

**Dot the pill down: Investigating the linguistic needs of foreign rugby players and
lexicon of spoken rugby discourse**

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Abstract

Traditionally a sport which is played predominantly in English speaking countries such as New Zealand, England, and Australia, rugby is gaining in popularity in other countries such as Japan. International rugby competitions, such as the World Cup and Super Rugby, and increased migration of players and coaches in the sport contribute to this growth. In rugby, spoken communication with community members such as players, coaches, managers, and the referee, is a fundamental aspect of the sport. This communication presents a challenge for second language (L2) learners wanting to immerse themselves in a foreign rugby setting, in the case of Japanese players coming to New Zealand or New Zealand players going to Japan. It also presents a challenge for English for Specific Purposes (ESP) teachers who might be faced with developing courses and materials to help second language speakers learn what they need to know to play rugby in another language, and in another country. To date, no research has focused on the linguistic and communicative needs of these players. A feature of this communication is technical language, for example *ruck*, *maul*, and *lineout*, but no previous research has focused on the specialised vocabulary of this game. This thesis explores two aspects in the rugby domain: vocabulary, especially technical vocabulary, and the linguistic needs of foreign players and coaches in New Zealand and Japan. The study consists of two phases which were conducted to address these gaps in the research.

To find out more about the nature of vocabulary in spoken rugby, phase one contained two parts. The first part was a corpus-based analysis of television commentary and team-based rugby speech. This analysis included conducting a lexical profile and vocabulary load analysis. The findings were compared to a written corpus, containing the Laws of Rugby. The results of the vocabulary profile analysis showed that high frequency vocabulary make up the majority words in each corpora. Additionally, other lexical items such as marginal words (e.g. fillers and swear words), as well as proper nouns, are important for comprehension, depending on the type of discourse. The vocabulary load analysis found 4,000 word families plus four supplementary lists and a rugby-specific list were needed for 98% comprehension in spoken rugby discourse.

Part two of the first phase investigated the nature of technical vocabulary in rugby discourse. Four single-word and multi-word unit word lists using the spoken and written corpora were developed for use in the language classroom. A total of 293 spoken and 250 written word types were selected from the corpora following frequency and semantic meaning principles to create the technical single-word lists, for example *lineout*, *tighties*, and *loosies*. The technical words provided 12.04% and 35.41% coverage of the corpora from which they were developed. Next, lists of technical multi-word unit lists with 223 spoken and 417 written units, such as *over the ball* and *lineout players*, were created to be used in conjunction with the technical single-word lists.

Phase two of the study utilised the results from phase one to conduct a linguistic needs analysis in New Zealand and Japan. Drawing on online surveys and semi-structured interviews, the results showed language difficulties occur throughout the rugby domain, especially when playing and practising the sport. Furthermore, general and rugby vocabulary are the two main language aspects affecting communication for both players and coaches. These findings indicate explicit instruction in spoken language is needed for L2 learners.

This thesis has methodological implications for research into spoken technical vocabulary, as well as pedagogical implications for ESP. For example, the word lists can be used to help L2 rugby players and coaches learn the vocabulary that they will encounter and be expected to use fluently in games and at practice. This means they can receive specialised support for their language needs and ultimately be able to perform at their highest level in the foreign rugby community.

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Chapter 1 Introduction

1.1 Introduction

Vignette: Experiencing rugby language difficulties

Since the age of nine, rugby has played a significant role in my life. Growing up in England, football was the most common sport played at school. One day, a childhood friend asked if I was interested in playing rugby for the local team. Not knowing how to play the sport, I was quite curious. Coming from football, I quickly found that much of the vocabulary was similar, with words such as *attacker* or *defender*, but at the same time quite foreign, with different positional names (e.g., *lock*, *prop*) and technical vocabulary (e.g., *scrum*, *lineout*, *maul*). These differences affected my ability to integrate into the team and at times, affected my ability to communicate during a game. During the course of the season, I acquired, through focusing on these differences, a basic level of rugby language and felt that I had become part of the team.

That same year, my parents told me we were moving to New Zealand and that the team in all black on the television, playing at the 1995 Rugby World Cup, was the national team of New Zealand. I spent that autumn glued to the television, watching my new national heroes, and listening to the commentary to gather as much information as I could about rugby in that country. Once I immigrated to New Zealand, I joined the school rugby team in the hopes of making new friends. I immediately realised the rugby language I acquired in England was somewhat foreign to my kiwi teammates and coach (e.g., the position *flyhalf* in England is *first-five eighth* in New Zealand). Using the same methods of watching rugby on television and immersing myself into the rugby team, I slowly again, acquired the necessary language I needed to play rugby in New Zealand.

My rugby journey then took me to a year-long high school exchange program to Japan. Using the sport, once again to assimilate into a new country and culture, I joined the school's rugby team. This time, however, the technical vocabulary in the sport was not the

only linguistic barrier I needed to overcome. Pronunciation of technical vocabulary and new and altered phrases were also problematic. These difficulties affected communication with both my teammates and the coaches. A lack of rugby on television also meant I needed to actively seek answers to the language difficulties I faced. Using communication and vocabulary learning strategies, I acquired an adequate level of Japanese technical rugby language to adapt and join my new team.

Experiencing and observing firsthand that non-native speaking players and coaches required assistance with the language in the specialised domain, contributed to my belief that rugby players and coaches need linguistic assistance when they are in another country playing or coaching the sport. For these players and coaches, there is little support to acquire the necessary vocabulary for assimilating into the foreign rugby community. The current research, then, arose out of my personal interest and later experiences of teaching English as a foreign language in Japan. This background led me to investigate the lexicon of rugby and the linguistic needs of L2 rugby players and coaches in Japan and New Zealand, with an ultimate pedagogical goal of creating specialised ESP courses to assist learners overcome these difficulties.

1.2 Aims of this thesis

This thesis has three main aims. Two of the aims focus on vocabulary. The first aim is to explore the lexicon of spoken and written rugby discourse. To undertake this study, a spoken rugby corpus, containing a 35,658 word Television commentary corpus and a 25,637 word Interactional rugby corpus from Wilson (2011), is examined by conducting a lexical profile and vocabulary load analysis. The results of the analysis are compared to a created 37,314 word written corpus, containing the rule book, *Laws of the Game (Laws of the Game Rugby Union, 2017)*. This analysis can reveal what are the most frequent words in spoken and written rugby discourse that players and coaches need for communication in rugby.

The second aim of this thesis is to investigate the nature of technical vocabulary in rugby discourse. This research involves analysing the vocabulary in the spoken and written rugby corpora through corpus-based and semantic-based approaches to identify technical rugby vocabulary in each discourse. From the analysis of the corpora, two pedagogically

orientated spoken and written technical single-word lists are created for use in an ESP rugby course by teachers and learners. The technical spoken word list contains such items as *scrum*, *lineout*, and *loosies*, whereas the technical written word list contains items such as, *flanker*, *touchline*, and *tighthead*. In addition to technical single words (Nation, 2013), research has shown the importance of multiword units in language use and learning (Ackermann & Chen, 2013; Biber, 2009; Hyland, 2008a). However, little has been published on technical multiword units in rugby beyond work by Lewis and Kuiper (2013) and Wilson (2011). Therefore, using a frequency-based approach and the technical single-word lists, technical multi-word units are identified and two technical multiword unit lists for spoken and written rugby discourse are created.

Acquisition of technical single and multiword units are crucial for learners in an ESP setting for two reasons. First, knowledge of this specialised vocabulary is important for L2 learners to join a specific community (Coxhead, 2013; Woodward-Kron, 2008; Wray, 2002). Second, teachers can use the lists to decide what words to teach, why to teach them, and how the word lists can be implemented into the language classroom (Nation, Coxhead, Chung, & Quero, 2016). By analysing both single and multiword units, we can fully understand the technical nature of the rugby lexicon. Finally, as part of the needs analysis (see below) and drawing on the technical single word lists, a vocabulary task was developed to look into the receptive knowledge of technical vocabulary of rugby players and coaches, as well as a rugby-based narration task in a small study of spoken productive technical vocabulary use.

The third aim of the thesis is to explore the linguistic and communicative needs of players and coaches in Japan and New Zealand by conducting a needs analysis. Typically, this part of the research would be the first in a study in ESP, but in this case, the results of the corpus-based analysis informed the development of the six online surveys and semi-structured interview tools used in the needs analysis to collect data from foreign and native speaking coaches and players in Japan and New Zealand. The aim here is to ascertain what general language difficulties players and coaches face within the rugby domain, as well as how rugby language affects communication. The results of the needs analysis provide insights into what aspects of language may affect learners' playing and coaching ability, and in turn,

guide pedagogical developments for an ESP curriculum specifically designed to meet these linguistic needs.

1.3 Importance of this study

To the best of my knowledge, very few studies so far have investigated the linguistic needs of athletes. One study focused on soccer players in the Netherlands (Kellerman, Koonen, & Van der Haagen, 2005). The needs analysis revealed that communication is an essential component for playing a sport, with the researchers concluding that there is a need to conduct more detailed investigations into the linguistic needs of sports players. In the case of rugby, a study on the migration of non-native speaking players was conducted, finding that language is a key component affecting assimilation (Sakata, 2004). Conducting a needs analysis in rugby will assist in identifying the needs of learners, both players and coaches, which will in turn, provide the information needed to create specialised courses and materials to meet these needs.

Studies investigating vocabulary in English for Specific purposes (ESP) have largely focused on specialised vocabulary in English for Academic Purposes (EAP), noting that technical vocabulary can make up more than 30% of an academic text (Chung & Nation, 2003, 2004). In turn, general academic word lists, such as the Academic Word List (Coxhead, 2000), the Academic Formulas List (Simpson-Vlach & Ellis, 2010), and the Academic Spoken Word List (Dang, Coxhead, & Webb, 2017) have been created. These word lists are designed for the goal of aiding learners in learning the most frequent vocabulary in academia. Several studies in EAP have also investigated technical vocabulary in more specialised fields, such as engineering (Ward, 1999), pharmacology (Fraser, 2009), and chemistry (Valipouri & Nassaji, 2013) with the same goal of aiding learners in those particular areas. There has been an ever-increasing number of lexical studies in non-university domains, such as trades education (Coxhead & Demecheleer, 2018; Coxhead, Demecheleer, & McLaughlin, 2016; Coxhead, McLaughlin, & Reid, 2018), or finance (Tongpoon-Patanasorn, 2018). While these studies are valuable for highlighting the prevalence of academic and technical vocabulary in academia and trades education and subsequently creating specialised word lists, these lexical analyses of technical vocabulary and word lists may not be applicable to non-university fields, such as rugby.

In the case of rugby, a number of studies have found that specific vocabulary is prevalent in the sport (File, 2013; Wilson, 2009a, 2009b). The occurrence of multiword units (MWU) (e.g., *ball in hand, over the top, back on the inside*) are especially noted as being prevalent, with several studies indicating they are used within television (TV) rugby commentary (Kuiper, 1991; Kuiper & Lewis, 2013) and team-based rugby speech (Wilson, 2009a, 2011). As a lack of technical vocabulary knowledge can hinder someone from joining a particular community (Coxhead, 2013; Woodward-Kron, 2008; Wray, 2002), knowledge of specialised rugby vocabulary is critical for foreign players and coaches to successfully immerse into a team. However, no studies to date have empirically examined the lexicon of rugby discourse and so it is empirically unknown what lexical challenges non-native speaking players and coaches face.

With the growing number of non-native speaking players and coaches in rugby, the current study provides further insight into what are the linguistic and communicative needs of non-native speaking players and coaches. The results of this thesis will provide the evidence needed to create a principles-based ESP rugby course, which can be adapted for players and coaches in Japan and New Zealand.

1.4 Organisation of the thesis

This thesis consists of eight chapters. This introductory chapter is followed by a literature review (Chapter 2), which provides an overview of research related to needs analysis in ESP and technical vocabulary in specialised spoken discourse. Chapter 3 contains a detailed description of the methodology adopted for the two phases in this study. The first section in this chapter introduces the methodology used in part one of phase one to develop the spoken and written rugby corpora for this study. The first section also describes the data analysis approaches used to examine the lexical demands of the corpora. The second section of the chapter presents the approaches used in part two of phase two to identify technical vocabulary, both single and multiword units, in the spoken and written rugby corpora and the principles followed to create the technical single-word and multiword unit rugby lists. The final section presents the methods used in phase two of the study and provides a detailed description of the linguistic needs analysis. Information regarding the 86 respondents in Japan and New Zealand is presented, in addition to the two data collection

methods, namely online surveys and semi-structured interviews, used in the linguistic needs analysis.

To assist the reader in understanding the full scope of language in rugby, starting from the general linguistic needs of players and coaches to specific lexical items in the domain, the thesis results are presented in three chapters. First, Chapter 4 presents the findings of phase two pertaining to general language difficulties that arise in rugby. Then, Chapter 5 focuses on the findings of phase two related to the needs of players and coaches on the topic of rugby language. Finally, Chapter 6 presents phase one findings from the vocabulary load and profile analysis as well as the technical single and multiword unit word lists.

The results have been presented in this order to show how the data from the previous chapter interacts with and builds on the results in the next chapter. For example, the survey includes the technical vocabulary identified in the corpora and the narration task was based on several sections of play from the spoken corpus created from the television commentary.

Chapter 7 discusses the main findings of the thesis in more depth under three themes: (1) the importance of spoken rugby discourse; (2) technical rugby vocabulary; and (3) how these findings can be used for the development of a rugby-specific framework for an ESP course which can be adapted for players and coaches in New Zealand and Japan. Chapter 8 begins with the theoretical, methodological, and pedagogical contributions of the study. This chapter also discusses the limitations of the research and points out future directions for research.

Chapter 2 Literature review

2.1 Introduction

This thesis explores the lexical and communicative demands of spoken rugby discourse and examines the nature of technical vocabulary in the sport. The goal of the study is to assist second language (L2) players and coaches improve their language proficiency to successfully immerse in the foreign rugby community. The chapter begins by explaining why it is important to research these demands in the rugby context (Section 2.2). In the next section (Section 2.3), I will discuss the role of conducting a linguistic needs analysis in English for Specific Purposes (ESP) settings, such as is the case in this thesis. This section will examine different approaches to conducting a needs analysis (Section 2.3.2) and review previous analyses in ESP settings (Section 2.3.3), which highlight the need to conduct research in non-university disciplines such as rugby. Section 2.4 discusses the importance of investigating the lexical demands in ESP settings and how best to conduct a vocabulary profile analysis in spoken rugby discourse. The next two sections look at the role of technical vocabulary (Section 2.5) and technical multiword units (MWUs) (Section 2.6) in rugby. Section 2.5 introduces definitions of technical vocabulary from previous literature and their classification in rugby. Section 2.5.1 then reviews three important approaches to identifying technical vocabulary that is used in this thesis. These are: A corpus-based approach (Section 2.5.1.1), a semantic-based approach (Section 2.5.1.2), or a mixed-method approach (Section 2.5.1.3). Section 2.6 then introduces MWUs in rugby, firstly defining the term (Section 2.6.1) then examining the methods of identifying MWUs in specialised domains, such as rugby (Section 2.6.2). Section 2.7 examines principles that need to be considered when creating word lists, such as the unit of counting (Section 2.7.1) and if the word list is developed using a common core or specialised approach (2.7.2). Then literature on disciplines-specific spoken word lists is reviewed (Section 2.7.3). Finally, Section 2.8 summarises the main issues to be addressed in this thesis.

2.2 Why is language in rugby worth investigating?

Since 1823, when rugby was invented by William Webb-Ellis after picking up a football and running with it, the sport has created a “global sub-culture, with a history and language of its own” (Wilson, 2011, p. 6). This specific language is central to the sport, allowing anyone interested in rugby to converse with each other and thus, further solidifying this sub-culture by having its own unique lexicon (Wilson, 2011). As with other sub-cultures, the domain of rugby contains a number of sub-domains where the language is utilised to communicate with the other members, such as TV rugby commentary, post-match interviews, and team-based speech, which is used for example at practice, during the game, and in the locker room. Academic research into the specific language aspects in rugby, such as how this language is being used by its members, what is the vocabulary coverage in the specific domain, and how the language affects communication, is beneficial to the growth of the sport. Researching these issues will provide a broader view of how to assist players and coaches to immerse into the foreign rugby community.

To date, very little research has been conducted investigating language in the rugby context. The few studies that do investigate this language examine the sociocultural aspect of rugby and how the language is used between and by members of teams. These studies mainly analyse discourse within two sub-domains; team-based speech (Wilson, 2009a, 2009c, 2011) and TV rugby commentary (Desmarais & Bruce, 2009, 2010; Kuiper, 1996; Kuiper & Lewis, 2013). Although specific language features, such as vocabulary, are noted as prominent within the domain (Kuiper & Lewis, 2013; Wilson, 2011), none of the studies has explicitly focused on lexis. The following section details previous research on the area of English for Specific Purposes (ESP), focusing on the role of conducting a linguistic needs analysis in such domains as rugby.

2.3 What is English for Specific Purposes (ESP)?

The present study sits within the field of English for Specific Purposes (ESP), which has had various definitions since its emergence in the 1960s (Tinh, 2018). The central feature of ESP is that it is based firmly on the needs of learners. For example, Hutchinson and Waters (1987) define ESP not as a *product*, but as an *approach*, meaning that ESP is not a particular kind of language, teaching material or methodology. Rather, ESP, and specifically an ESP

course, is created based on the learners' needs and learners' reasons for learning. Strevens (1988) extends this definition by providing four absolute characteristics of ESP, which are that it is: designed to meet the specified need of the learner, related in context to particular disciplines, occupations, and activities, centred on language appropriate to those activities in syntax, lexis, discourse, and semantics, and sits in contrast with 'General English'. Strevens (1988) suggests that there are two variable characteristics of an ESP course: ESP may be restricted as to the learning skills to be learned and ESP may not be taught according to any pre-ordained methodology.

A more recent definition sums up this point. Richards and Schmidt (2010) define ESP as "the role of English in a language course or programme of instruction in which the content and aims of the course are fixed by the specific needs of a particular group of learners" (p. 198). All three definitions show how ESP is closely linked to the learners' needs. If the specific needs of these learners are unknown and not analysed, a course to meet these needs cannot be designed. Simply put, "if there is no needs analysis, there is no ESP" (Brown, 2016, p. 5).

In line with the current study, we can see that these definitions affirm that if a language course was to be created for language in rugby, it fits within the ESP spectrum, as such a course would be for the needs of players and coaches. Therefore, conducting such an analysis at the beginning of an ESP rugby course would be crucial to meet the needs of L2 players and coaches. The following section discusses needs analysis in more detail in relation to its role in ESP.

2.3.1 The role of needs analysis

The role of a needs analysis in the ESP context is to identify the learners' needs, and in turn, gather crucial information that will dictate the course design, teaching methods, and the learning approach (Brown, 2016; Hutchinson & Waters, 1987; John, 1991; Munby, 1978; Nunan, 1988; Songhori, 2008). This information could be "language skills a learner needs in order to perform a particular role" or "a gap between what students are able to do and what they need to be able to do" (Richards, 2001, p. 52). The results of a needs analysis also are crucial when developing the language curriculum (Fatihi, 2003; Kaur, 2007). These

results may include setting the goals of the course (Nation & Macalister, 2010), and creating valid and relevant activities that meet the needs of learners (John, 1991; Nation & Macalister, 2010). Furthermore, a needs analysis allows the course designer to understand to what extent the course should focus on general (wide-angled) aspects of language, such as general vocabulary, or specialised (narrow-angled) skills, to meet the needs of the learners (Basturkmen, 2010).

In addition to conducting a needs analysis prior to the start of a language course, it should also be considered as an on-going process, especially if the ESP course is recently developed (White, 1988). Conducting a smaller need analysis assists in evaluating the course in a number of ways, such as understanding if the materials, activities, teachers, and the course itself, was able to meet the needs of learners. This in turn can be used to improve the curriculum (Basturkmen, 2010; Richards, 2001). By conducting a needs analysis at the “pre-stage” (Tinh, 2018, p. 20) and the evaluation-stage of a ESP course, a curriculum specific to meeting the linguistic needs of the learners can be designed. In the case of conducting a needs analysis in the rugby domain, there is an absence of actual learners in the language classroom. Instead, there are various groups of people, such as players and coaches, that may need assistance in their language needs. Therefore, this thesis will look more widely, to explore the needs of these groups in the Japan and New Zealand rugby domain. The next section will discuss literature pertaining to the varying frameworks and methods that can be used to conduct a needs analysis.

2.3.2 Approaches to needs analysis

There are several approaches to conduct a linguistic needs analysis (Basturkmen, 2010). The two most noted frameworks noted in the literature are Munby’s (1978) Target Situation Analysis and Hutchinson and Waters’ (1987) Learning-Centred Approach.

The Target Situation Analysis by Munby (1978) is regarded as the best-known model of a needs analysis, because it involves an in-depth investigation into the communicative needs of a specific group of learners. This analysis is language-centred, gathering information on aspects such as the participant, domain, setting, the interaction in the setting, instrumentality, dialect, target level, communicative event, and communicative key (the

main goal of communicating). With all this information on the target situation, the information is then “converted into a communicative competence specification, from which a sequenced syllabus can be drawn up” (Jordan, 1997, p. 24). While Munby’s (1978) target situation analysis is considered by Hutchinson and Waters (1987) as “the most thorough and widely known work on needs analysis (p. 54), they criticize it for being too language-focused. West (1994) notes this approach is inflexible, complex and time consuming. Ha (2005) also notes it is time consuming, as well as costly, vague and impractical when implementing the approach in the language classroom.

To remedy criticisms of Munby’s (1978) target situation analysis, Hutchinson and Waters’ (1987) learning-centred approach contains two separate frameworks: target needs and learning needs. Target needs focus on ascertaining “what the learner needs to do in the target situation” (Hutchinson & Waters, 1987, p. 54). The *target needs* framework is divided into three areas of interest: What is necessary in the learners’ use of language? (*necessities*), what do the learners lack? (*lacks*), and what do the learners want to learn? (*wants*). The *learning needs* focuses on “what the learner needs to do in the target situation” (Hutchinson & Waters, 1987, p. 54). This framework aims to understand who the learners are, why they are taking an ESP course, how they learn the language, what resources are available, and when and where the course will take place.

More recent literature combine elements of Munby’s (1978) and Hutchinson and Waters’ (1987) approaches when discussing the process of conducting a needs analysis and take into account the complexities of conducting a needs analysis in the ESP context (Basturkmen, 2010; Nation & Macalister, 2010). Rather than having a ridged framework such as a target situation analysis (Munby, 1978), researchers, such as Basturkmen (2010) and Nation and Macalister (2010), provide guidelines and questions that when answered, will assist in understanding the needs of the learners. Hyland (2008b) summarises the approach to conducting needs analysis by stating “needs analysis is like any other classroom practice in that it involves decisions based on teachers’ interests, values, and beliefs about teaching, learning, and language” (p. 113). Simply put, conducting a needs analysis needs to be adapted according to the specific situation and the needs of the learners. In addition to

using a framework or a set of guidelines in a needs analysis, data collection methods also need to be considered.

To gather all the necessary information to understand the needs of the specific learners, Long (2005b) stresses the importance of using multiple sources and methods during the data collection phase. *Sources* are the different groups within the context, such as the learners, teachers, applied linguists, or domain experts (Dudley-Evans & St. John, 1998; Long, 2005b; Richards, 2001). *Methods* are different research tools used to collect the data from the sources, such as questionnaires, interviews, observations, and performance tests (Brown, Hudson, Norris, & Bonk, 2002; Hutchinson & Waters, 1987; Long, 2005b; McNamara, 1996). Serafini, Lake, and Long (2015) suggest that by collecting data from two or more sources and two or more methods, data will be more reliable and valid. Serafini et al. (2015) also provide a detailed list of 32 ESP need analysis studies in which multiple sources and multiple methods were used before data was triangulated to understand the needs of the learners. The list shows that these studies were conducted in a wide variety of contexts, including English as a Foreign Language (EFL) (e.g., in Turkey and Hong Kong), English as a Second Language (ESL) (e.g., in the United States of America), and specialised occupational domains (e.g., Aviation, Business, Banking, Education, Healthcare, and Clothing Manufacturing). These studies show how needs analyses conducted in specialised occupational domains are especially relevant to this thesis as sports is a non-university ESP context.

The process of using multiple sources and data methods, referred to as triangulation (Long, 2005b), compares all the collected data to accurately identify the needs of the learners. For example, Cowling (2007) conducted a needs analysis during the materials development stage for an intensive English course at a Japanese industrial company. During the analysis, unstructured interviews, semi-structured interviews, open-ended questionnaires, and structured questionnaires were used to collect data from course administrators, English teachers, trainees, and senior employees. From triangulating the data, a specifically designed intensive syllabus was created and was accepted by the clients. On the importance of triangulating data in a needs analysis, Cowling (2007) notes “casting a large net to cover many sources allowed for more opportunities to identify needs and to filter out any

inaccurate perceived needs” (p. 429). Therefore, using multiple sources and methods add further reliability to the gathered data in a needs analysis. These methods also apply to conducting a needs analysis in the rugby domain, where the specific groups of people, such as native and non-native players and coaches, can be surveyed and interviewed to ascertain their linguistics needs. This thesis will therefore conduct such an analysis using the aforementioned sources and methods.

2.3.3 Language and migration in sport

Several sociological case studies (Maguire & Stead, 1996, 1998; Stead & Maguire, 2000) investigating the migration of sports players note that language is a key component for the athletes when deciding where to migrate. Although these studies are not actively seeking to investigate the linguistic needs of sports players and coaches and the role that language plays in sport, the results highlight the need to conduct an analysis within the specialised domains. The following studies provide examples of how language has been investigated in the sports domain and highlights the language demands of international sports players and coaches.

Stead and Maguire (2000) investigated Nordic/Scandinavian football players’ views on migrating to England to play the sport. Forty-seven participants were interviewed and sent questionnaires, asking questions such as “Why do elite soccer (football) players decide to play their trade outside their home country? Why do they choose particular destinations? How do they deal with the personal and professional challenges that arise? What are their views about soccer (football) migration?” (p. 38). The players indicated that the ability to speak the language was a key factor when deciding to migrate. This means that because the players speak English, they decided to migrate and play football in England, rather than non-English speaking countries, such as Germany (p. 49). Maguire and Stead (1998) analysed football player migration in the European Union and Europe’s football confederation and found common language was important for migration. The English league contains a high number of Scottish and Irish players, due to the shared culture and language (Maguire & Stead, 1998). Similarly, the Spanish league has a high number of South American players opting to play there for the same reasons. The same authors conducted similar studies in cricket (Maguire & Stead, 1996) and football (Stead & Maguire, 1998) with similar findings.

The results of these studies reveal that the language barrier was a main barrier for players and coaches to successfully assimilate into the foreign sporting community.

In the case of rugby, Sakata's (2004) sociological thesis investigated how Non-Native Speaking (NNS) players have influenced the transformation of Japanese rugby, such as the country's professional league and national team. In one case study, six professional NNS players were interviewed to ascertain their opinions of playing in Japan and their experience of assimilating into the country. During the unstructured interviews, many of the players remarked on how language was a constant barrier that affected their "quest for knowledge" (p. 62), both when playing and outside the rugby context.

The five studies discussed above identify language as an integral aspect affecting the migration of sports athletes. However, as these studies focused on a broad spectrum of sociological issues, language difficulties were only identified at the surface level. Therefore, more in-depth studies in all sports is required to understand the needs of players and coaches in different cultural and linguistic contexts in terms of specific learning needs and difficulties.

To the best of my knowledge, only three previous studies have exclusively investigated the linguistic needs of sports players. All three investigated football players in European clubs and their experience with language difficulties when playing in a multilingual team. Giera, Giogianni, Lavric, Pisek, Skinner, and Stadler (2008) conducted their study using multiple methods (audio and video recordings of interactions, observations, interviews) and multiple sources (players and coaches) to examine communication within three multilingual professional football teams in Austria. Giera et al. (2008) focused on strategies used and structures put in place within clubs to make communication successful between the players and coaches. A main part of the study describes an interview with a referee and another with a player/coach on communicating with multilingual football teams. The referee explained that language and communication is not only important within the football team but also the team of referees. English was the lingua franca and therefore, when referees or players did not understand English, communication breakdowns occurred. In this case, another player or the captain had to become an interpreter. The player/coach interviewed

in the study noted communication difficulties were more urgent for coaches due to needing to effectively communicate with all players within a multilingual team. Therefore, it was common for a coach to speak multiple languages. While this study provides a qualitative insight into the needs of players, coaches, and referees, little information from the other data collection methods is mentioned. Triangulating the data would assist in validating the results and further strengthen the notion that communication is critical in football. As such, this thesis will use triangulation to validate the results of the linguistic needs analysis.

The second study investigating the linguistic needs of players was conducted by Ringbom (2012). Similar to Giera, et al. (2008), this study also investigated aspects of communication, such as language problems and strategies used, but within the context of a Finnish professional football team. A total of 32 questionnaires were collected from multiple sources (players, coaches, club officials) in the team. The results revealed a number of language difficulties occurring in the team in different situations. For example, during the game, two languages (Swedish and English) were concurrently used by players, which affected communication and in turn, affected the players' ability to successfully attack or defend (p. 190). To overcome language difficulties on and off the field, the main strategy was using multilingual teammates to translate for foreign players with limited language skills. Ringbom (2012) reiterates the importance of language for non-native speaking players when integrating into a foreign football team. Ringbom (2012) offers recommendations to multilingual football teams, such as providing new foreign players time to learn technical football vocabulary because it would assist in decreasing language problems within the team. As with Giera, et al. (2008), this study highlights language difficulties occur in multilingual teams which affect the players' footballing ability. While Ringbom (2012) provides possible solutions, only using one data collection method (questionnaires) weakens the validity of the results. This thesis will not only remedy this issue, but also ascertain if Ringbom's (2012) recommendation of teaching technical vocabulary is a viable method to assist learners in the sports domain, focusing on technical rugby vocabulary.

The final study that investigates the linguistic needs of athletes is also conducted in the European football context. Kellerman, Koonen, & van der Haagen (2005) conducted a needs analysis on the language provisions for foreign footballers in two Dutch leagues. Multiple sources (players, coaches, language teachers, press officer) and methods (questionnaires,

interviews) were used to collect information regarding the languages used at the club, the facilities for language learning, and opinions on the importance of Dutch being spoken by NNS players. In total, 38 questionnaires and five interviews were completed. All sources in the study noted good communication is an essential component for playing and believed language materials focusing on specific football language are necessary. The researchers conclude that the results indicate there is a need to conduct a detailed investigation into the language needs of sports players.

The three studies above revealed language difficulties occur within multilingual sports teams. Furthermore, their results showed the importance of good communication when playing, practising, and strategising. Following Long (2005) and Serafini et al (2015), the studies used multiple sources and methods during the data collection phase. However, all three studies lack specific information regarding the linguistic needs of players. For example, although all three studies used questionnaires as a data collection method, none carried out an in-depth statistical analysis of the results. Moreover, the results in each study were generalised, so it is unclear exactly what the participants' views were on specific questions. Only Ringbom (2012) provides the reader with information on the data collection method used in the analysis, meaning it is not possible to replicate these studies in a different context. The main piece of information missing from all three studies is how the results could be used to meet the needs of the players. None of the studies expand on their findings to discuss ways that technical football vocabulary, communication strategies, or specific materials could be incorporated into an ESP classroom. Without this much-needed step in the needs analysis process, merely identifying communication difficulties within a sports team does little to remedy the issue. Therefore, although these studies provide a glimpse into the needs of players, further, more detailed research is needed in non-university domains, such as rugby, to understand the specific linguistic difficulties of the sources.

In brief, this section shows the importance of conducting a needs analysis to identify the linguistic needs of ESP learners. The literature shows there are a number of approaches to conducting an analysis, which advocate for utilizing multiple sources and methods to validate the collected data. By understanding the learners' needs, an ESP course specifically

designed to meet these needs can be designed. Although research in the sports context, both football and rugby, has repeatedly revealed there are language difficulties occurring within these domains, no study has thoroughly investigated the needs of rugby players and coaches in the foreign setting.

2.4 What are the lexical demands of spoken rugby?

Vocabulary is an important factor in successful listening comprehension, but little research has investigated the lexis in rugby. One way to address this gap is to carry out analyses to understand the lexical coverage of a text. Nation (2006) defines lexical coverage as “the percentage of running words in the text known by the reader” (p. 61) or in the case of spoken rugby texts, known by the listener. It is important to measure the lexical coverage of a text as it may be the most influential factor affecting comprehension (Laufer & Sim, 1985). The majority of studies measuring lexical coverage to date have investigated general written texts, such as graded readers and newspapers (Nation, 2006) and academic texts, such as engineering textbooks (Hsu, 2014). To comprehend these texts, two lexical coverage thresholds of 95% and 98% are typically sought in the literature (Hu & Nation, 2000b; Laufer & Ravenhorst-Kalovski, 2010; Laufer & Sim, 1985). With advances in technology however, recordings of varying discourse types can now be collected and analysed (Adolphs & Knight, 2010). The following section will examine studies that have investigated the lexical coverage in various spoken discourses in ESP. This research is important because this study investigates the lexicon of rugby, which is primarily spoken.

2.4.1 Vocabulary profile analyses in spoken discourse

Similar to studies investigating written texts, the 95% and 98% coverage thresholds are seen as the minimal and optimal comprehension thresholds in spoken texts. Van-Zeeland and Schmitt’s (2013) study examining listening comprehension of short stories found 95% coverage provides “good but not necessarily complete” comprehension, whereas 98% provides “very good comprehension” (p. 18-19). Table 2.1 also shows that studies on spoken discourse have mainly examined general conversation rather than ESP. The four general spoken discourse studies in the first four rows of Table 2.1 suggest that with proper nouns (e.g. names of people and places) and marginal words (e.g. *um*, *ah*, swear words) 2,000-3,000 word families and 6,000-7,000 word families are needed to reach 95% and 98%

coverage, respectively. Academic spoken discourse, according to Dang and Webb's (2014), has a heavier vocabulary load than general English with 3,000-5,000 word families and 5,000-13,000 word families needed to reach 95% and 98% coverage. Dang and Webb's (2014) study also revealed that different genres have varying vocabulary demands, such as Arts and Humanities and Physical Sciences.

To the best of my knowledge, only two vocabulary load analyses has examined non-university spoken discourse (Coxhead & Demecheleer, 2018; Coxhead et al., 2016). Coxhead and Demecheleer (2018) examined the vocabulary demands of spoken discourse in plumbing, by recording and transcribing 18 hours of practical and theoretical plumbing classes at a polytechnic. Nation's (2012) 25,000 BNC/COCA word lists were used as the base word lists to conduct a vocabulary load analysis. Coxhead and Demecheleer's (2018) analysis revealed that 95% coverage was reached by 3,000 word families plus proper nouns and marginal words, and 98% coverage was reached by 5,000 word families plus proper nouns and marginal words.

Table 2.1: Summary of spoken discourse vocabulary load studies to date

Study	Spoken discourse	Vocabulary load at 95% coverage	Vocabulary load at 98% coverage
General spoken discourse			
Nation (2006)	General conversation	3,000	6,000-7,000
Webb and Rodgers (2009a)	Movies	3,000	6,000
Webb and Rodgers (2009b)	TV programs	2,000-4,000	5,000-9,000
Van Zeeland and Schmitt (2013)	Short stories	2,000-3,000	6,000-7,000
Academic spoken discourse			
Dang and Webb (2014)	Academic spoken English texts	4,000	8,000

	Arts and Humanities spoken texts	4,000	7,000
	Life and Medical Science spoken texts	5,000	13,000
	Physical Science spoken texts	4,000	10,000
	Social Sciences spoken texts	3,000	5,000
Non-university spoken discourse			
Coxhead and Demecheleer (2018)	Plumbing	3,000	5,000

(Note: the unit of counting is word families)

In brief, although a number of studies have investigated the lexical demands of general communication, there is a gap in non-university spoken discourse vocabulary load analysis. Conducting such an analysis on spoken rugby vocabulary could highlight the need for further investigations, such as examining technical vocabulary and developing pedagogical word lists, and further provide insight on the lexical demands of listening in English.

2.5 What is technical vocabulary and why is technical vocabulary important in rugby?

Technical vocabulary can be defined as words “which are recognisably specific to a particular field” (Schmitt, 2010, p. 77). This means that these words are narrowly used within a specific subject area (Chung & Nation, 2004; Nation, 2008, 2013). Due to this narrow use, knowledge of this technical language may be limited to people within that area. Coxhead (2013) explains:

People outside that academic or professional sphere might have some knowledge of this vocabulary but the people inside these areas of language use would be expected to be able to understand and use this language fluently (p. 116).

The use of technical vocabulary can range from items that are solely used in a particular field to items that occur in general language but have a technical meaning in a field (Coxhead, 2018).

There are various terms used to label technical vocabulary in the literature, including semi-technical vocabulary (Peters & Fernández, 2013), specialised vocabulary (Coxhead, 2018), jargon (Woodward-Kron, 2008), and technical vocabulary (Chung & Nation, 2003). This thesis will use the term **technical vocabulary** to refer to both technical single- and multi-word units; and will be differentiated by referring to single-words as **technical words** and multi-word units as **technical multiword units (MWU)** (see Section 2.6).

Previous literature categorised technical vocabulary as its own category in one of the four parts of vocabulary; high, academic, technical, and low frequency vocabulary (Nation, 2001). However, with researchers noting that academic and technical vocabulary occur throughout high and low frequency vocabulary (Chung and Nation, 2003; Nation, 2013), Schmitt and Schmitt (2014) restructured this framework, categorising vocabulary as having three main bands, high, mid, and low frequency. High frequency vocabulary (e.g., *the*, *car*) is defined as the most frequent 3,000 word families in English. Mid frequency vocabulary (e.g., *adore*, *giggle*) are the most frequent 4,000 to 8,000 word families. Finally, low frequency vocabulary (e.g., *antonym*, *joggle*) is anything beyond the most frequent 9,000 word families. This thesis uses Schmitt and Schmitt's (2014) classification of vocabulary to define high, mid, and low frequency vocabulary and notes technical vocabulary can cut across all three vocabulary bands.

Technical vocabulary in ESP is important for several reasons. Firstly, technical vocabulary can account for a large percentage of running words in a technical written text or technical spoken discourse. For written texts, almost one in every three words could be technical (Chung & Nation, 2003). Chung and Nation (2003) found 31.2% of the total tokens (running words) in anatomy texts are technical. In medical textbooks, Quero (2015) found 37% of the tokens were technical. Studies investigating non-university ESP written texts have similar results. Coxhead and Demecheleer (2018) revealed 35.58% of the tokens in their Plumbing

corpus are technical. In a Fabrication written corpus, Coxhead, McLaughlin, and Reid (2018) found technical vocabulary made up 30.47% of the total tokens.

Although only a few studies have investigated the percentage of technical vocabulary in ESP spoken discourse, their results show it still accounts for a large proportion of running words; with one in every ten words being technical (Coxhead, Parkinson, Mackay, & McLaughlin, 2020). Coxhead and Demecheleer (2018) found 12.7% of spoken plumbing discourse is technical and Coxhead et al., 2018 found 9.18% of spoken fabrication discourse is technical.

Another reason why technical vocabulary in ESP is important is by understanding and using the vocabulary in a particular field, the user can join a particular community, as mentioned above (Coxhead, 2013; Woodward-Kron, 2008; Wray, 2002). The knowledge of technical vocabulary in a particular field is closely related to its content knowledge (Woodward-Kron, 2008). However, with only a few studies having investigated ESP spoken vocabulary, as mentioned above, there is still a gap in the literature. Furthermore, to date, no study has elicited the productive use of technical vocabulary from learners. Therefore, this thesis will seek to investigate spoken rugby vocabulary, both its receptive and productive use in the domain.

When equating this research to the rugby context, knowledge of technical rugby vocabulary can assist non-native speaking players and coaches in learning particular rugby skills (i.e. become better at the sport), and in turn, successfully join a foreign rugby community, as it did in my own rugby experience. Technical vocabulary is an important avenue for research as part of a needs analysis for ESP in rugby.

2.5.1 Technical vocabulary in football and rugby

As with other specialised fields, each sport has technical vocabulary of its own. The majority of literature on technical vocabulary focuses on football, with entire books devoted to investigating the linguistic features of this sport (Lavric, Pisek, Skinner, & Stadler, 2008). These studies however have primarily focused on technical football multiword units, such as *corner ball*, or *to score a goal* (see Section 2.6 for details on such studies). The studies that have focused on technical football words investigated how these items are used in sub-

domains, such as on TV, radio, in online commentary (Bergh, 2011; Humpolík, 2014), and in written match reports (Schmidt, 2008). Studies have also investigated the spread of English technical football words in non-English countries, such as Germany and France (Bergh & Ohlander, 2012a, 2012b, 2017). The issue of how the investigated technical words were selected or categorised as technical is contentious. For example, Bergh and Ohlander's (2012, 2017) studies that investigated the influence of technical English football words in 16 European languages used a set of 25 English football words, including *match*, *corner*, and *dribble*. These words were selected from *A Dictionary of European Anglicisms* (Görlach, 2001) with the criteria being they were "central to the football domain" (Bergh & Ohlander, 2012a, p. 287). Although the methods of using a dictionary and consulting an expert are viable approaches to identify if a word is technical (Chung & Nation, 2004; Coxhead, 2018; Schmitt, 2010), the dictionary used in this instance was a general dictionary and therefore, not technical. Furthermore, Görlach (2001) does not explain the approach used to identify these words as technical.

To the best of my knowledge, only one technical dictionary has been compiled for the specialised area of football. Schmidt (2008) created a 1,380,000 written and spoken corpus using football match reports and radio commentaries to construct a 1,926 token dictionary that contains 599 English, 535 French, and 792 German technical football words. Despite creating such a large corpus for a technical dictionary, there is crucial information lacking to describe the approach used or principles followed to identify technical football words from the corpus. The only information regarding this step is that Schmidt (2008) selected items from a word list of the corpus (p. 15). With no further details, the validity of the technical dictionary is difficult to ascertain and replication is virtually impossible.

Turning to rugby, very few studies have investigated technical vocabulary in this specialised field, with the majority focusing on the use of technical rugby MWUs in commentary (see Section 2.6) (Kuiper, 1996, 2004; Kuiper & Lewis, 2013). Although the presence and importance of technical rugby words have been discussed in the literature (Kuiper & Lewis, 2013; Wilson, 2011), no study to date has investigated these items. In Wilson's (2011) ethnographic study of interactions in a rugby team, he acknowledges the extensive use of technical rugby words in the sport which are used by players, coaches, and fans to present

themselves as members of the domain. Wilson (2011) also notes that as an insider, he drew on his own experience as a player to identify words such as *lineout*, *ruck*, and *scrum* as technical (p. 231). This example indicates that someone who plays the sport might understand the importance or technicality of these items, but technical vocabulary in rugby remains an unexplored area in ESP lexical studies.

2.5.3 How to identify technical vocabulary?

The focus of this section is understanding how to identify this type of vocabulary in specialised written texts and spoken discourse. The following section will examine three methods, a corpus-based approach (Section 2.5.2.1), a semantic-based approach (Section 2.5.2.2), and a mixed-method approach (Section 2.5.2.3), which are used in previous literature to identify technical vocabulary.

2.5.3.1 Corpus-based approach

A corpus is a collection of written or spoken language texts, usually in electronic form and selected according to their representativeness of the language of a particular field (Sinclair, 2004). With advances in technology, corpus based-studies have become large-scale investigations that can examine large amounts of written text or hours of spoken discourse (Coxhead, 2018). The corpus-based approach has been used to identify technical vocabulary in a range of ESP disciplines, including academia (Coxhead, 2000; Valipouri & Nassaji, 2013) and in the trades, such as Plumbing (Coxhead & Demecheleer, 2018), Carpentry (Coxhead et al., 2016), and Fabrication (Coxhead et al., 2018).

One corpus-based quantitative approach that is highly efficient in identifying technical vocabulary is corpus comparison (Chung, 2003). This method uses statistical measures to compare the frequency of words in a specialised corpus to that of a general-purpose corpus, such as Nation's (2012) BNC/COCA word lists. The frequency of words is used as a criterion to identify technical vocabulary because they occur more in specialised domains than in general language use (Chung, 2003). Through conducting a corpus-comparison approach, words that are solely found in the specialised corpus are identified as 'fully technical' (Chung, 2003). For example, Coxhead et al., (2016) compared a specialised carpentry corpus

with a general-purpose corpus and found words such as *insulation* and *cladding* only occurred in the carpentry corpus.

Another approach using a corpus to identify technical vocabulary uses frequency criteria. That is, items that occur far more frequently in the specialised corpus can be identified as technical. For example, Chung (2003) used a ratio of 50 occurrences in an anatomy corpus to one occurrence in a general-purpose corpus to identify technical vocabulary. Table 2.2 shows a number of technical corpus-based studies that used varying frequency thresholds to identify technical vocabulary in their specialised corpora according to factors such as the size of the specialised corpus (Coxhead, 2000; Lu & Durrant, 2017; Valipouri & Nassaji, 2013) and the amount of technical words (Coxhead et al., 2016; Coxhead et al., 2018; Coxhead and Demecheleer, 2018).

Table 2.2: Summary of frequency thresholds in corpus-based studies

Study	Discourse	Frequency threshold (in specialised corpus)
Coxhead (2000)	General academic	100 times
Valipouri & Nassaji (2013)	Chemistry research articles	100 times
Coxhead, et al. (2016)	Carpentry	10 times
Lu & Durrant (2017)	Chinese medicine research articles	30 times
Coxhead, McLaughlin & Reid (2018)	Fabrication	10 times
Coxhead & Demecheleer (2018)	Plumbing	10 times

Chung and Nation (2003, 2004) found the corpus comparison approach to be the most practical and effective method for identifying technical vocabulary in specialised texts, compared to using a technical dictionary, a semantic rating scale, and typographical clues.

Therefore, this thesis utilises the corpus-based approach to identify technical vocabulary in rugby. While quantitative methods are effective at identifying possible technical words, computer software is unable to categorise words according to its meaning. Therefore, a number of studies have also used qualitative methods, such as the semantic-based approach discussed below, during this process.

2.5.3.2 Semantic-based approach

Chung and Nation (2003) developed a four-step rating scale which uses the meaning of a word to measure how closely related it is to a particular field. As Table 2.3 shows words rated as Step 1 or Step 2 in Chung and Nation's (2003) semantic rating scale are either not related or minimally related to the specific field and are classified as not technical. Words rated at Step 3 or Step 4 are closely or exclusively related to the specific field and are therefore classified as technical.

Table 2.3: Chung and Nation's (2003, p. 105) semantic rating scale

<p>Step 1</p> <p>Words such as function words that have a meaning that has no particular relationship with the field of anatomy. Examples are: <i>the, is, between, it, by, 12, adjacent, amounts, common, commonly, directly, constantly, early, and especially.</i></p>
<p>Step 2</p> <p>Words that have a meaning that is minimally related to the field of anatomy in that they describe the positions, movements or features of the body. Examples are: <i>superior, part, forms, pairs, structures, surrounds, supports, associated, lodges, protects.</i></p>
<p>Step 3</p> <p>Words that have a meaning that is closely related to the field of Anatomy but are also used in general language, or may occur with the same meaning in other fields and not be technical terms in those fields. Examples are: <i>chest, trunk, neck, abdomen, ribs, breast, cage, cavity, shoulder, girdle, skin, muscles, wall, heart, lungs, organs, liver, bony, abdominal, breathing.</i></p>

Step 4

Word that have a meaning specific to the field of Anatomy and are not likely to be known in general language. They refer to structures and functions of the body. These words have clear restrictions of usage depending on the subject field. Examples are: *thorax, sternum, costal, vertebrae, pectoral, fascia, trachea, mammary, periosteum, hematopoietic, pectoralis, viscera, intervertebral, demifacets, pedicle*.

Chung and Nation's (2003) semantic scale has since been applied or adapted in a variety of ESP studies, such as applied linguistics (Fraser, 2005), engineering (Hsu, 2014), medical textbooks (Quero, 2015), and in ESP studies, such as Plumbing (Coxhead & Demecheleer, 2018), Carpentry (Coxhead et al., 2016), and Fabrication (Coxhead et al., 2018). Chung and Nation's (2003, 2004) comprehensive investigation concluded that using a semantic rating scale is the most valid method to identify technical vocabulary in specialised texts.

Chung and Nation (2003, 2004) do however caution users that the process can be very time-consuming if every word in the specialised corpus is checked. For example, in Quero's medical English (2015) study, the semantic rating scale was used to identify 32,194 technical words in a medical corpus, with the process taking over three months. In addition, Chung and Nation (2003, 2004) note two issues that need to be considered prior to using the semantic rating scale. First, specialised knowledge of the field is required so that words can be correctly classified. If a researcher does not know that specialised area well, a subject expert will be required. For example, as Coxhead and Demecheleer (2018) were not trained in plumbing, they acquired the assistance of plumbing tutors from a polytechnic to use a semantic rating scale to identify technical vocabulary. Second, to increase inter-rater reliability, multiple raters should be used to check the results. This process would require spending a significant amount of time training raters to use the scale and comparing their answers to ensure reliable results. In order to streamline this time-consuming process, studies have combined a quantitative and qualitative approach to identify technical words.

2.5.3.3 Mixed-method approach

With a corpus-based approach mainly identifying fully technical words and a semantic-based approach being able to identify general high frequency words that have a technical meaning, recent studies investigating technical vocabulary in specialised areas have combined these approaches. Quero's (2015) study on written medical textbooks, used both a corpus comparison approach and Chung and Nation's (2004) semantic rating scale to identify technical vocabulary. First, the corpus comparison method was conducted on a specialised medical textbook corpus to identify possible technical words. Then, using an adapted semantic rating scale by Chung and Nation (2003), these potential technical words were classified as either technical or general. Quero's (2015) study demonstrated how a combination of both the corpus comparison and semantic rating scale approach is an effective method to identify technical vocabulary in a specialised field.

Coxhead et al. (2016) used a corpus-comparison and semantic rating scale to identify and subsequently create a pedagogical word list for Carpentry. First, a 300,500 token written carpentry corpus and a 108,000 spoken corpus were analysed using Nation's (2012) BNC/COCA 25,000 word lists following a frequency threshold of ten occurrences for words that occurred in the BNC/COCA lists and a threshold of four occurrences for words which were only found in the carpentry corpus (not in the BNC/COCA lists) was applied to identify potential technical words. Following that, a three-step semantic rating scale was used by three raters to classify words as either a plumbing word (e.g. *flammable, apron*), a word minimally related to plumbing (e.g. *hazardous, measure*), or a general word (e.g. *improve, category*) (p. 90). Coxhead et al's. (2016) study revealed that using a combination of a corpus comparison and semantic rating scale can be successful with small and spoken corpora due to the process being less time-consuming and multiple raters can be used to semantically rate the words.

In brief, a combination of a corpus-based and semantic-based approach is an effective method to identify technical vocabulary. The following section continues examining literature on technical vocabulary, focusing on technical Multiword Units (MWUs) in ESP.

2.6 What are Multiword Units (MWUs)?

Multiword Units (MWUs) are used in lexical research to describe multiword items that contain all types and lengths of phrases (e.g. two-word collocations or lexical bundles of three or more words). Nation, Shin and Grant (2016, p. 71) define MWUs as “phrases that are made up of words that frequently occur together”. They note that MWU is an umbrella term that incorporates various phrase types, including collocations (Siyanova & Schmitt, 2008), idioms (Siyanova-Chanturia & Martinez, 2014; Wray & Perkins, 2000), lexical bundles (Byrd & Coxhead, 2010; Lu, 2018; Wood & Appel, 2014), formulas (Simpson-Vlach & Ellis, 2010), word clusters (Carter & McCarthy, 2006), and formulaic sequences (Wood, 2002; Wray, 2002), which are used in other studies.

Recent studies by Wood and Appel (2014) and Byrd and Coxhead (2010) have indicated that shorter MWUs are often incorporated into longer MWUs. For example, *as long as* and *long as the* can be incorporated into the MWU *as long as the* (Wood & Appel, 2014, p. 5).

However, the process of identifying shorter MWUs should be conducted after the initial identification phase (see Section 2.6.2) and therefore, the present thesis uses the term MWU because it encompasses items that are two to five words in length.

2.6.1 Why investigate Multi-Word Units (MWUs) in ESP?

There is much research showing how MWUs are crucial to language use and learning (Ackermann & Chen, 2013; Biber, 2009; Hyland, 2008a), and that they occur throughout language in all contexts (Ward, 2007). Particularly in spoken discourse, MWUs are a major component of both degree and scope of usage (Biber, Conrad, & Cortes, 2004; Conklin & Schmitt, 2008; Kuiper, 2004; McCarthy & Carter, 2002). Studies have indicated that general speech is highly formulaic (Erman & Warren, 2000; Foster, 2001; Nattinger & DeCarrico, 1992), up to 58.6% of general spoken discourse, according to Erman & Warren (2000). Because MWUs are ubiquitous in spoken discourse, knowledge and use of formulaic language aids fluency (Kuiper, 1996; Pawley & Syder, 1983; Skehan, 1998; Thomson, Boers, & Coxhead, 2017; Wood, 2010). By increasing fluency through using formulaic language, learners can come across as proficient speakers (Boers, Eyckmans, Kappel, Stengers, & Demecheleer, 2006; Wood, 2007). As with specialised vocabulary, MWUs are also genre-specific to particular communities (Moon, 1997, 1998; Schmitt, 2010). For example,

technical MWUs can create meaning and structure to discourse in EAP (Wood & Appel, 2014). Knowledge of technical MWUs is also closely related to the specialised field (Coxhead, 2018) and therefore, becoming proficient in the specific MWUs is of utmost importance for communication (Wray, 2002).

Notwithstanding the importance of MWUs in both general and specialised domains, research on formulaic language is limited. The majority of studies on MWUs have focused on written texts in EAP (Ackermann & Chen, 2013; Byrd & Coxhead, 2010; Hyland, 2008a; Liu, 2012; Wood & Appel, 2014). To date, there are very few studies investigating MWUs in specialised fields (Coxhead, 2019; Gilmore & Millar, 2018; Gledhill, 2000; Ward, 2007) and none examining MWUs in specialised spoken discourse.

2.6.2 How to identify MWUs in specialised domains?

The most widely used method of identifying MWUs is through a corpus analysis. Using computer software, such as WordSmith (Scott, 2017) or AntConc (Anthony, 2014), a corpus can be analysed to identify MWUs with a high frequency of occurrence (Ackermann & Chen, 2013; Biber, 2009; Hyland, 2008a). A frequency-based approach is often the most important criterion for identifying MWUs in a corpus, similar to identifying single words. A cut-off threshold can depend on the size of the corpus and often repeated analyses are conducted to discover the optimum frequency threshold that is representative of the corpus (Altenberg, 1998; Chen & Baker, 2010; De Cock, 1998). For example, Byrd and Coxhead (2010) used the 3.5 million word corpus from the Academic Word List study by (Coxhead, 2000) to extract four-word academic lexical bundles. Using a cut-off threshold of 20 times per million words, they identified 35 bundles that occurred frequently in Law, Commerce, Science and Arts.

Once MWUs are identified through a frequency-based approach, many lexical studies then investigate the function of the MWU in the corpora for categorisation (Biber, 2009; Biber et al., 2004; Byrd & Coxhead, 2010; Hyland, 2008a; Simpson-Vlach & Ellis, 2010). Biber et al. (2004) identified three discourse functions: stance expressions (*I don't know what, I don't want to*), discourse organisers (*what I want to do is, you know what I mean*), and referential expressions (*the nature of the, at the end of the*). Although these functions assist in

categorising the MWUs, Hyland (2008a) notes that researchers need to develop and adapt functions according to the investigated discourse. This, in turn, will aid teachers when incorporating the identified MWUs into the language classroom. Therefore, adapted discourse functions are used in the present study as a methodological basis to categorise technical rugby MWUs.

2.6.3 MWUs in sport and rugby

The importance and prevalence of MWUs in sports has been discussed in sports literature (Levin, 2008; Wilton, 2015). As with single word units, the majority of lexical studies that have investigated MWUs in sport have focused on football and its sub-domains, such as play-by-play spoken commentary (Chapanga, 2004; Ferguson, 1983; Levin, 2008), written commentary (Bergh, 2011; Ghadessy, 1988), match reporting (Matulina & Coralic, 2008) and interviews (Wilton, 2015). As noted by Levin (2008), these studies are predominantly qualitative in nature. Furthermore, the majority of these studies examine how general MWUs are used within the domain.

Only two studies have used a corpus and frequency-based approach to investigate technical MWUs in football (Levin, 2008; Wilton, 2015). Wilton (2015) created a 13,045 word corpus of post-match interviews and used a frequency-based approach to identify MWUs, without a cut-off threshold. This means that even items that occurred once in the corpus (e.g. *away victory*) were noted. Wilton (2015) consulted *Kicktionary* (Schmidt, 2008), a technical dictionary, to identify technical MWUs, but made no distinction between general and technical MWUs. The Wilton (2015) study concluded that general MWUs are more frequent than highly technical, although the actual frequency of the identified MWUs was not provided.

Levin (2008) analyzed the phraseology of MWUs in written match reports, that contained one of three technical words in football (*net*, *minute(s)*, and *whistle*), such as *in the net*, *10 minutes remain*, and *blew his whistle*. To identify these MWUs, the British National Corpus (BNC) corpus (Aston & Burnard, 1998) was used with a minimum frequency cut-off threshold of three occurrences. Once identified, the phraseology of the MWUs was analysed, with the results indicating that football language is comprised of semi-fixed

chunks of language (p. 153). While Levin's (2008) study only investigated three technical football MWUs, these results provide some much-needed insight into the formulaic nature of sports commentary.

In the case of rugby, the notion that MWUs are prevalent in the sport and its sub-domains has also been discussed in the literature (File, 2013; Wilson, 2009a, 2009b, 2011). Several studies investigating MWUs in rugby have looked at TV commentary (Kuiper, 1996; Kuiper & Lewis, 2013), noting that as the sport is fast paced and features continuous action, commentators are under time pressure to report on what is occurring in the game and, in turn, utilise more formulaic language (Desmarais & Bruce, 2010; Kuiper, 1996). Two areas of rugby commentary noted to contain a high occurrence of formulaic sequences in their explanation are set pieces, such as *a line-out* or *scrum* (Kuiper & Haggo, 1985; Kuiper & Lewis, 2013) and phases of play, which occur between set pieces (Desmarais & Bruce, 2010).

Kuiper and Lewis (2013) further highlight the occurrence of technical rugby formulaic sequences in the *line-out*. A *line-out* is a set piece that re-starts the play when the ball was kicked or taken out of touch. Forwards from each team line up opposite each other while the number two player from one team throws the ball down the middle of the two lines. Transcriptions from all *line-outs* in five games were collected to create a corpus. The study illustrates that technical formulaic sequences, such as *hooker to throw* (Kuiper & Lewis, 2013, p. 46), occurs within the set piece. Kuiper and Lewis' (2013) study is important to the area of MWUs in rugby, highlighting, as it does, frequent MWUs within the sub-domain of rugby TV commentary. However, crucial information, such as how the MWUs were extracted from the corpus and how they were identified as technical, are not evident in the study.

Wilson's (2011) study on leadership discourse in a New Zealand rugby team does provide some insight into MWUs in the sub-domain of team-based speech. In his investigation, three types of MWUs used by leaders in a team are described, along with their function of either indicating a power difference between the leader and player (e.g. *I want you*, as in, *I want you to pass the ball*), an intention to beat the opposition team (e.g. *we dominate their tight five*), or creating solidarity within the team (e.g. *brothers on three*) (p. 182-184). As

MWUs were not the main aim of the investigation, only limited information is presented. However, Wilson (2011) does acknowledge more MWUs are present within the team speech but were not examined.

To sum up, the research on MWUs, particularly in spoken discourse, tells us that knowledge and use of MWUs is critical to fluency and the success in joining a particular community. However, there is a lack of studies examining technical MWUs in specialised fields. The majority of lexical studies in sports have investigated play-by play commentary, showing that because of the fast-paced speech, MWUs are critical to understanding commentary. This could also be true within team speech, but no study has yet investigated MWUs within rugby and their frequency. Such analysis could aid in identifying highly frequent technical MWUs, which can then assist in developing a pedagogical MWU list for use in the field of rugby. The next section examines the ever-increasing number of studies that have created specialised technical single word lists for use in an ESP classroom.

2.7 Discipline-specific pedagogical word lists in ESP

For teachers in ESP, a pedagogically orientated technical word list that contains the most frequent words in a specialised area would assist in setting learning goals and meeting the needs of the learners (Nation, 2016). Focusing on high frequency vocabulary provides the best return for learning (Nation, 2013). Furthermore, frequency-based word lists provide learners in ESP the most communicative success, with the least amount of words needed (Durrant, 2013). This is simply because, within any context, some words are used in every sentence while other words are seldom used (Nation, Coxhead, et al., 2016). Furthermore, a frequency-based word list created from a specialised corpus can provide crucial information on how technical words are used in that specialised field (Biber, Conrad, & Reppen, 1994).

When developing a word list for ESP, two fundamental issues need to be considered: Whether to build the word list from a common core of vocabulary or choose words which are specialised (Basturkmen, 2006; Coxhead, 2013, 2018) and what unit will be used to count the words. The following sections will examine, in turn, the literature on these issues, with an aim to inform the development of technical word lists of rugby vocabulary, as part of this thesis.

2.7.1 Deciding the units of counting in word list studies

The unit of counting a word is an important issue in corpus-based studies. The three units of counting that are commonly used in such studies are word families, lemmas, or word types. To decide which of the three units of counting to use varies according to who will use the list (Gardner, 2007; Nation, 2016; Schmitt, 2010). The broadest unit of counting is the word family, which consists of the inflectional and derivational forms of a word (Nation, 2013). They are an important unit of counting for the vocabulary load for learners (Nagy, Anderson, Schommer, Scott, & Stallman, 1989) because once the base form of a word is known, the meanings of its inflectional and derivational forms can be deduced (Hsu, 2013). For example, the headword *able* has seven different forms (*abilities, ability, abler, ablest, ably, inability, unable*), which are all counted as one word family. To determine what derivational forms of a word are included in a word family, Nation (2012) used Levels 3 to 6 of Bauer and Nation's (1993) scale of inflectional and derivational affixes (see Table 2.4) to create the 25,000 BNC/COCA word list.

Table 2.4: Bauer and Nation's (1993, p. 257-262) levels of affixation for word families

Level	Affixes	Example
Level 1	Every form is a different word.	<i>imagine</i>
Level 2	Regular inflections (<i>plural, third person singular, present tense, past tense, past participle, -ing, comparative, superlative, and possessive</i>)	<i>imagining, imagined, imagines</i>
Level 3	Most frequent regular derivational affixes (<i>-able, -er, -ish, -less, -ly, -ness, -th, -y, -non, and -un</i> with restricted uses)	<i>imaginable, imaginably</i>
Level 4	Frequent and orthographically regular affixes (<i>-al, -ation, -ess, -ism, -ist, -ity, -ment, -ous, and in-</i> with restricted uses)	<i>imagination, imaginations</i>
Level 5	Regular but infrequent affixes (<i>-age, -al, -an, -ance, -ant, -ary, -atory, -dom, -eer, -en, -ence, -ent, -ery, -ese, -esque, -ette, -hood, -i, -ian, -ite, -let, -ling, -ly, -most, -ory, -ship, -ward, -ways, -wise, -ante, anti-, arch-, bi-, circum-, -counter, -</i>	<i>imaginary</i>

	<i>en, -ex, fore-, hyper-, inter-, mid-, mis-, neo-, post-, pro-, semi-, sub-, un-)</i>	
Level 6	Frequent but irregular affixes (<i>-able, -ee, -ic, -ify, -ion, -ist, -ition, -ive, -th, -y, -pre, re-</i>)	<i>imaginative, imaginatively</i>
Level 7	Classic roots and affixes (e.g., <i>ab-, ad-, com-, de-, dis-, ex-, sub-</i>)	Not applicable

When defining a word family at a specific level, it also includes the stem word (level 1) together with its inflections (level 2) and then all derivations up to that level. Using word family as the unit of counting when creating a pedagogically orientated word list can be problematic if the learner lacks the morphological knowledge to understand the affiliation between the base form of a words and its inflections and derivations (Kremmel, 2016; Schmitt & Zimmerman, 2002). Furthermore, using word family as the unit of counting for specialised word lists may not be suitable as not all of the word family members (levels 2-7) have a technical meaning (Coxhead et al., 2018). For example, in Coxhead and Demecheleer's (2018) Plumbing word list, *active* was categorised as technical, whereas its family member *action* was not. Nonetheless, using word family as a unit of counting has been used in a variety of word list studies, including general English (Nation, 2012; West, 1953), academic (Coxhead, 2000; Valipouri & Nassaji, 2013; Xue & Nation, 1984) and specialised word lists (Fraser, 2009; Hsu, 2013; Yang, 2015) to investigate the vocabulary load of the corpora and the coverage of the word lists which had been created.

Another way of counting words is to focus on the lemma, which "distinguishes part of speech and includes the stem of the word and its inflectional suffixes" (Nation, 2016). This unit of counting has been used to create word lists such as a general word list by Brezina and Gablasova (2015). The lemma is arguably more suitable for pedagogical words lists because lemmas distinguish words according to their grammatical functions (Gardner & Davies, 2014). For example, *cross* (verb) and its inflectional forms (*crosses, crossing, crossed*) are under one lemma, whereas *cross* (noun) is a different lemma.

For word lists specifically created for beginners, recent studies are using flemma (McLean, 2017; Pinchbeck, 2014), which is an extended version of a lemma, as a unit of counting

(Browne, 2014; Dang & Webb, 2016). Flemma is appropriate for beginners, as a lack of morphological knowledge does not affect their ability to learn the words. However, as with word family, using lemma and flemma as a unit of counting words to create technical word lists is not suitable, because not all members of the lemma or flemma are technical (Chung & Nation, 2004; Nation, 2016).

Word type is the final unit of counting words used to create technical word lists (Chung and Nation, 2003, 2004), used to create word lists in trade (Coxhead & Demecheleer, 2018; Coxhead et al., 2016; Coxhead et al., 2018), medicine (Quero, 2015), and engineering (Watson-Todd, 2017). Word types distinguish between words in word families that have either general or technical meaning. For example, the word type *season* is technical in rugby, but in the same family, *seasoning* is general. Although using word types can make the word list longer than if counting using word family or lemma, as technical words are created from a specialised set of texts, the list will be most suitable for ESP learners (Koester, 2010). Therefore, word types will be used in this present thesis when creating a specialised pedagogical rugby word list.

2.7.2 Common core or specialised vocabulary word lists?

The second fundamental issue that needs to be considered when creating an ESP word list is how the list will best serve the needs of the learners. The creation of the word list will use one of two approaches; either a common core approach or a specialised approach (Basturkmen, 2006; Coxhead, 2013). See Table 2.5 for a summary of discipline specific word list studies, showing the unit of counting and approach used to create a range of discipline specific word lists. Simply put, a common core word list builds upon an existing word list as the users' prior knowledge is taken into account. For example, Coxhead's Academic Word List (AWL) (2000) was built upon West's (1953) General Service List of English Words (GSL) because it was decided users of the AWL would already have prior knowledge of the vocabulary in the GSL and therefore, none of the GSL words were included. A common core approach adopts the view that there is a core of academic vocabulary across different disciplines, thereby allowing English for Academic Purposes teachers and learners to focus on lexis which is needed by all learners in a class, rather than the technical vocabulary associated with one discipline (Coxhead, 2018).

There are three main drawbacks to creating a common core academic word list. First, if learners do not have prior knowledge of the GSL or the existing word list, they will struggle within the classroom. This issue has arisen in a number of ESP and EAP lexical studies (Evans & Green, 2007; Kennedy, 2001; Nguyen & Webb, 2016; Nurweni & Read, 1999; Ward, 2009; Webb & Chang, 2012). Second, recent studies, such as Chung and Nation (2003, 2004) claim technical vocabulary can make up more than 30% of the total text when words are not separated into levels of high, medium, or low frequency (Nation, Coxhead, et al., 2016) (see above) and therefore, the word list may not include technical or academic high frequency words. Finally, the common core word list is severely affected by the principles used to create the general word list (Dang et al., 2017). For example, if a specific word list such as the AWL is built upon the GSL, the principles used to create the GSL will affect what words are selected for the new word list (Coxhead, 2000).

If an ESP course focuses on one discipline (Basturkmen, 2010), a specialised approach should be followed to create a word list (Coxhead, 2018; Gardner & Davies, 2014). This approach does not draw on existing word lists and only focuses on the lexical needs of a particular group of learner (Coxhead, 2018). Within a specialised word list, lexical items from all different frequency levels are included (Gardner & Davies, 2014). This means that items occurring in the first 1,000 word families from the GSL (West, 1953) or any other high frequency word list (e.g. Nation's (2012) BNC/COCA lists or Brezina & Gabraslova, 2015 general word lists) to items that are scarcely used in general language can be present in a specialised word list. There is a risk, however, that learners may already know high frequency items in a word list (Dang et al., 2017).

Table 2.5: Summary of discipline-specific word lists

Author(s)	Word list	Unit of counting (size of the list)	Common core or Specialised approach	Written or Spoken discourse
Ward (1999)	Engineering Word List	Word families (3,000)	Specialised	Written
Coxhead and Hirsh (2007)	Pilot Science Word List	Word families (318)	Common core	Written
Wang, Liang, & Ge (2008)	Medical Academic Word List	Word families (623)	Common core	Written
Ward (2009)	Basic Engineering Word List	Word types (299)	Specialised	Written
Fraser (2009)	Pharmacology Word List	Word families (2,000)	Specialised	Written
Hsu (2013)	Medical Word List	Word families (595)	Common core	Written
Valipouri & Nassaji (2013)	Chemistry Academic Word List	Word families (1,577)	Specialised	Written
Liu & Han (2015)	Environmental Academic Word List	Word families (458)	Common core	Written
Yang (2015)	Nursing Academic Word List	Word families (676)	Common core	Written
Coxhead et al. (2016)	Carpentry Word List	Word types (1,424)	Specialised	Written and Spoken

Watson-Todd (2017)	Opaque Engineering Word List	Word types (186)	Specialised	Written
Dang, Coxhead, & Webb (2017)	Academic Spoken Word List	Word families (1,741)	Specialised	Spoken
Coxhead and Demecheleer (2018)	Plumbing Word List	Word types (815)	Specialised	Spoken
Coxhead et al. (2018)	Fabrication Word List	Word types (1,079)	Specialised	Written and Spoken
Tongpoon-Patanasorn (2018)	Finance Word List	Word families (569)	Specialised	Written
Dang (2018a)	Hard Science Word List	Word families (1,595)	Specialised	Spoken
Dang (2018b)	Soft Science Word List	Word families (1,964)	Specialised	Spoken

From Table 2.5, three observations can be made. First, the predominate unit of counting is word families, with 11 of the 17 studies using this approach to create discipline-specific word lists. However, upon further analysis, the word lists created with word types are designed for either beginners in the specialised domain (Ward, 2009; Watson-Todd, 2017), or non-university contexts (Coxhead & Demecheleer, 2018; Coxhead et al., 2016; Coxhead et al., 2018). Second, Table 2.5 shows a shift from creating discipline-specific word lists using a common core approach to a specialised approach. Since 2016, all eight studies used the specialised approach to create their respective word lists. Finally, Table 2.5 shows that with only four of the 17 studies creating discipline-specific spoken word lists, there is still a gap in the literature to create such lists. This is the focus of the next section.

2.7.3 In search of discipline-specific spoken word lists

Why might there be a lack of studies which focus on spoken vocabulary and word lists, except for Dang (2018a, 2018b) and Dang et al., (2017)? One reason why is that to create a spoken corpus and subsequently conduct a corpus-based analysis takes considerably more time and funding during the recording, transcribing, and annotation phase than when creating a written corpus (Adolphs & Carter, 2013). The following studies look at spoken word lists.

In the EAP context, Dang has been the most prominent researcher in creating discipline-specific spoken word lists, to date. The three word lists, the Academic Spoken Word List (Dang et al., 2017), the Hard Science Spoken Word List (Dang, 2018a), and the Soft Science Spoken Word List (Dang, 2018b) were all created using the specialised approach (Coxhead, 2018; Gardner & Davies, 2014) and the unit of counting was word families. The word lists were created using spoken corpora from four naturally-occurring academic speech events in the domains (lectures, seminars, labs, and tutorials).

Within the non-university ESP context, the difficulties of recording spoken discourse outside of the classroom may be one reason why there is no exclusive discipline-specific spoken word list, to date. To remedy this issue, Coxhead and her respective colleagues (Coxhead & Demecheleer, 2018; Coxhead et al., 2016; Coxhead et al., 2018), as part of The Language in the Trades Education (LATTE) project (Parkinson et al., 2017), used a combination of spoken and written discourse to create four discipline-specific word lists. The aim of the project was to investigate language use in four trades: Automotive Engineering (Parkinson, et al., 2017), Fabrication (Coxhead et al., 2018), Carpentry (Coxhead et al., 2016), and Plumbing (Coxhead & Demecheleer, 2018). Audio recordings from classroom lectures and building sites were gathered, as well as written materials used in the classroom were used to develop the four technical word lists. For example, to create the pedagogically-orientated fabrication word list, a spoken corpus containing over 26 hours of recordings from tutors, totaling 99,000 running words was collected, as well as a written corpus totaling 185,570 tokens (Coxhead et al., 2018; Parkinson et al., 2017). To identify technical vocabulary in the corpora, a mixed-method approach, using corpus-based and semantic-based approaches was applied. This resulted in a Fabrication Word List of 1,079 word types (Coxhead et al., 2018; Parkinson et

al., 2017). Each of the four-word lists in the LATTE project was created using the specialised approach and used word type as the unit of counting technical words. The results of the LATTE Project and subsequent creation of four technical word lists reveal how previously under-researched specific domains contain technical vocabulary that are crucial to the ESP learners' success in that context. Relating this to rugby, there is also a clear lack of research identifying technical vocabulary in the domain. Thus, it indicates that further investigation on the development of a spoken rugby word list is also needed.

2.8 Summary and gaps in the field

This chapter has provided key concepts related to the needs of learners, technical vocabulary, and pedagogical word lists, all within an ESP context. The chapter first reviewed the role of needs analysis in relation to creating an ESP course. Then, it looked at the lexical demands of spoken rugby and previous literature on analysing vocabulary in EAP. Then, the chapter examined the role of technical vocabulary, both single-unit and MWUs in ESP and rugby. Finally, it discussed the role of pedagogical word lists in ESP. Through the review of literature on these areas, there are five major gaps that have been identified.

The first major gap concerns the needs of non-native speaking players and coaches in the specialised field of rugby. While previous literature has shown the importance of conducting a needs analysis in an ESP setting to ascertain the learners' linguistic needs, little attention has been paid to the specialized field of individual sports. Several sociological studies in both football and rugby have shown language is a main issue when players and coaches integrate into a foreign sports team. These studies provide evidence that it would be beneficial to examine what language difficulties are occurring within a rugby team through conducting a linguistic needs analysis.

The second major gap concerns the lexical demands of ESP contexts, particularly in spoken rugby. A large number of studies have investigated the amount of vocabulary needed to comprehend general and academic spoken discourse (see Table 2.1), with results depending on the discipline. However, the vocabulary load of the ESP context remains an unexplored area. Considering there are differences between general and academic vocabulary, the results may not be applicable to ESP. Furthermore, as there is no such study in sports, let

alone rugby, conducting an analysis would assist in understanding the vocabulary in this specialised discipline.

The third major gap relates to technical rugby vocabulary. The literature affirms the importance of knowing and using the technical vocabulary for a specialised domain. However, while there have been a number of studies noting the importance of technical vocabulary in rugby, none have empirically investigated this area and used well-researched approaches to identify these items systematically.

The fourth gap concerns multiword units. Research on MWUs in spoken discourse has shown that much of general speech is made up of formulaic language, and that knowledge and use of formulaic language helps promote fluency. Compared to investigations on technical MWUs in spoken discourse however, there is a clear gap in the literature. Research on MWUs in rugby has provided some insight on the importance of MWUs in the domain. Again however, no study has empirically investigated the occurrence and frequency of MWUs in the sport.

Finally, the fifth major gap concerns the lack of spoken pedagogical word lists in the ESP setting. The last two decades have seen a large number of discipline specific word lists created for use in the language classroom. However, it is only recently that researchers have focused on technical vocabulary in ESP spoken discourse and created pedagogically-orientated word lists. Notwithstanding, the results of these studies show the importance of investigating and subsequently creating discipline-specific word lists. To assist both ESP teachers and learners, more research is needed in this area.

2.9 Research questions

To address the gaps presented in this chapter, the following research questions pertaining to the two phases will be investigated:

Phase one – part one:

1. What is the lexical profile of rugby vocabulary using Nation's (2012) BNC/COCA word lists?

2. What is the coverage of Schmitt and Schmitt's (2014) high, medium, and low frequency vocabulary in the rugby corpus?
3. What is the vocabulary load of TV commentary and interactional rugby spoken discourse?
4. To what extent does spoken rugby vocabulary differ from written rugby vocabulary?
5. To what extent does rugby vocabulary differ from general spoken English?

Phase one - part two:

1. Which word types in Nation's (2012) BNC/COCA base word lists are technical words in the field of spoken and written rugby discourse?
 - 1a. How many of these types are from Schmitt and Schmitt's (2014) high, medium, and low frequency vocabulary bands?
2. What is the overall coverage of technical rugby vocabulary in the spoken and written rugby corpora?
3. What are the semantic features of the technical spoken and written word list?
4. What is the coverage of the technical spoken and written rugby word lists in the TV commentary, interactional, and written corpora?
5. What is the coverage of the technical spoken rugby word list in general spoken English?
6. What are the most frequent technical MWUs in the field of spoken and written rugby discourse?

Phase two:

1. What are the linguistic needs of foreign speakers in rugby in New Zealand and Japan?
2. To what extent do the linguistic needs differ from foreign speakers in rugby in Japan and New Zealand?
3. To what extent does the receptive knowledge of technical rugby vocabulary differ between first language (L1) and second language (L2) rugby speakers?
4. To what extent does the productive knowledge of technical rugby vocabulary differ between L1 and L2 rugby speakers?

Chapter 3 Methodology

In this chapter, the methodology employed in two phases to investigate the communicative and lexical demands of rugby will be discussed in three sections. The first section (Section 3.1) details the creation of spoken and written rugby corpora to conduct a lexical profile and vocabulary load of created. The second section (3.5) presents the methodology of investigating the nature of technical vocabulary in the spoken and written rugby corpora to create technical single-word and MWU lists. The final section (3.8) describes the methods used to investigate the linguistic needs of foreign players and coaches. For each phase, the research questions, research design and methods to collect and analyse the data will be described.

3.1 Introduction

The two-phase research project investigates vocabulary in rugby. The first phase is divided into two parts to investigate this area. The purpose of the first part is to investigate the vocabulary of rugby and ascertain the nature of vocabulary in rugby from television rugby commentary, interactions in the rugby setting, and the official written text on the laws of rugby. To achieve this, the lexical profile and vocabulary load of rugby was analysed through a corpus. First, a description of how each corpus in the rugby corpus was built will be discussed. Specifically, Sections 3.2.1, 3.2.2, and 3.2.3 describe each area of the spoken and written corpora. Then Section 3.3 describes the instrument used for the analysis. Finally, Section 3.4. presents the procedure for the corpus analysis.

3.2 Building the spoken and written rugby corpora

Biber (1993) proposes three principles when designing a representative corpus: 1). Define the population that the corpus intends to represent; 2). Choose a sampling frame to guide the sampling of texts; and 3). Analyse the representativeness of the sampled texts. In the present study, the corpora intends to represent the target population of players and coaches. Rugby relies primarily on spoken discourse between players and coaches, as I have found in my own experience playing and coaching the game for over 20 years. Therefore, the key objective was to build a corpus that represents spoken rugby discourse.

Additionally, to investigate and compare spoken with written rugby discourse, and to acknowledge the coaches' need to read the rules of rugby and impart them to players, it was decided to build a corpus that represents written rugby discourse.

First, as rugby is an interactional sport, effective communication between all members of a team is essential to play and coach. Performing at the highest level is the goal in this context and therefore, the target user group is players and coaches. Secondly, rugby is not only a performance which is carried out, but a sport which is commonly observed, whether attending a game or watching on television. As commentary can enhance the visual and technological experience (Desmarais & Bruce, 2010), it is used to bring meaning to what is occurring on the television screen (Morris & Nydahl, 1985). In sum, the two main areas in spoken rugby discourse are interactional communication within a team and television commentary. Having followed Biber's (1993) first principle and deciding on the target population for the rugby corpus, the following subsections will describe how the rugby corpus was built following Biber's (1993) two other principles.

3.2.1 Creating the television rugby commentary corpus

In order to select games to represent a television rugby commentary corpus (henceforth TV commentary corpus), two principles and one selection criterion were used to identify three target rugby games. The two principles were games played in the Super Rugby season, and experienced television commentators. The selection criterion was the time in the season.

3.2.1.1 Super Rugby season

The first principle is the three games had to be played in the Super Rugby competition, which is a professional rugby competition played between teams in New Zealand, Australia, South Africa, Argentina, and Japan. At the time the corpora was created, the competition had 18 teams. As the study was conducted in the New Zealand context, games commentated by New Zealanders were sought. At the start of the study, the 2017 season was just about to begin. Super Rugby is broadcast in over 40 countries, with the host country providing English commentary. Therefore, New Zealand television rugby commentary is one accessible method for second language learners to hear spoken rugby discourse. These pedagogical implications were a factor when building the corpus.

3.2.1.2 Experienced television commentators

The second principle is the three games had to have the same commentators. Kuiper and Lewis (2013) explain that within sport commentary, there are three distinct speakers: A Play-by-play commentator, a Colour commentator, and a Sideline commentator. The Play-by-play commentator's role is to relay what is occurring in real-time, as in this example from a segment of the TV commentary corpus:

Play-by-play: *Coltman deflected by Ainley, Smith with the kick. Not a bad kick either. Very good kick Coltman and there is going to be a penalty. Oh well. Liam Coltman was offside. That really was a beautifully weighted kick. Never onside was he, Liam Coltman, and he became involved in the play. And the Chiefs have gone quickly here with this, as they spin it wide. Here is Lowe, two tries already. Naholo with a good tackle. Lienert-Brown driven to ground, and the Highlanders attacking. In after it, but they got the last touch and it is play on. Oh Cruden, he got nailed without the ball. Although to be fair to Ainley, he would have thought he had the ball.*

The Colour commentator fills the void between plays, usually providing commentary on replies (Kuiper & Lewis, 2013). Here is an example from the TV Commentary Corpus:

Colour: *I think they might consider a long-range shoot here. Not sure it is within Crudens' capabilities, but it is certainly is McKenzie's.*

Finally, the Sideline commentator provides information to the listener and other commentators, such as when players are replaced or when injuries occur. Here are two examples from the TV Commentary Corpus:

Sideline: *They are going to go set piece. They are going to have a crack. They have not had many opportunities, Justin.*

Sideline: *Not far away from now, the first two tactical substitutions here. Atu Moli for the Chiefs and Elliot Dixon who looks ready to enter the fray, very ready.*

In New Zealand, at the time of this research, the main television Play-by-play and Colour commentators were New Zealanders Grant Nisbett and Justin Marshall. Grant Nisbett has commentated for 34 years and Justin Marshall, a former professional rugby player, has commentated for eight years. Games in which they commentated together were selected for the study. Unfortunately, the same Sideline commentator was not used three times in the 2017 season and therefore, this variable could not be controlled (see Table 3.1). However, as the corpus is small, the sideline commentator's speech was also collected for the commentary corpus.

3.2.1.3 Date in the season

In addition to the two principles, the time in the season when the games were played was a selection criterion when gathering applicable games. As can be seen in Table 3.1, games commentated by Grant Nisbett and Justin Marshall only occurred once a month. Therefore, it took two months to gather the necessary games.

Table 3.1: Overview of television commentary corpus

Game	Date	Location	PC	CC	SC	Tokens
Highlanders vs Chiefs	24 th February, 2017	Dunedin, New Zealand	Grant Nisbett	Justin Marshall	Ian Smith	11,246
Highlanders vs Rebels	31 st March, 2017	Dunedin, New Zealand	Grant Nisbett	Justin Marshall	Karl Tanana	11,035
Chiefs vs Sunwolves	29 th April, 2017	Hamilton, New Zealand	Grant Nisbett	Justin Marshall	Matthew Cooper	13,377
Total						35,658

Note: PC = Play-by-play Commentator CC = Colour commentator SC = Sideline Commentator

3.2.1.4 Transcription process

During the transcription process, a principle of only transcribing commentary during the game was followed. Transcription commenced from the first whistle to begin the game until the half-time whistle and restarted from the second-half whistle until the full-time whistle. Each game was digitally recorded and the software InqScribe was used in the transcription process. The software allows for adding personalised time stamps and shortcuts. With personalised time stamps, it was possible to highlight areas of interest in each game. These areas included: who was speaking (Play-by-play, Colour, or Sideline commentator) and what action was occurring in the game (scrum, lineout, try, or penalty).

The three games, totaling 240 minutes, were orthographically transcribed by the researcher (see Table 3.2). When there were difficult to hear or inaudible words or phrases, two independent raters, with over 10 year's experience playing the sport, were consulted for clarification. As can be seen in Table 3.2, the three transcribed games consisted of 11,035, 11,246, and 13,377 tokens, respectively for a total of 35,658 running words.

Automatic transcription software was trialed with half a game to ascertain if it was a viable means of increasing the size of the corpus. However, the software was only able to successfully transcribe 25% of the commentary. Speed of the commentary, background noise, accent of the commentators, and Pasifika names were all possible causes for errors. Therefore, manual transcription was the best option for creating the corpus. The following section will describe the creation of the interactional corpus.

3.2.2 Overview of interactional rugby corpus

The second corpus used in this study was Dr. Nick Wilson's (2011) corpus of authentic interactions in a rugby setting. Wilson (2011) created the corpus as part of his Ph.D. dissertation to examine the discursive construction of leadership and team identity in a New Zealand rugby team. Wilson's (2011) ethnographic study consisted of recording interactions between members of a premier grade rugby team in Wellington, New Zealand, over a total of 32 hours. All the players, coaches, and managers of the team were recorded over the course of a season. The interactions were recorded in 12 situations: interviews, training, post-match team room, pre-match huddle, half-time huddle, full-time huddle, team

meeting, warmup, front-row warmup, pre-warmup locker room, water message, and full match day. From the 32 hours of recordings, Wilson (2011) transcribed two hours and ten minutes, for a total of 25,637 tokens.

Dr. Nick Wilson was kind enough to allow for the use of the transcription of his corpus in this study, for which I am truly grateful. The corpus was originally created for use in XML and transcription conventions had to be deleted for use in this analysis. This was a time-consuming process that allowed me to become very familiar with the contents of the corpus.

3.2.3 Written rugby corpus

A written rugby corpus containing the official World Rugby Law Book, *The Laws of the Game* was created (*Laws of the Game Rugby Union*, 2017). The book was downloaded from the World Rugby website (<http://laws.worldrugby.org/?language=en>). This written text was chosen for two reasons. Firstly, World Rugby is the governing body for the sport, and their laws are followed by every rugby union around the world and therefore generalizable to general written rugby language. Secondly, it is freely available to anyone so would be representative of a written text that players or coaches would possibly read. The PDF was converted into TEXT files using AntFileConverter (Anthony, 2017). The text was checked manually and charts, diagrams, images, index numbers, and appendices were removed. It is called the 'Written Rugby Corpus' in this study.

Table 3.2 contains the overall number of tokens in each of the three corpora in this study. The total number of running words in the whole rugby corpus is 98,609. The corpus contains roughly two thirds spoken rugby discourse, and one third written discourse.

Table 3.2: Summary of the Rugby Corpus

Corpora	Corpus	Mode	Time (minutes)	Size (tokens)
TV commentary corpus	Spoken	Spoken	240	35,658
Interactional corpus			130	25,637

Law book corpus	Written	Written	NA	37,314
Total		-	370	98,609

3.3 Instruments for analysis

Following the same method of analysis as used in previous studies (Coxhead et al., 2016; Coxhead et al., 2018; Dang & Webb, 2014; Lu, 2018), the *Range* program (Heatley, Nation, & Coxhead, 2002) was used to analyse the rugby corpus. This program allows users to enter written texts and analyse its lexical coverage according to certain base word lists (see below). The program also presents the frequency and coverage of each word according to the base word lists.

Nation's (2012) British National Corpus and Corpus of Contemporary American English (BNC/COCA) base word lists were utilised with the *Range* program to analyse the rugby corpus. The BNC/COCA word lists contain the most frequent 25,000 word families. These word families are divided into 25 word base lists, according to their frequency (BASEWRD 1-25). Additionally, Nation's (2012) supplementary word lists (proper noun, marginal words, transparent compound, and abbreviation) were used in this analysis. The reason for using the *Range* program is the transparency and ease of modification to the base word lists. Each base word list is accessible to the user to adapt accordingly. In addition, the program allows the user to add new base word lists and when creating a specialised word list, this is necessary. Nation's (2012) BNC/COCA base word list was used due to their size, and with the *Range* program, the ability to analyse vocabulary at various frequency levels; in this case 1,000 to 25,000 word families. The unit of counting in the BNC/COCA word lists is word family and therefore, to follow this method and make necessary modifications to the BNC/COCA base words lists as described in Section 3.3.1, the word unit of analysis in this study was word families.

An initial analysis of the rugby corpus using the *Range* program found that 1,527 or 2.49% of the tokens were not in any of the BNC/COCA base word lists, and thus, shown as 'not in the lists'. Examples displayed in this list included: names of players (*Messam, Aaron*), names of teams (*Stormers, Sunwolves*), and words specific to rugby (*openside, loosehead*). Therefore, additional modifications to the data analysis were necessary to ensure these tokens were

allocated accordingly. The following subsections explain the process of formatting and adapting the BNC/COCA base word lists for analysis.

3.3.1 Cleaning the spoken and written rugby corpora

As the majority of the rugby corpus is spoken dialogue, cleaning the corpus (Nation, Coxhead, et al., 2016) was necessary to use the *Range* program (Heatley, Nation & Coxhead, 2002). Contractions (e.g. *'cause*, *didn't*) were changed (e.g., *because*, *did not*) to match the BNC word lists used in the analysis (Nation, 2016). In addition, although unfinished words, such as *wa-* (from *way*) and *ver-* (from *very*), may assist the listener's comprehension in spoken contexts (Harris, 2003), they were excluded from the analysis.

3.3.1.1 Adapting the BNC/COCA base word lists

In addition to cleaning the rugby corpus, adapting the existing BNC/COCA words lists was necessary. As Nation, Coxhead, Chung, and Quero (2016) explain, modernisation of the BNC/COCA word lists is an ongoing process and they need to be continually updated. As rugby is a specialised field, there were proper nouns, abbreviations, low frequency family members, marginal words, and 'not in the lists' words in the corpus and modification was required.

Low frequency words that should have been a member of the word families in BASEWRD 1-25 were also in the 'not in the list'. If these word types satisfied the criterion of Bauer and Nation's (1993) word family scale, they were subsequently added to their word families in the existing lists. For example, *kickable* was added to BASEWRD 1 as the meaning was related to the word family *kick* and the affix was in Bauer and Nation's (1993) scale. In total, 21 types were added to their corresponding word families in BASEWRD 1-25.

3.3.1.2 Adapting the supplementary proper noun list

Proper nouns were prevalent throughout the rugby corpus, especially in the television commentary corpora. Kennedy (2003) defines proper nouns as nouns with a capital letter and are typically "names of people, places, countries, days, months, institutions (e.g. the British Museum), commercial products (e.g. a Cadillac), and holidays" (Kennedy, 2003, p.

147). Through analysing the corpus for proper nouns, three principles were followed:

1. If a proper noun was 'not in the lists', it was added to BASEWRD 31. Examples include names (*Hennie, Rangi*), places (*Tokyo, Silverstream*), and names of teams (*Sunwolves, Jayville*).
2. If the meaning of the noun only occurred in the corpus as a proper noun, it was deleted from its base list and subsequently added to BASEWRD 31: E.g. *Crusaders, Zoo, Panthers*.
3. If the meaning of the noun occurred as both a proper and common noun, it was not added: E.g. *Weeks, Brown, Force*. In total, 198 proper nouns were added to BASEWRD 31.

3.3.1.3 Adapting the supplementary abbreviation list

Abbreviations, or words created from a multiword sequence where the initial letter of each word in the sequence (Plag, 2003), were not prevalent in the corpus (as Coxhead, 2018 notes from the analysis of spoken corpora in the LATTE project). In total, only four were added to the abbreviation list (BASEWRD 34). These abbreviations were: OBU (*Old Boys University*), MSP (*Marist St Pats*), TMO (*Television Match Official*), NRL (*National Rugby League*).

3.3.1.4 'Not in lists' word types

Once the rugby corpus was formatted, a number of words remained in the 'not in the list'. As they do not occur in other base lists, these words are specialised in the rugby domain. To make these comparable to other base word lists (BASEWRD 1-34), they were formatted in the same style and a new word list (BASEWRD 35) was created and named the rugby base word list.

3.4 Data analysis

In the previous subsections, the process of creating the rugby corpus was described. Now, this section will detail how the corpus was analysed for its lexical profile and vocabulary load. Firstly, the instrument used to analyse the corpus will be described, followed by the formatting of the corpus and adapting the reference base word lists.

3.4.1 Procedure

To answer research question 2, previous study methods (Lu & Coxhead, 2019) were followed to investigate the coverage of high, medium and low frequency vocabulary in the rugby corpus. Schmitt and Schmitt (2014) define high frequency as the first three 1,000 word families from Nation's (2012) word lists (BASEWRD 1-3), medium as 4,000 to 8,000 (BASEWRD 4-8), and low as above 9,000 (BASEWRD 9-25). The coverage of each high, medium, and low frequency band was added together to understand the coverage. For example, to investigate the high frequency vocabulary, the coverage in BASEWRD 1, 2, and 3 were combined. By ascertaining what vocabulary is high, medium, or low frequency in rugby discourse allows for specialised materials to be created at a suitable level of proficiency for learners.

To investigate the lexical coverage of each corpus in the rugby corpus, the coverage in each BASEWRD list was added until it reached 95% and 98%, respectively. For example, the television commentary corpora vocabulary load was calculated by adding its coverage of each BNC/COCA word list until the coverage reached 95% and 98%. This method was then repeated for the interactional and written rugby corpus. The 95% and 98% lexical coverage threshold was set because previous studies suggest these percentages are the adequate and optimal coverage for comprehension in both written and spoken discourse. Van Zeeland and Schmitt (2013), also show that 95% comprehension of spoken language is adequate and that if full comprehension is required, 98% would be optimal.

3.5 Identifying technical vocabulary in spoken rugby discourse

The following sections describe the methods used in part two of phase one to investigate the nature of technical rugby vocabulary, by identifying single and multiword technical vocabulary within the rugby corpus. This section begins with a description of the quantitative and qualitative approaches used to analyse technical single words in the corpora. Following that, the procedure used to identify these words in the 25,000 BNC/COCA base words lists and the development and the use of a semantic rating scale to create technical rugby single word lists will be discussed. Finally, the approaches and procedures used to identify and develop technical multiword unit lists will be presented.

3.5.1 Identifying rugby technical words in the Nation's (2012) BNC/COCA base word lists

During the construction of the rugby corpus, the rugby base word list was created (see Section 3.3.1.4). The words in this base word list did not appear in any of Nation's (2012) 25 BNC/COCA base words lists. However, in addition to these technical words, a large number of technical rugby words are within the 25 BNC/COCA base word lists. The *Range* program (Heatley, et al., 2002) is unable to identify these words as technical and therefore, a mixed method approach was utilised to identify and subsequently create technical spoken and written rugby word lists. The following sections will discuss the method of identifying technical rugby words, including deciding the unit of counting and the frequency selection principles, adapting a semantic rating scale, and the analysis of technical rugby words using the scale.

3.5.1.1 Unit of counting

In this analysis, the unit of counting for the identification of technical vocabulary is word types, as they have been shown to be the most suitable unit for counting technical vocabulary (Chung & Nation, 2004; Coxhead et al., 2016; Coxhead et al., 2018; Nation, 2013; Nation, Coxhead, et al., 2016). One reason word types are used is because not every word in the family may be technical, as mentioned in Chapter 2. Coxhead et al's. (2016) study found the word types *flashing* and *flashings* in the technical Carpentry Word List, whereas *flash* is not (p. 49). Another reason for word types as the unit of counting is knowledge of one form may not imply knowledge of its other family members (Martinez & Murphy, 2011; Ward, 2009). Martinez and Murphy (2011) provide an example of how words in the base word family of *puzzle* are semantically different. They suggest that learners of English would struggle to derive the meaning *puzzling* (meaning confusing) from *puzzle*, due to their semantic difference. For these two reasons, the unit of counting technical vocabulary in the rugby corpus was used to identify word types.

3.5.1.2 Deciding frequency principles

To identify technical words in the BNC/COCA base word lists and rugby word base list, two frequency principles were applied to the results of the *Range* program (Heatley et al. 2002). In previous studies, frequency principles were decided according to the size of the corpus. For example, the frequency principles of 10 and four were applied to three ESP studies

investigating technical vocabulary in the trades (Coxhead, et al. 2016), carpentry (Coxhead, McLaughlin & Reid, 2018) and fabrication (Coxhead & Demecheleer, 2018). In each of these studies, words that occurred more than 10 times in the corpus from the BNC/COCA base word lists and more than four times in the created specialised word list were selected. In each of the four studies, the corpora were considerably larger than the rugby corpus, with sizes ranging from 185,570 tokens (Coxhead et al., 2018) to 559,000 tokens (Coxhead & Demecheleer, 2018). A preliminary analysis of multiple cut-off points from 10 to four were initially applied to identify possible technical words in both the spoken and written rugby corpus. Through this provisional analysis, the final frequency principles applied to the analysis were:

1. Words occurring more than seven times in the rugby corpus from Nation's (2012) BNC/COCA base and supplementary word lists.
2. Words occurring more than four times in the BNC/COCA rugby word list.

The frequency cut-off point of seven and four occurrences allowed for the maximum number of potential technical words to be identified but also negated non-technical words (such as function words) which would subsequently slow down the semantic rating process.

3.6 Developing the semantic rating scale

Although a frequency analysis can identify possible technical rugby words, this procedure alone cannot truly ascertain if they are technical in nature. Therefore, a qualitative analysis was conducted to distinguish whether a word is technical, and to what degree it is specialized in the rugby context. A semantic rating scale, created by Chung and Nation (2003) and adapted by Quero (2015) for her identification of technical words in medical textbooks, was further adapted for this analysis. Quero (2015) used a two-step identification process, first deciding if a word is general purpose or technical, then using a four-scale semantic rating scale, decided the degree of technicality of the word (see Table 3.3).

Table 3.3: Quero's (2015, p. 90) four-levelled semantic rating scale

<p>Sub-level 2.1</p> <p>Some topic-related words are also general purpose words used in the medical field with the same meaning they most frequently have in other general fields and everyday usage. E.g. <i>nurse, doctor, child, medicine, blood, pain, health</i>.</p>
<p>Sub-level 2.2</p> <p>Some topic-related words are general purpose vocabulary used in the medical field, but with a particular meaning not so frequently encountered in general fields and everyday usage. E.g. <i>transcription, pressure, antagonists</i>.</p>
<p>Sub-level 2.3</p> <p>Some topic-related words are associated with more than one particular specialised subject area with the same meaning. An expert in this particular field where these words come from would identify these words as words specific to their discipline. E.g. <i>nitrogen, ethanol, fluorine</i> from Chemistry, and <i>species, organisms, nature</i> from Biology.</p>
<p>Sub-level 2.4</p> <p>Some topic-related words are unique to the medical field, and they are only associated with highly specialised medical topics. These medical words have a subject-specific meaning, and are very unlikely to be found in other disciplines. That is, they will only or almost exclusively be used within the medical field. An expert in the medical and health sciences can identify them as technical or scientific words specific to the subject area. E.g. <i>schistosomiasis, dermatomyositis, enteropathy, hemochromatosis</i>.</p>

However, unlike Quero's (2015) study that analysed numerous sub-fields in medicine, such as chemistry and biology, this analysis was only focusing on the field of spoken rugby discourse. Therefore, during the piloting of the adapted rating scale, it was decided that due to the specificity, the technical scale only needed three scales, as shown in Table 3.4. Although Schmitt (2010) advocates that scales 3 and 4 of Chung and Nation's (2003) rating scale can be combined, for this study they were kept separate. As can be seen in Table 3.4, scales 3 and 4 are more technical than scale 2.

Table 3.4: Overview of the semantic rating scale with rugby examples

Scales	Description	Scale	Examples
Non-technical	A word that is general and not related to rugby	1	<i>like, here</i>
Technical	A word that is used in rugby but with the same meaning most frequently encountered in everyday usage	2	<i>attack, metres</i>
	A word that is used in rugby, but with a particular meaning not frequently encountered in everyday usage	3	<i>season, wing</i>
	A word that is unique to rugby and only associated with rugby	4	<i>loosehead, ruck</i>

The semantic rating scale used in this study differs from Quero (2015) in two ways. First, the wording of each scale was adapted for ease of understanding by non-university domain experts. Due to the size of the corpus in Quero's (2015) study, consulting other raters was not possible. However, as Chung and Nation (2004) advocate for simplifying the descriptors to increase inter-rater reliability and previous lexical studies using raters to analyse technical words (Coxhead & Demecheleer, 2018; Coxhead et al., 2018), three raters were used in the process. The second difference from Quero's (2015) scale is, as mentioned above, one part of the technical scale was removed during the rater training. Upon completion of the first training, the raters were consulted and it was decided that sub-level 2.3 of Quero's (2015) rating scale was to be removed. Once the new rating scale was piloted, there was a 95% level of agreement between the three raters.

3.6.1 Conducting the frequency analysis

The frequency analysis was used to further identify possible technical words in the spoken and written rugby corpus. Similar to the lexical profile analysis (see Section 3.4), the *Range* program (Heatley et al. 2002) was used, along with the adapted BNC/COCA base words lists (BASEWRD 1-25), the supplementary word lists (BASEWRD 31-34), and the rugby word list (BASEWRD 35) (see Section 3.3.1.4). To identify the frequency of each word, the *Range*

program presented the word type results in order of frequency by using 'sort by Freq'. Once the lists were run through *Range*, each word type was listed until its specified cut-off point (see 3.7.2), which was then copied and inserted into a Microsoft Excel file. Function words (e.g. *the*, *and*) were removed because they are non-technical rugby words (Scale 1). This process was conducted using a double-blind ranking with an independent rater (see below), referring to the corpus for meaning. Once function words were removed, the frequency analysis on the spoken corpus highlighted 363 word types that were potentially technical rugby words. The analysis of the written corpus presented 415 possible technical word types.

3.6.2 Conducting the rating scale analysis

With the adaption of the scale and size of the rating analysis, three raters, the researcher, and two independent raters were used to conduct the analysis. Both raters had played for over 10 years and coached for over 5 years at the start of the rating process. With this experience in rugby, the raters were classed as 'domain experts' (Long, 2005). In addition to the two raters, I have had similar experience playing and coaching in rugby and therefore met the criteria to be a rater. Before the analysis, raters were trained in understanding each scale. The training process consisted of raters using the scale to analyse every tenth word type derived from the frequency analysis, for a total of 20 word types. After training, the ratings were compared and discussed before the larger rating activity took place, where a 97.25% level of agreement was reached.

To not overburden the raters, the 363 word types from only the spoken corpus were initially sent along with the rating scale. The list was sent in alphabetical order to not indicate the frequency of each word type which may influence rating. In addition, raters were asked to use their subject knowledge of rugby to rate each word type. Once ratings were complete, the results were collected and compared. This resulted in a reduced primary list of 313 technical spoken rugby words. Prior to sending the 415 written technical words, the spoken and written lists were compared and 120 duplicates were removed so raters did not have to rate them twice. Once the written analysis was complete, a written word list of 134 types exclusive to written rugby discourse were identified. When combined with the 120 duplicates, a primary list of 254 technical written rugby words list was created.

3.6.3 Classifying related types

From the analysis, the issue of related types was raised from the lists. Related types refers to a number of word types that were strongly enough related that they should be classified as one word or at least noted together (Coxhead, 2000). One such example of related types from the spoken word list are the words *meter* and *meters*. Although the word types were acknowledged in the unit of counting during the analysis due to possible semantic differences (see Section 3.6.1), from a pedagogical standpoint, this would create an unnecessary learning burden or confusion if these words were listed separately in a word list. Therefore, while consulting the concordance lines, the lists were classified for related word types. The two principles followed were:

1. The words are semantically the same
2. They received the same semantic rating in terms of technicality

When related word types were found, the word frequencies were combined, and while the base form of the word was kept, the word part was added (e.g., *meter – s*). Once this classification was complete, the spoken word list contained 252 word type groups, while the written list contained 226 word types.

3.6.4 Coverage of technical spoken rugby words in general spoken discourse

Once the technical word list was created, it was analysed using the *Range* program (Heatley et al., 2002) and two general spoken discourse corpora (New Zealand English and general English) to understand the coverage of technical rugby vocabulary in general English. The 10 million spoken section of the British National Corpus (BNC) (Aston & Burnard, 1998) was used as a representative of general spoken discourse. Furthermore, as the technical spoken word list was created in the New Zealand context, the Wellington Corpus of Spoken New Zealand English (WSC) (Holmes, Vine, & Johnson, 1998) was also used. Following Nation's (2016) guidelines of preparing general corpora, the WSC was cleaned by removing texts related to rugby, which resulted in the reduced corpus of 973,990 tokens.

3.7 Developing the rugby Multiword Unit (MWU) lists

The previous section described how the single unit rugby word lists for spoken and written rugby discourse were created by applying frequency principles and a semantic rating scale with three raters. The following sections describe the creation of the spoken and written

MWU lists using a mixed-method approach to identify the most frequent technical MWUs in spoken and written rugby discourse. Four principles were followed to identify technical rugby MWUs in the spoken and written rugby corpora:

1. Two to five word units
2. Word type (number of distinct words in a text)
3. Frequency of five or more times in the corpora
4. Contains a technical word from the single spoken or written word rugby list.

The first three principles, the length, frequency and meaning of the MWUs, will be discussed. Next, the extraction procedure used in the analysis will be described. Finally, the process of using a qualitative analysis to identify the root structure of the MWU for a more pedagogically efficient list will be discussed.

3.7.1 Deciding the length of MWU and word unit of analysis

Before identifying MWUs in the written and spoken corpus, decisions were needed on selection principles. The first principle is the length of the MWU. Although previous studies define MWUs as three to five words (Biber, Johansson, Leech, Conrad, & Finegan, 1999), in this study units of two to five words are used. The reason is many important MWUs in spoken and written rugby discourse are two-word units, or collocations, such as *assistant referee*, *ball carrier*, and *knock on*. If two-word units were not included in the analysis, such central MWUs would not be included. To address the problem of two-word units occurring in three, four, or five-word units (Byrd & Coxhead, 2010; Simpson-Vlach & Ellis, 2010), such as *the side* occurring in *in from the side*, refining the MWU list was necessary. This procedure is discussed in detail in Section 3.7.5. To be consistent with the single word analysis, word type was the unit of analysis, meaning distinct words in a text were identified. Therefore, *knock on* and *knocked on* were considered as two different MWUs.

3.7.2 Deciding frequency criterion for MWU lists

Depending on the size, type, and rationale for a corpus, the frequency criterion for identifying MWUs in previous studies has varied. Such frequency thresholds used an occurrence of five times per million words (Ackermann & Chen, 2013), ten times per million words (Simpson-Vlach & Ellis, 2010), 20 times per million words (Byrd & Coxhead, 2010; Cortes, 2004), and 25 times per million words (Coxhead, Dang, & Mukai, 2017; Wood &

Appel, 2014). These thresholds are higher than when identifying possible technical single words as MWUs do not occur as frequently. In this study, both the spoken and written corpora are small. The spoken corpus is especially specific, with recordings from only the New Zealand rugby context. Therefore, a frequency threshold was set at five times for both the 61,295 spoken rugby corpus and the 37,314 written rugby corpus. This threshold was applied during the extraction phase as described in Section 3.7.4.

3.7.3 Deciding meaning criterion for MWU lists

The final principle followed during the analysis was deciding if the meaning of the MWU relates to spoken or written rugby discourse. The starting point was the single spoken and written rugby word lists because they had already served the purpose of identifying technical vocabulary in rugby. Therefore, only MWUs that contained technical words found in the single rugby word lists were selected. The presence of either one technical word (e.g. quick *ball*, weighted *kick*, taken *down*) or the entire MWU (e.g. *advantage line*, *back line*, *out the back*) was applied. During the analysis, only MWUs that satisfied each of the four principles were selected. The following section details how the technical MWUs for spoken and written rugby discourse were extracted from the corpus.

3.7.4 Extracting the spoken and written MWU list

Antconc (Anthony, 2014), the concordance software, and its *Clusters/N-gram* function was used to retrieve technical MWUs from the rugby corpora. This function allows the user to decide the length of the unit and the frequency threshold prior to performing the analysis. To perform this method of extraction, each word from the technical single word lists was individually analysed, with the results copied and pasted into an Excel sheet. Although this method was very time-consuming, it ensured that the results contained only technical MWUs that followed the four selection principles. In total, the provisional spoken MWU list contained 414 entries, while the written MWU list was over 2,797.

3.7.5 Sorting overlapping MWUs

From the analysis, there was considerable overlap between the 2, 3, or 4 word units, as in this example with *to kick* (2) which also appears in *the intention to kick* (4), *intention to kick at goal* (5). Previous studies have also identified this problem when creating MWU lists

(Byrd & Coxhead, 2010; Hyland, 2008a). To date, one study that introduced a potential solution that deals with this problem and assists in creating a more pedagogically applicable MWU list is by Wood and Appel (2014). Their solution was to highlight the root structure in the MWU and place any variable slots in brackets at either end of the structure. For example, in the five-word unit, '*is the sum of the*', the root structure was identified by its frequency as '*the sum of*' and the variable slots were '*is*' and '*the*'. Therefore, the MWU was presented as '*(is) the sum of (the)*'.

Following Wood and Appel's (2004) approach to identifying the root structure, the provisional MWU spoken and written rugby lists were analysed. The principle used was if a shorter MWU was folded in a longer MWU, the shortest MWU was considered the root structure and the variable slots were italicised. The frequency of each MWU was also checked to ascertain two points: (1) the root structure and (2) the complete MWU. For example, '*to ground*' occurred 37 times in the provisional MWU list. Therefore, in MWUs such as '*brought to ground*', '*first to ground*', and '*first to ground the ball*', the root structure was '*to ground*' and the other words (e.g. *brought, first, the ball*) were identified as variable slots. For the same root structure, '*ball carrier brought to ground*' and '*carrier brought to ground*', both occurred nine times in the analysis. Therefore, the complete MWU was '*ball carrier brought to ground*'. Instead of placing variable slots in brackets, a more pedagogically efficient method of displaying the complete MWU was sought. Table 3.5 below presents all MWUs for the technical single word, *ground*.

Table 3.5: Example of MWUs for *ground*

Variable slots	Root structure	Variable slots
<i>on</i>	the ground	
<i>touches</i>	the ground	
<i>a player on</i>	the ground	
<i>ball on</i>	the ground	
<i>lying on</i>	the ground	
<i>player(s) on</i>	the ground	
<i>Brought</i>	to ground	

<i>ball carrier brought</i>	to ground	
<i>First</i>	to ground	
<i>is first</i>	to ground	
<i>first</i>	to ground	<i>the ball</i>
<i>is first</i>	to ground	<i>the ball</i>
<i>No</i>	gain in ground	

As can be seen in Table 3.5, although there were only three root structures ('*the ground*', '*to ground*', '*gain in ground*'), there were 13 variations. Variable slots are italicised at each end, with the root structure in middle. By identifying the root structure and the complete MWU, the number of MWUs in each list reduced considerably. In total, the spoken MWU list contains 223 root structures and the written MWU list contains 417. The list itself will be presented in Section 6.4.

In sum, the sections above presented the methods used to create and analyse a rugby corpus, investigating the lexical profile and vocabulary load of spoken and written rugby discourse. Furthermore, the principles and analysis of the corpus to create the single and MWU lists were also presented. The following sections will present the methods used to investigate if the identified technical vocabulary or other aspects of language affect foreign players and coaches.

3.8 Investigating the linguistic needs of foreign rugby players and coaches

The analysis of the rugby corpora as presented above indicates technical rugby vocabulary is prevalent throughout spoken and written rugby discourse. It is unclear however, if this aspect or other aspects of language affect rugby players and coaches in the New Zealand and Japanese contexts. Therefore, the following sections describe the methods used in the third study to conduct and analyse a linguistics needs analysis using two data collection methods. The first was the creation and administering of an online needs analysis survey. The following sections outline the creation of the survey, followed by the piloting and distribution. Finally, information regarding the survey respondents is presented. The second data collection method involved semi-structured interviews. Again, a description of the

participants, followed by the creation, piloting, administration, and analysis of the interview will be presented.

3.8.1 Needs analysis surveys

The purpose of the surveys was to gather a large amount of information pertaining to the linguistic needs of rugby players and coaches in New Zealand and Japan. The benefits of initially using surveys over other data collection methods are the possible number of respondents, the time involved in administering surveys, and the ease of which they can be administered (Dörnyei & Taguchi, 2010; Long, 2005b). In addition, as the surveys were created online, distributing them within the two countries was easier than by the traditional method of pen and paper. The following subsections start with a detailed description of the surveys and how they were created and piloted, followed by a description of the respondents. Finally, the administration process will be explained.

3.8.1.1 Creating the surveys

To answer research questions 1-4 (see Section 2.9), 10 different surveys (see Appendix 1-8) were designed with two overarching themes: language difficulties and rugby language. The surveys were created in Japanese for Japanese players and coaches in Japan and New Zealand, and in English for English speaking players and coaches in Japan and New Zealand, totaling 10-sub groups (see Table 3.11 below for more details on survey respondents). Dörnyei and Taguchi (2004) advocate that translations of surveys should produce a) close translation to the original and b) natural sounding questions. In light of these recommendations, the Japanese translation was checked by a native Japanese speaker. The online survey tool *Qualtrics* was used to distribute the survey (www.qualtrics.com). This tool allows for ease of distribution using either a link or a QR code. *Qualtrics* also allows the use of Japanese characters.

An initial pool of 100 items was created with multiple item types. DeVellis (2003) notes that it is not uncommon to have an item pool of three to four times more than the final scale. To decrease the item pool for the surveys, an initial analysis of the 100 items was conducted to remove any that are not in line with Dörnyei and Taguchi's (2004) rules of writing items. These rules include having items that are short and simple, use natural language, not being

ambiguous or loaded, negative or double-barreled, and can be translatable (p.40-43). From the initial analysis, the item pool decreased to 50. An initial piloting phase with four colleagues was then conducted to mark any items that needed improvement, were not 100% clear, or unnecessary. This further decreased the number of core items to the final 28 used in the survey.

In addition to the 28 core items, nine of the ten surveys contained supplementary items to investigate differing factors, such as geographical location, mother tongue, or the respondent's role in the rugby context. For example, the item about *a coach's ability to coach rugby at their highest level is affected by language difficulties* was only presented to coaches. To present these items to the intended specific group (e.g. Japanese speaking player in Japan; English speaking coach in New Zealand), Display logic and Skip Logic was utilised in Qualtrics.

As can be seen in Table 3.6, the surveys had six sections. Multiple item types were used to achieve the goal of the section. Item types within the survey included open and closed-types, such as a seven-point Likert scale, multiple choice, and ranking. Table 3.6 shows the number of core items within each section. As noted above, additional items were added according to the sub-group. Japanese speaking coaches in New Zealand and English-speaking coaches in Japan were the largest sub-groups, with both surveys containing a total of 36 items.

Table 3.6: Overview of the survey with core items

Section	Goal of section	Item types	Example item	Number of items
1. Introduction	Introduce ethics	N/A	N/A	1
2. Background questions	Allocate responses into groups.	Multiple choice, 5-point Likert scale,	<i>In which of the following countries, if any, have you played and for how</i>	8

		matrix table	<i>long have you played?</i>	
3. Communication in rugby	Experience with language difficulties	Slider, Multiple choice, Ranking, 7-point Likert scale, open-ended	<i>A player's ability to play rugby at their highest level is affected by language difficulties</i>	6
4. Experience learning rugby language	Previous experience learning rugby language / how it affects communication	Multiple choice, 5-point Likert scale,	<i>Thinking about language difficulties, which of the following situations, if any, have been affected by a language of rugby language?</i>	2
5. Acquisition of rugby language	Study methods to learn rugby language / TV commentary	Matrix table, Ranking, multiple choice, Open-ended	<i>Which of the following study methods do you think are effective for learning rugby language?</i>	7
6. Vocabulary receptive knowledge task	Receptive knowledge of rugby vocabulary	Drag and drop, multiple choice	<i>What rugby words should every rugby player/coach know?</i>	4
Total				28

Here is an outline of each section.

1. Introduction: As shown in Table 3.6, the introduction included the ethics information sheet and an initial question to ascertain if the participant wanted to complete the survey in English or Japanese. The information sheet, as seen in Appendix 9, was written in both Japanese and English. This section also explained details such as the topic, the rationale, benefits of the survey, how long it would take to complete, and ethics information.

2. Background questions: This section contained two subsections. The first asked personal questions such as their role in rugby (coach or player), gender (male, female, other), geographical location (Japan, New Zealand, other), their mother tongue, and nationality. According to the answers, Skip Logic was used to move respondents into their corresponding group.

The next section contained items which focused on general experience in rugby. Items included how long and where participants have played or coached and what position they have played. By gathering information on their rugby experience, it was possible to ascertain if there was a correlation between their experience in the rugby context with variables such as rugby language knowledge and language difficulties. This section used multiple item types as shown in Table 3.7.

Table 3.7: Background questions item types

Item type	Example
5-point Likert scale	<i>I am currently studying Japanese/English:</i>
Multiple choice	<i>I have played / am playing the position of:</i>

3. Communication in rugby: The goal of this section was to gather data on experience with language difficulties in the rugby context and how they dealt with these problems. Items focused on various aspects of language difficulties in communication such as listening, speaking, pronunciation, vocabulary, and fluency. Respondents were asked in what situations language difficulties occur and with whom. Three items in the section also asked for the respondent's opinion on language difficulties. One such question used a seven-point Likert scale (Strongly Agree to Strongly Disagree) to ask if they believe language difficulties

can affect a player's ability to play rugby at their highest level. Examples of item types in this section are presented in Table 3.8.

Table 3.8: Communication in rugby item types

Item type	Example
Slider	<i>When you are speaking to people in the following situations, what percentage is in English?</i>
Multiple-choice	<i>Which of the following language difficulties, if any, have you experienced with non-English speakers?</i>
Open-ended	<i>If you could give advice on communicating and language to future English-speaking rugby players coming to Japan, what would it be?</i>

4. Experience learning rugby language: The purpose of this section was to ascertain how respondents initially learned rugby language in their L1. Respondents in the L2 setting were also asked if and how they are currently learning L2 rugby language. In addition, one question focused on how rugby language has affected communication. The two core items in this section are presented in Table 3.9.

Table 3.9: Experience learning rugby language item types

Item type	Example
Multiple-choice	<i>How did you learn the language you use for playing?</i>
Multiple-choice	<i>Thinking about language difficulties, which of the following situations, if any, have been affected by a language of rugby language?</i>

5. Acquisition of rugby language: The final section focused on methods used to learn rugby language and the differences between English and Japanese rugby language. Themes in the section included: How important the knowledge of rugby language is when communicating with different people in the rugby context, where rugby language occurs the most, and study methods to learn rugby language, such as television commentary or rugby magazines.

Respondents in the L2 setting were also asked how rugby language differs between their L1 and the L2. Examples of item types in this section are presented in Table 3.10.

Table 3.10: Acquisition of rugby language item types

Item type	Example
Matrix table	<i>How important is knowledge of rugby language when communicating with the following people?</i>
Ranking	<i>Rank the following situations where rugby language occurs the most:</i>
Multiple-choice	<i>In what ways does Japanese rugby language differ from English rugby language?</i>

6. Vocabulary receptive knowledge task: Within the survey, a receptive knowledge task was developed to investigate if respondents can identify technical rugby vocabulary. As the survey was distributed to the target populations of L1 Japanese and English speakers, the results of this task show if, and to what extent, the receptive knowledge of technical rugby vocabulary differs or is similar between the two groups. The task contained four items. The first two items were knowledge tasks, followed by two attitudinal items to investigate their opinion on what technical rugby words and MWUs such as those found in the corpus analysis (see Section 3.7.4), should be known by rugby players and coaches.

A receptive knowledge task of 60 lexical items (30 technical rugby words from the corpus analysis and 30 non-rugby specific words as distractors) were used in the receptive knowledge task. Respondents were asked to highlight words that they recognized or believed to be closely related to rugby. The 30 technical rugby words were 15 single words and 15 MWUs identified from the corpus analysis as technical in rugby discourse (see Sections 3.6 and 3.7). Some examples of technical single and MWUs items in the task are *offload*, *tighties*, *ruck*, *inside the twenty-two*, *knock on*, and *over the ball*. Items were chosen according to their semantic rating scale, with 12 rated as 2, 10 rated as 3 and eight rated as 4. See Table 3.4 for more detail on the semantic rating scale.

The 30 general English items were from Nation's (2012) BNC/COCA 25,000 word list and the spoken section of the Academic Formulas List (Simpson-Vlach and Ellis, 2010). None of the general single or multi-word items occurred in the rugby corpus. All 15 single items were high frequency, occurring in Nation's (2012) BNC/COCA's first 3,000 base word families, so respondents were more likely to recognise the words. Example items included: *tent*, *sick*, *garage*. The multiword units were from the spoken section of the Academic Formulas List (Simpson-Vlach and Ellis, 2010). Academic multiword units were chosen as distracters because they would be different to the rugby multiword units. Examples of the general units were: *you can see*, *it doesn't matter*, *take a look at*. A full list of the lexical items used in the knowledge task can be seen in Appendix 1, pages 240-242.

The two attitudinal items contained the 30 technical rugby words used in the receptive knowledge task and asked respondents to highlight the items they believed every rugby player and coach should know. The results were then compared to the raters' results from the semantic rating scale analysis (see Section 3.6.2). This triangulation of results provides a better understanding of how, and to what extent, the technical rugby word list can be pedagogically beneficial.

At the end of the survey, an open-ended item allowed respondents to comment on the survey. In this section, respondents were also asked if they would be willing to complete a follow-up semi-structured interview, and if so, to provide their contact details.

3.8.1.2 Piloting the survey

Prior to piloting and distributing the need analysis, ethics approval was sought from VUW Human Ethics Committee. Information sheets and consent forms were created and ethics for the study was approved (reference number 24720) (See Appendix 10 for Ethics Approval). The survey information sheet was posted on the first page of *Qualtrics* for respondents to read and if they proceeded, they gave consent.

Once the survey was created and uploaded to *Qualtrics*, three L1 English and Japanese speakers were recruited for the final piloting of the survey. All six had over five years' experience playing and coaching rugby. All six were residing in Japan at the time of the

study, but also had playing experience in a foreign setting. The survey link was sent via email, along with a list of possible areas to comment on. These areas were the wording of questions, the structure of the survey, the length (e.g. questions, page layout, and overall time it took to complete the survey), the question types, and technical problems (e.g. Skip Logic or Display Logic), and any other comments.

The L1 Japanese speakers were also asked to highlight any errors in Japanese. Each participant completed the survey twice, once as a player and again as a coach. Examples of suggestions included two L1 Japanese speakers commenting that although the phrase ‘特定
の語彙’ (*specific vocabulary*) was correct, the Kanji was ambiguous. Therefore, the characters were changed to ‘専門的語彙’ to make the phrase more specific to the context.

The results of the pilot indicated that the survey took between 10 and 15 minutes to complete, depending on the sub-group. For example, as English-speaking coaches in Japan were asked the most items, the survey took approximately two minutes longer to complete. Each version of the final surveys for foreign speakers can be found in Appendices 1-4.

3.8.1.3 Distribution of the surveys

The initial data gathering method used a snowball technique (Browne, 2005). Possible respondents with experience playing rugby in both Japan and New Zealand were contacted via email, phone, social media, or face-to-face, and asked to complete the survey. In addition, they were asked to distribute the link to other known contacts in rugby. The researcher was also invited to speak and distribute the survey link to six clubs in Japan and the Wellington region.

Once all possible contacts were exhausted, the initial aim of 85 responses had unfortunately not been achieved. Therefore, a different data gathering method was used to widen the search. With ethics approval, the survey link was posted on the Facebook page *Vic Deals*; an Internet public page that at the time of the posting, had over 107,000 members. It is commonly used for selling items, advertising rentals, or posting local information such as events. The page was created for residents in the Wellington region. The page is also used

as a recruiting tool for surveys or interviews. Posting the survey link to this page allowed for enormous publicity in the region that was unachievable with the snowball technique.

3.8.2 Respondents

Completed surveys were screened so that at least 75% of the survey was complete. All respondents had experience coaching or playing rugby for at least one season. L2 respondents had a minimum of one-month experience in the L2 setting prior to completing the survey, and would be in the L2 setting for a minimum of two months after completing the survey. These criteria were set to confirm that each respondent had experience of using spoken rugby discourse in either the L1 setting or both the L1 and L2 setting. It is of note that although a 75% completion rate may be seen as low, as this is an exploratory study and the data is rich with crucial information on the needs of players and coaches, it was decided to use the responses. Overall, 103 surveys were completed. However, through the screening process, 17 were removed as they did not meet the selection criterion.

In total, the survey received 86 completed responses. These responses came from two groups: 30 English speakers and 56 Japanese speakers. Table 3.11 details respondents' demographic information, in addition to their role in rugby and the language the survey was completed in. Although they were not required to provide their age, before starting the survey, they agreed to the conditions which stated they had to be over 18.

As can be seen in Table 3.11, 15 players and 15 coaches completed the survey in English. From the coaches, one was residing outside of Japan and New Zealand. From the 86 completed responses, 56 were completed in Japanese; and 50 players and four coaches took the survey. As also noted in Table 3.11, two Korean nationals completed the survey in Japanese. Their results were added to the foreign speakers in Japan.

Table 3.11: Overview of survey respondents

Language survey was completed in	New Zealand	Japan	Other	Total
English – player	6	9		15
English – coach	9	5	1	15

English – total				30
Japanese – player	8	42		50
Japanese – coach	1	3		4
Japanese – total				54
*Korean – player		2		2
TOTAL				86
Male	23	62		85
Female	1	0		1

3.9 Semi-structured interviews

The second data collection method used in the linguistic needs analysis was semi-structured interviews. This section will describe the data collection used in the study. First, the creation and piloting of the interview and the participants in the interviews will be described. Finally, the interview process will be discussed.

3.9.1 Creating the interviews

As the purpose of the survey was to gather in-depth qualitative information on the two themes of the survey, language difficulties and rugby language, questions that elaborated on the same five survey sections were created (see Table 3.12). Using the five sections and the 28 core survey items to structure the interview process resulted in 28 initial interview questions. These questions were then divided into either content or probing questions (Dörnyei, 2007). A time limit of 20 minutes was applied to the interview. Although semi-structured interviews can last from 30 minutes to several hours (Whiting, 2008), due to the majority of participants working full-time and time differences between New Zealand and Japan, any interview longer than 20 minutes would have made it difficult to get willing participants. Therefore, 13 questions were removed. Following Patton's (2002) interview guideline, a maximum of four core probing questions for each of the five sections of the interview were included to ensure that the basic structure of each section was pursued, but allowed the freedom and time for explanation and elaboration on these themes. Some example questions in each section are presented in Table 3.12.

Table 3.12: Interview guideline

Section	Example question	Number of questions
Pre-interview	Explain the purpose, time limit, confidential, audio recorded, can ask for clarification, can ask interviewer questions	N/A
Background information	So far, what level of rugby have you played and where?	3
Communication in rugby	For the question ‘a player’s ability to play rugby at their highest level is affected by language difficulties’, you stated _____. Could you elaborate on your answer please?	4
Experience learning rugby language	You stated you have had language difficulties with _____. Could you elaborate on a time you experienced a difficulty communicating because of rugby language?	2
Acquisition of rugby language	You stated you believe knowledge of rugby language is important when communicating with _____. Could you elaborate on why you think this?	3
Vocabulary receptive knowledge task	You stated you believe these words should be known. Could you elaborate on why you think this?	3
End of interview	Thank the participant, ask if any questions, give koha.	N/A

3.9.1.1 Piloting the interviews

All six participants who piloted the survey were again recruited for the pilot interview (see Section 3.8.1.2). Their experience with the survey meant they met the same criteria for piloting the interview questions. Piloting was completed by video chat and audio recorded. Participants were asked to comment on areas, such as the wording of the questions, the

format of the interview, questions which will likely be elaborated on, the length of each question and the overall length of the interview, and any other aspects of the interview that possibly needed attention.

Similar to the pilot survey, L1 Japanese speakers were asked to also check the questions for errors in Japanese. As all six participants had coaching experience, both player and coaching prompts were trialed. One revision made for the interview process was a reduction of the questions. The pilot consisted of 17 core questions, but through comments made by the participants, two questions with similar wording to other questions were removed. The interview prompt is in Appendix 11.

3.9.2 Participants

In total, 12 participants agreed to take part in the semi-structured interviews (see Table 3.13). As stated in Section 3.8.2, any participant who was interested in completing the follow-up interview was asked to provide their contact details. Each participant was then contacted and provided with the information sheet and consent form for ethics (See Appendices 12-13 for English and Appendices 14-15 for the Japanese translation). The participants were asked to reply with possible dates and times within a given two-week span when they were free and also asked about where they would like to meet, such as at their rugby club, at university, or in a café. A phone interview option was also provided. From the 12 participants, six were players and six were coaches. There was a range of experience in the rugby domain, with one participant being in the sport 5+ years and two having over 30+ years' experience. Five of the 12 participants were based in an L2 setting, with four in Japan and one L1 Japanese speaker in New Zealand (See Table 3.13). As Table 3.12 also shows, three were non-native English speakers, with one Fijian and two French speakers. As they were residing in the L2 setting, their experiences have been recorded as a foreign speaker.

Table 3.13: Overview of Interview Participants (IP)

Participant	Role in rugby	Mother tongue	Residence	Year of rugby experience
IP1	Player	Fijian	Japan	20+
*IP2	Player	French	Japan	5+
*IP3	Player	Japanese	Japan	10+
*IP4	Player	Japanese	Japan	10+
IP5	Coach	French	Japan	30+
IP6	Coach	English	Japan	30+
*IP7	Player	Japanese	New Zealand	10+
*IP8	Player	English	New Zealand	10+
*IP9	Coach	English	New Zealand	20+
IP10	Coach	English	New Zealand	20+
*IP11	Coach	English	New Zealand	20+
*IP12	Coach	English	New Zealand	20+

Note: * Refers to participants in 3.9.4

3.9.3 Conducting the interviews

Prior to starting the interview, the checklist from Whiting (2008, p.37) was explained to the participants to clarify aspects such as, the purpose of the interview, format of the interview, and assurance of confidentiality. Additionally, it was confirmed the participant had read, understood, and signed the consent form. If they had any questions about the form or had forgotten to sign it, a copy was provided. During the interview, a copy of the participant survey results was given to remind the participants what their answers were. It also assisted in guiding the interview procedure. The researcher highlighted or pointed to the question of interest to focus their attention and allow them to recall their rationale behind the answers they gave.

As the interview was semi-structured, five of the 12 interviews went over 20 minutes, with the longest lasting over an hour. If the interview went over 20 minutes, the participant was informed of the time and asked if they would like to continue. To elicit as much information as possible, probing techniques as recommended by Whiting (2008) were utilised throughout. *Baiting*, meaning to indicate to the participant that the interviewer is aware of the information, which in turn prompts more information, was a commonly utilised technique. Other techniques used in the interview that Whiting (2008) recommends were using simple verbal agreements, such as *yes* or *sure*, to indicate to the participant that the researcher was aware of the information and situation they were discussing. When concluding the interview, each participant was thanked for their time and given a \$15NZD or ¥1,000 gift card. For a sample transcript of a semi-structured interview, see Appendix 16.

3.9.4 Vocabulary productive knowledge task

This section describes an elicitation task conducted after the semi-structured interviews to obtain samples of productive vocabulary, focusing on two types of speech: Free relaxed speech and focused time-pressured speech using video narration. However as discussed in Section 3.9.4.4, the data set was not used in the main study.

3.9.4.1 Creating the elicitation task

The elicitation task consisted of two sections. The first section was story generation, specifically asking participants to retell a story. Southwood and Russel (2004) note that story generation allows the participant to describe an experience in their own words without imposed language constraints, but still encourages the spontaneous productive use of specific vocabulary and formulaic sequences. Two initial prompt questions were created to start the dialogue on the topic of rugby. These prompts were:

- *What was the last rugby game you watched?*
- *What happened in the game?*

If these prompts did not elicit the participant to speak for the allotted time of five minutes, the prompt "*can you recall an exciting phase of play in the game?*" was used.

The second section in the elicitation task used videos to elicit more focused constrained speech. Dollaghan, Campbell and Tomlin (1990) note that video narration allows for the task

to be constant, which will standardise the language used by the participant. Four two-minute videos were created for this section. Segments of the three games were collected from the TV commentary corpus (see Section 3.2.1). Two selection principles were applied when searching for video segments (See Table 3.14). The first principle was two set-pieces had to occur, such as *lineouts* or *scrums* (Kuiper & Haggo, 1984; Kuiper & Lewis, 2013). The second principle was that two phases of play also had to occur. Phases of play are events that occur between set pieces (Desmarais & Bruce, 2010). Kuiper and Lewis (2013) suggest that these two events contain a large amount of formulaic speech as well a technical rugby vocabulary. Four two-minute segments were identified from the three games and combined into a separate video for the task. The video was muted as the participants were required to narrate the video themselves.

Table 3.14: Overview of video narration task

Prompt	Selection criterion	Number of videos	Length of video	Repetition	Length of narration
Video of a rugby game without commentary	Two set pieces (Lineout and Scrum) Two phases of play	Four	Two minutes	Twice	Three minutes

3.9.4.2 Piloting the elicitation task

All six participants who piloted the survey (see 3.2.4) and interview (see 3.3.3) were again recruited for piloting the elicitation task. As stated in section 3.2.4, three L1 English and Japanese speakers were recruited. When asked, all three Japanese speakers rated their English proficiency as upper intermediate. Two of the pilots were completed face-to-face, while the remaining four were completed by video chat. This allowed for trialing the procedure with Call recorder. Participants were asked to comment on areas of the task, such as the wording of the instructions and questions, the format of each section, the length (e.g. time of each section, time of each video, overall timing of the task), the difficulty of the task, the appropriateness of the videos, and any other comments pertaining to the task.

The L1 Japanese speakers were asked to check the instructions and questions for errors in Japanese. Overall, the L1 English speakers noted the task was interesting and fun, while the L1 Japanese speakers said it was difficult, but interesting. From the pilot, no changes were made to the materials. However, it was a valuable experience for understanding the process and overall timing of each section. The pilot indicated the story generation was five minutes and the video narration took a maximum 35 minutes, for a total of 40 minutes.

3.9.4.3 Conducting the elicitation task

After the semi-structured interviews were completed, participants were offered a short break before commencing the elicitation task. The task was video recorded by using either a video recorder if face-to-face or by Call Recorder if completed by video chat. The task was video recorded to capture both audio and visual for any instance of non-verbal communication such as gestures, or body language. First, the participant was asked the story generation prompts as stated in Section 3.9.4.1. Once five minutes had passed and there was a lull in the story telling, the video narration began. Note paper and a pen was provided and it was explained to the participants that one video would be played through in its entirety twice; once for familiarity and again for note-taking. While the video was played entirely the third time, they narrated its contents. This process was repeated three more times with the different video segments. Once it was completed, the participant was thanked for their time and given a \$15 or ¥1,000 gift card.

3.9.4.4 Withdrawal of participants

Eight of the 12 participants recruited from the semi-structured interviews agreed to take part in the elicitation task: four native speakers and four foreign speakers (see Table 3.13 E.g. *IP2). However, once the task was completed, the four foreign speakers decided to withdraw and their data was deleted. The reason for withdrawing was because the task was too difficult and the participants did not feel confident in their proficiency to successfully complete the task. Thus, it was decided to discontinue analysing the data set as it was too small to obtain any significant findings. These limitations will be further discussed in Section 8.5. While not part of this study, an analysis on the productive use of technical vocabulary by native speaking players and coaches would be of interest that can be conducted in future studies, which is discussed in Section 8.6.

3.10 Data analysis

In the previous sections, the process of creating the two survey and interview data collection methods was described. Now, the following subsections will detail how the survey, receptive knowledge task, and semi-structured interviews were analysed.

3.10.1 Data analysis of the surveys

A combination of descriptive and statistical analysis was used to analyse the data. Once all surveys that did not meet the selected criterion were removed (see Section 3.8.2), the remaining 86 were run through SPSS (22.0) for analysis. Due to the small size of each group, data from groups in the L2 setting in both contexts were analysed together (see Table 3.15). For example, data from foreign speaking coaches and players in Japan were analysed together. If the data set was still too small, data from all foreign speaking coaches and players in Japan and New Zealand was combined and analysed (see Table 3.15). Although this meant data analysis of each sub-group was not possible, investigating the linguistic needs of L1 and L2 speakers was still achievable.

Table 3.15: Grouping of sub-groups in survey analysis

Original sub-groups	Combined L2 New Zealand and Japan	Combined native and foreign
English player New Zealand	Native New Zealand (15)	Native speaker (61)
English coach New Zealand		
English coach Other	Native Other (1)	
Japanese player Japan	Native Japan (45)	
Japanese coach Japan		
English player Japan	Foreign Japan (16)	Foreign speaker (25)
English coach Japan		
Japanese player New Zealand	Foreign New Zealand (9)	
Japanese coach New Zealand		

As can be seen in Table 3.15, five new sub-groups were created in new group 1 and new group 2. Within the new sub-groups, respondents were combined and re-categorized as native or foreign, depending on where the survey was completed. For example, English speakers in Japan and Japanese speakers in New Zealand were re-categorized as foreign speakers. Once groups were combined accordingly, Fisher's exact test was performed on the quantitative questions to determine if there was a statistical significance between the groups. Additionally, qualitative questions were collected and analysed using thematic analysis to highlight any emerging patterns from the responses.

3.10.2 Data analysis of vocabulary receptive knowledge task

In addition to the survey and semi-structured interviews, respondents also completed a vocabulary receptive knowledge task. To analyse the data, a combination of descriptive and statistical analysis (the Mann-Whitney U test) was used. The aim of the task was to compare receptive knowledge of technical rugby vocabulary between L1 and L2 English speakers. Therefore, data from all English-speaking players and coaches were combined and compared with data from all Japanese speakers. The Mann-Whitney U test was used to compare the overall difference between the two groups, as well as differences between the 60 individual words and MWUs. As multiple statistical tests were carried out on the same data sample, the Bonferroni correction test was also conducted to receive an adjusted p-value.

3.10.3 Data analysis of the interviews

Following six key stages as proposed by Braun and Clarke (2006), themes within the data were sought for thematic analysis. The key stage are: Familiarising yourself with your data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report (p. 35)

As both the interviews and transcription process were conducted by the researcher, the first stage was easily completed. Each transcript was re-read several times and initial codes were noted. In addition to searching for new themes within the data, as the interview was conducted using the themes of the survey (see Table 3.6), they were utilised as provisional themes throughout the analysis. Keywords such '*vocabulary*' or '*rugby language*' were

highlighted and collated under each theme. Participants often answered prompt questions in different themes, such as answering questions from the *communication in rugby* theme in the *background information* theme (see Table 3.12). During the analysis, this data was highlighted and put under a corresponding theme. During stage four, key questions from Braun and Clarke (2012) were followed to review highlighted themes. The key questions are: Is this a theme? If so, then four more questions follow: what is the quality of this theme, what are the boundaries of this theme, are there enough data to support this theme, and are the data too diverse and wide ranging? (p.65). In stage five, data under each theme was compared to the quantitative data from the survey. Features such as if the interview participant was a foreign speaker or native speaker were highlighted and compared to the survey data to identify any overlaps, contrasting features, or extra information. Finally, compelling extracts from the interview data that pertained to each question and assisted in providing a well-rounded view of the question were highlighted. Once complete, an independent rater from the same institution as the researcher cross-checked the data with the codes, themes, and extracts for any errors. Providing the rater all interview data and analysis results to check for errors in the coding, such as missed themes or extracts. The independent rater was asked to critically review the themes using the key questions stated above, from Braun and Clarke (2012) and did not find any errors.

3.11 Chapter summary

In summary, this chapter presented the methodology employed in two investigations on language in rugby. The chapter first outlined the principles, selection criterion, and methods applied to create a 61,295 word spoken rugby corpus and 37,314 written rugby corpus. With the creation of these corpora, the chapter then presented the method of analysing the lexical profile and vocabulary load of each corpus, investigating the coverage of high, medium, and low frequency words.

The chapter then presented the method of analysis to investigate technical rugby vocabulary in the spoken and written corpus. Principles such as unit of counting, frequency, and meaning were described in detail, along with the creation and pilot of a semantic rating scale to analyse the corpora for technical rugby vocabulary and create four word lists; a 313 spoken and 254 written single word list and a 223 spoken and 417 multi-word list.

The chapter then detailed the design, data collection, and subsequent analysis of a linguistic needs analysis that entailed two methods, surveys and semi-structured interviews.

Information about the creation, piloting, and distribution of the surveys to a total of 86 respondents was described. This was then followed by information on the creation, piloting, and conducting of 12 semi-structured interviews and eight elicitation tasks. Finally, the data analysis process in which a descriptive and statistical analysis using Mann-Whitney U and Fisher's exact test was used to analyse the quantitative data, and thematic analysis approach to analyse the qualitative approach was described in detail.

In Chapters 4, 5, and 6, the findings of this study will be presented. As stated in Section 1.4, to assist the reader in understanding the full scope of language in rugby, the thesis results are presented in three chapters. Chapters 4 and 5 present the findings from phase two of the study, such as the quantitative and qualitative data from the linguistic needs analysis. Chapter 6 presents phase one results, such as the lexical profile, vocabulary load, coverage of technical rugby vocabulary, the single and multi-word lists, and the vocabulary receptive knowledge task.

Chapter 4 Needs analysis results: Language difficulties

4.1 Introduction

The following chapter is the first of two result chapters on phase two of the study. Two data collection methods, an online survey and semi-structured interviews, were used to investigate the linguistic needs of players and coaches in New Zealand and Japan. Data from the needs analysis presented in the two results chapters and were chosen using the following two principles:

- Both quantitative (survey) and qualitative (interview) data that can be combined to provide a more in-depth overview of the linguistic needs of players and coaches.
- The most frequent and salient themes from the thematic analysis pertaining to the key questions stated below and Section 5.1.

This chapter will focus on the results pertaining to general language difficulties that arise in rugby. The findings in the following chapter, along with those in Chapter 5, will assist in answering the following research question, also stated in Section 3.1:

1. What are the linguistic needs of foreign speakers in rugby in New Zealand and Japan?

The following sections in the chapter will present the findings of five items from the needs analysis which focused on general language difficulties in the rugby context. Each section details the data from one item of the survey, along with the theme and supporting evidence in the form of quotations from the interviews. The following key questions were raised in the analysis:

- Are language difficulties affecting playing/coaching? (Section 4.2)
- What situations in the rugby setting do these difficulties occur? (Section 4.3)
- Are language difficulties occurring in spoken or listening contexts? (Section 4.4)
- What language aspects are affecting communication breakdown? (Section 4.5)
- What strategies are used to overcome these difficulties? (Section 4.6)

4.2 Language difficulties affecting playing / coaching rugby

The statement *A player's / coach's ability to play rugby at their highest level is affected by language difficulties* was presented in the survey. Respondents selected from a seven-point

Likert scale from *strongly agree* (7) to *strongly disagree* (1). First the results from players and then results from coaches will be presented.

Table 4.1 shows both Foreign Speakers (FS) and Native Speakers (NS) believe language difficulties affect a player's ability to play at their highest level. Eighty-four percent (21 of 25) foreign speakers indicated they either *somewhat agree*, *agree*, or *strongly agree*; with *strongly agree* the highest rated with 40% (N=10).

Table 4.1: Impact on a player's ability and language difficulties

	N	Mean	SD	1 (<i>strongly disagree</i>)	2	3	4	5	6	7 (<i>strongly agree</i>)
FS	25	5.48	1.68	0%	12%	4%	0%	32%	12%	40%
NS	60	5.1	1.7	3.33%	8.34%	8.34%	6.66%	25%	25%	23.33%

Note: FS= Foreign speaker, NS= Native speaker, 1=Strongly disagree, 2=Disagree, 3=Somewhat disagree, 4=Neither agree or disagree, 5=Somewhat agree, 6=Agree, 7=Strongly agree

Native speakers also overwhelmingly agree with 73.3% (44 of 60) of the respondents stating they *somewhat agree*, *agree*, or *strongly agree* with the statement. On the contrary, 16% (N=4) of foreign speakers and 18.9% (N=12) of native speakers believe language difficulties do not affect a player's ability to play. Fisher's exact test was used to assess the statistical significance between foreign speakers and native speakers and no statistical significance was found ($P=.457$).

In the semi-structured interviews, participants were asked to expand on their survey answers. All the interview data was analysed using thematic analysis to highlight themes that arose (Braun & Clarke, 2006). The interview data was consistent with the survey data with all participants (N=12) reiterating their survey answers. Furthermore, participants elaborated on their survey answers, providing their views on what language difficulties are affecting their playing ability. The most frequent theme that arose in the interviews

pertaining this issue was *listening*, which is defined in this context as language aspects (e.g. pronunciation, accent) from the speaker that affect comprehension.

The following excerpt from a foreign speaking (French speaking) player in Japan (IP2), describes two reasons how *listening* difficulties affect his playing ability. First, IP2 notes *pronunciation*, specifically *accent*, affect his understanding of play calls (instructions for what will occur in the next phase of play), or “combinations” during a game. It is common for the captain or senior player in the team to state the play call. Second, IP2 explains *listening* difficulties occur, particularly affecting *fluency*, due to the speed of the game.

Interviewer: *So, you somewhat agree that a player's ability can be affected because of language difficulties?*

IP2: *Yes of course. During a game, actually if you don't understand what other people say, it happens sometimes, you know, there is combination, and when somebody tells you the combination but you don't understand well, it could be, yeah, a problem. So, it impacts your game actually.*

Interviewer: *Yes, I used to play rugby in Japan and it was very difficult.*

IP2: *Actually in (name of team), it is quite ok, but yeah sometimes people want to speak for example it's same for me like when I play sometimes I say it in French and nobody understands, yeah actually I just say again but it's too late.*

Interviewer: *Yes, timing is difficult. In your head, you're thinking it in French and then suddenly you have to speak Japanese or English.*

These results assert that for a player to play rugby at their highest ability is affected by language difficulties, with *listening difficulties* identified as the main cause of communication breakdown. Language difficulties, such as *pronunciation* and *fluency*, will be further investigated in Sections 4.4 and 4.5 in this chapter to ascertain for certain if *listening difficulties* or other language aspects are the catalyst for language difficulties in the rugby context.

To ascertain how coaches might find that their role was affected by language difficulties, Table 4.2 shows that all foreign speaking coaches (N=6) agreed that language difficulties

affect their ability to coach, with 100% choosing *somewhat agree*, *agree*, or *strongly agree* with the statement. Furthermore, over two thirds (66.7%) noted they *strongly agree* in the statement. The majority of NS coaches also concurred with the statement, with 75% (N= 9) choosing *somewhat agree*, *agree*, or *strongly agree* on its effect. Again, Fisher’s exact test was used to identify any statistical significance between foreign and native speaking coaches. No statistical significance was found in the results (P=.407), meaning that both foreign and native speaking coaches believe language difficulties affect their ability to coach rugby.

Table 4.2: Impact on a coach’s ability and language difficulties

	N	Mean	SD	1	2	3	4	5	6	7
FS	6	6.5	0.83	0%	0%	0%	0%	16.7%	16.7%	66.7%
NS	12	5.08	1.67	0%	16.7%	0%	8.3%	25%	33.3%	16.7%

Note: FS= Foreign speaker, NS= Native speaker, 1=Strongly disagree, 2=Disagree, 3=Somewhat disagree, 4=Neither agree or disagree, 5=Somewhat agree, 6=Agree, 7=Strongly agree

In the interviews with five coaches, all concurred with their survey responses. However, unlike the interviewed players who discussed language difficulties in their responses, coaches highlighted several consequences of language difficulties affecting their coaching. The most frequent theme *connection* was discussed by four of the five interviewed coaches. *Connection* is defined in this context as the relationship between members of the community. The theme highlights how communication is critical in rugby and that language plays a direct role in being an effective coach.

The two excerpts below from a foreign speaking (English speaking) coach in Japan (IP6) and a native speaking coach in New Zealand (IP9) detail how the theme *connection* can affect their coaching ability. In the first excerpt, IP6 notes *connection* between coach and player is essential to be an effective coach. However, with language difficulties, coaches are forced to be “*much more directive*” in their coaching. IP9 reinforces the notion that language

difficulties affect a coach's ability to *connect*, noting that without this bond between a player and coach, the progress of both parties is negatively impacted.

IP6: *A coach's ability to coach rugby is hugely impacted by language difficulties. So, I think I am a big believer in effective coaching being all about building understanding and if your language is limited, you end up being much more directive. That's about you telling them stuff all the time rather than you know, gaining information, the back and forth, their ability to question you, finding the right analogies etc. that connect with them or imagery statements.*

IP9: *Yeah, I think for a coaching perspective, I think effective coaches need to form a relationship with the player and sometimes potentially that language barrier could be tricky. You know it could be, for example, you have a player who does a skill a particular way or something a particular way and if you can't connect up to understand the why, the reasoning behind it, so it could impact the progress made with the coach in terms of either a behavior change from the player or understanding why he does it particular behavior. So, I think it [language] is more important on the coaches I think than the player level.*

The results, as shown in Table 4.2 and excerpts by IP6 and IP9, affirm that a coach's ability to coach at the highest level is affected by language difficulties and *connection* is the main consequence from their inability to communicate. Although coaches did not detail language difficulties when discussing this question during the interview, the survey results stress there is an issue. Foreign speaking coaches especially note that language difficulties affect their ability to coach.

When consolidating the results of players and coaches, the results confirm the hypothesis that linguistic difficulties occur in the L2 rugby setting and affect the ability for players to perform at a high level. Both foreign and native speakers indicate that language difficulties occur, meaning this issue is not specific to one setting or country in particular. Therefore, the results of the needs analysis may be applicable to other countries outside of the

researched areas. With the results noting there are linguistic difficulties, the next section details the needs analysis results of where the difficulties might occur most.

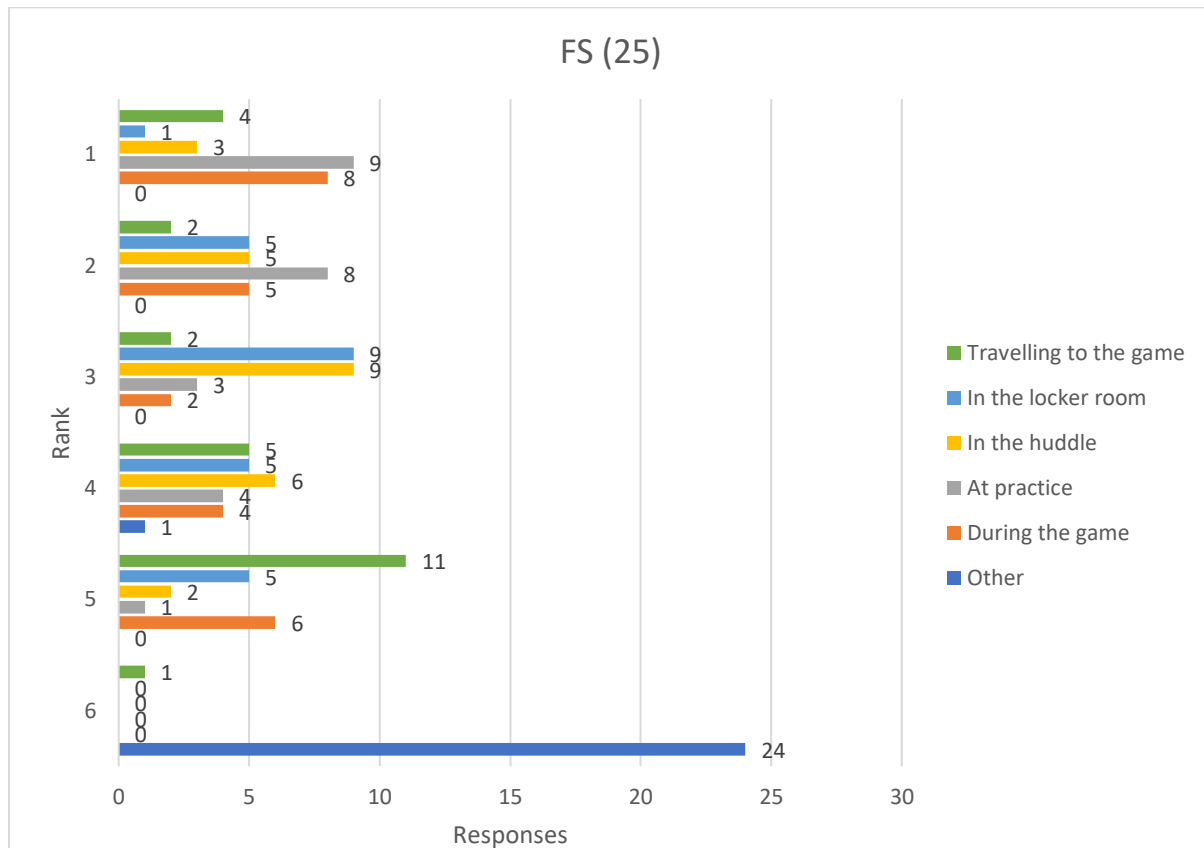
4.3 Where do language difficulties occur?

Similar to many sports, there are several possible times or places where communication takes place, from practice, travelling to a game, to playing the game itself. Understanding where language difficulties tend to arise for players and coaches is important so learning materials can be developed for teams and individuals based on these specific speech events.

Prior to distributing the survey, the hypothesis was that language difficulties would occur the most *during the game* because of how fast-paced the sport is, making fluency and accuracy of the language crucial. The following results present where in rugby these difficulties are occurring, according to participants. Respondents ranked five situations in order of where language difficulties occur the most with rank one, being the highest, to rank six, being the lowest. The five situations were: *Travelling to the game, in the locker room, in the huddle, at practice, and during the game*. Participants also had the option to input an additional situation. First the foreign speakers' results are presented, followed by native speakers.

Overall, Figure 4.1 shows that language difficulties for foreign speakers are widespread throughout the L2 rugby domain. That is, they do not predominantly occur in one situation. The highest ranked situations by the 25 foreign speaking players and coaches surveyed were *at practice* with 9/25 (36%), followed by *during the game* with 8/25 (32%). *At practice* received 20/25 (80%) in rankings 1, 2, and 3, whereas *during the game* only received 15/25 (60%). *Travelling to the game*, with 11/25 (60%) was the lowest ranked situation (rank 5). The 24 *other* responses in rank 6 had additional comments, indicating the five prepared situations were the most common in the rugby setting. Only one *other* response was selected in rank 4, with the comment: *during planning between coaches and managers* recorded.

Figure 4.1: Foreign speakers' responses to the activity: Rank the following situations where language difficulties occur the most between you and a L2 speaker



Note: Rank 1= most - Rank 6=least number of language difficulties

Fisher's exact test was used again to assess the statistical significance between foreign and native speakers' responses for each rank. No statistical significance was found (rank 1 $P=.558$, rank 2 $P=.702$, rank 3 $P=.832$, rank 4 $P=.146$, rank 5 $P=.3$, rank 6 $P=1$). This analysis suggests language difficulties occur in the same situations for both foreign and native speakers.

The main reason for practice being the highest ranked item for language difficulties is that players and coaches spent a large amount of time on this activity. Typically, practice takes place every week for up to six hours in the New Zealand context and 36 hours in the Japanese context. *Time* was the most frequent theme from the interviews, with three of the four foreign speakers in Japan raising this topic. *Time* is defined in this context as the duration in which members are involved in situations in rugby. The following excerpt from a foreign speaking (English speaking) coach in Japan (IP6), details the connection between *at*

practice and *time*. Although not a linguistic need, *culture* was a theme discussed in IP6s excerpt that needs recognition. By understanding both linguistic and cultural difficulties that affect foreign speakers, a more complete evaluation of the needs of rugby players and coaches can be sought.

Interviewer: *The question was rank the following situations where rugby difficulties occurs the most and you said practice is very high.*

IP6: *Especially when you are doing 5 to 6 hour practices a day.*

Interviewer: *How many? You would practice every day?*

IP6: *Six days, twice a day 6 days a week.*

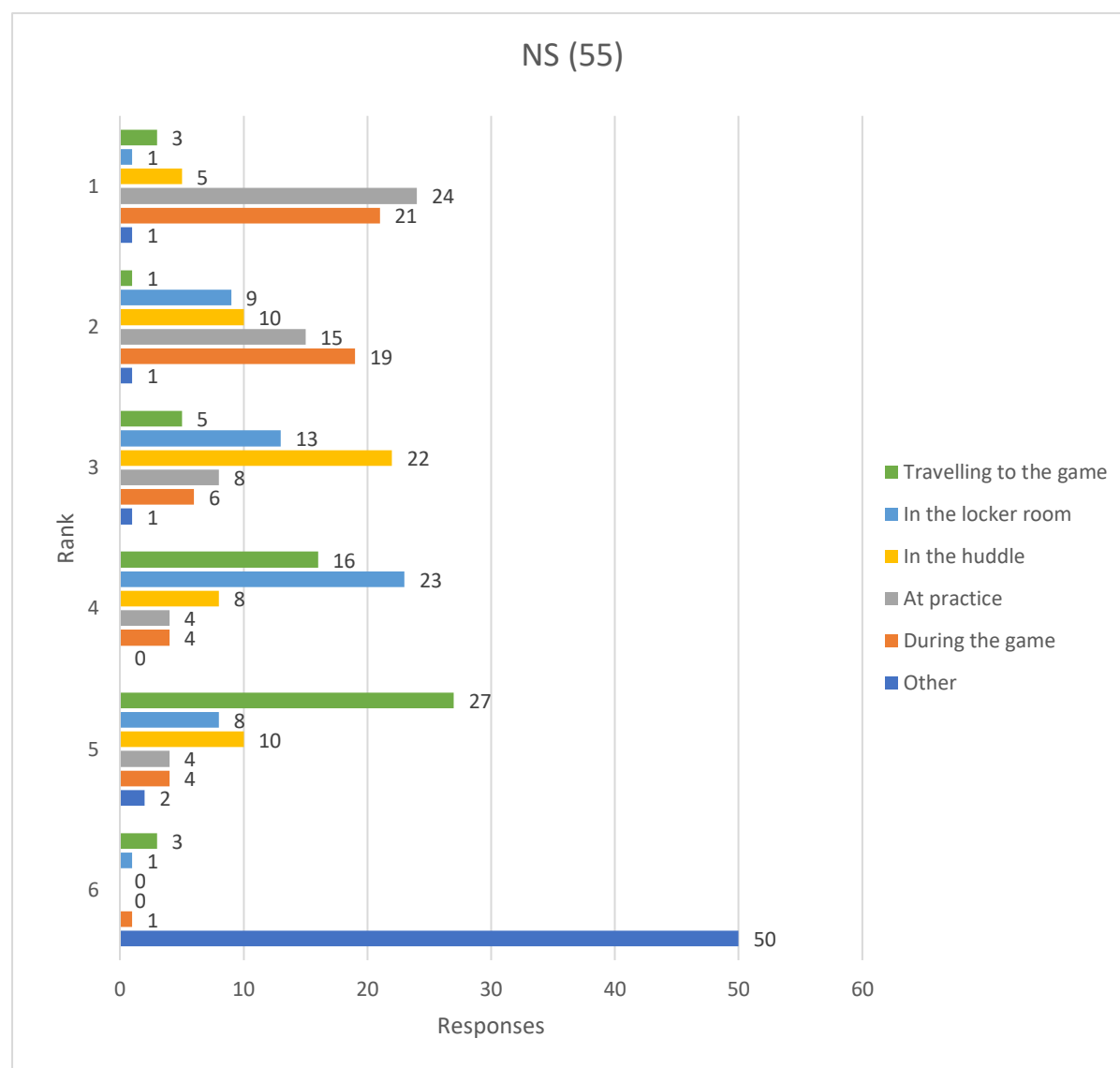
Interviewer: *What is your thought on that?*

IP6: *Crazy! And I came to understand that it was part of the culture. Like in one hand, I would go it is crazy that they are doing this many reps [repetitions]. We are injuring guys unnecessarily. They are not getting any better and now they are practicing a skill poorly because they are too tired to do in properly. But in fact, if they don't work really hard, they can feel underprepared psychologically so like they need to bested (be better than before) themselves. It is just part of their culture.*

Having looked into the results for foreign speakers of English who are playing rugby, I now turn to the results from the native speakers of English (N=55) when they are communicating with non-native speakers of English in a rugby context (Figure 4.2). As with foreign speakers, native speakers ranked *at practice* with 24/55 (43.6%) and *during the game* with 21/55 (38.18%) as the situations where language difficulties occur the most. From the possible 55 responses, *at practice* received 47 (85.45%) in rankings 1, 2, and 3, further supporting the notion that it is the situation where language difficulties occur the most. *During the game* received 46 (83.63%) of the possible 55 responses in rankings 1, 2, and 3. Figure 4.2 also shows *at practice* and *during the game* are overwhelmingly the highest ranked situations, with the next highest (*in the huddle*) with only five (9.09%) responses in rank 1. As with foreign speakers, *travelling to the game* was rated the lowest situation where language difficulties occur, with 27 (49.09%) responses in ranking 5. Fifty of the possible 55 responses for *other* occurred in ranking 6, suggesting that the five provided options were the most

common in the rugby context. Although an additional situations option was given, none were added to the survey by this group.

Figure 4.2: Native speakers' responses to the activity: Rank the following situations where language difficulties occur the most between you and a L2 speaker



Note: Rank 1= most - Rank 6=least number of language difficulties

The results of this section suggest that *at practice* and *during the game* are the two situations where language difficulties occur the most for both foreign and native speakers. As further qualitative analysis confirms, *time* is the main reason why language difficulties occur in these situations. *At practice*, players and coaches are interacting for up to 36 hours a week, building relationships, instructing players on skills, and developing other aspects of

rugby. With such a large amount of *time* spent on communicating, there is a higher possibility for language difficulties to occur between foreign and native speakers. On the contrary, *time* is severely constrained *during the game*, where fluency and accuracy is crucial for comprehension. As *time* is limited, language difficulties persist. From a pedagogical standpoint, introducing different strategies and skills, such as fluency development and meaning-focused input and output would be necessary for learners to become proficient in the two aforementioned situations. This point of interest will be further detailed in Chapter 7.

The results of this section validate the justification to utilise the interactional corpus when creating the spoken rugby corpus (see Section 3.2.3). As both *at practice* and *during the game* are key areas recorded by Wilson (2011), the corpus is ideal as a basis for selecting items for a pedagogical word list of rugby terms (see Chapter 7). With the results showing that language difficulties occur throughout the domain, particularly *at practice* and *during the game*, the following section details the results of who the language difficulties occur with and whether they are speaking or listening.

4.4 Who do speaking and listening difficulties occur with?

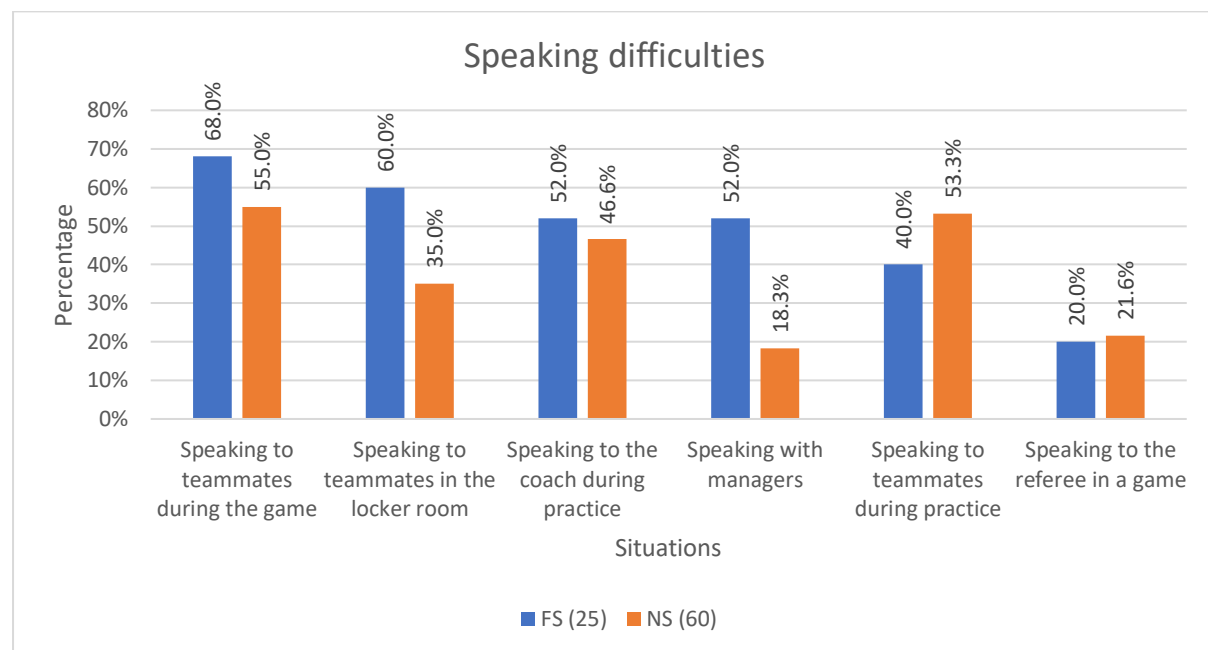
Communication with all members of the rugby community, such as players, coaches, managers, and the referee, is a fundamental aspect of the sport. By ascertaining where and why communication breaks down and with whom, will assist in the creation of a specialised ESP course to meet these needs. This section will first present speaking difficulties, followed by the listening difficulties.

Respondents were asked the multiple-choice question: *Which of the following language difficulties, if any, have you experienced or witnessed with L2 speakers?* In total, 14 possible choices were presented to respondents: Six listening options, such as *listening to the referee in a game*; six speaking options, such as *speaking to the coach during practice*; one *other* for respondents to write additional options; and one *not witnessed* option.

Overall, Figure 4.3 shows foreign speakers report experiencing more speaking difficulties when communicating with native speakers than native speaking respondents do. Foreign

speakers noted they experience more difficulties when speaking in four of the six options. Native speakers report more difficulties with *speaking to teammates during practice* with 53.3% (N=32) and *speaking to the referee during the game* with 21.6% (N=13). *Speaking to teammates during the game* was the highest rated by both foreign and native speakers, 68% (N=17) of foreign speakers and 55% (N=33) of native speakers noting they experienced difficulties. The lowest rated for both foreign and native speakers was *speaking to the referee in a game* with 20% (N=5) and 21.6% (N=13) noting speaking difficulties. The most surprising result is the disparity that foreign and native speakers experience when speaking to managers. Fifty-two percent of foreign speakers (N=13) reported speaking difficulties, compared to only 18.3% (N=11) of native speakers.

Figure 4.3: Speaking difficulties



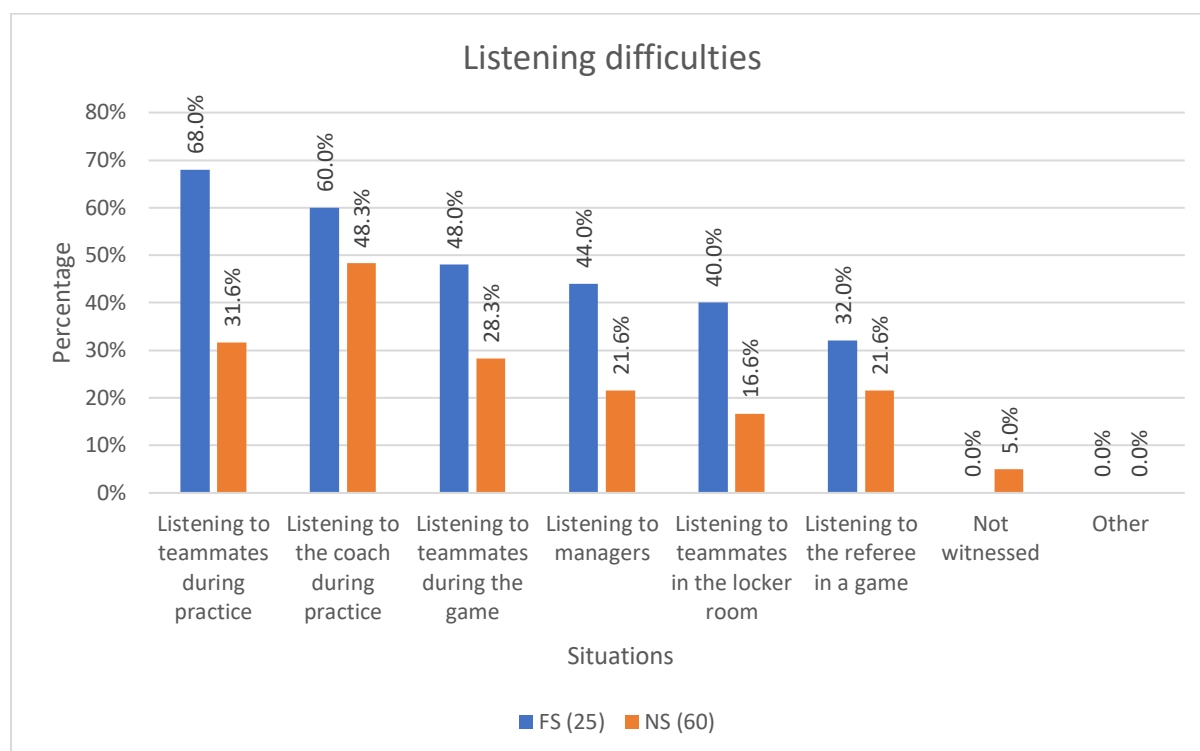
Fisher's exact test was run to assess statistical significance between foreign and native speakers' responses for each option. *Speaking to teammates in the locker room* ($P=.053$) and *speaking with managers* ($P=.003$) were significantly different. With this analysis, along with the results as shown in Figure 4.4, foreign speakers experience more speaking difficulties than native speakers. No statistical significance was found for the four remaining options (*speaking to teammates during the game* $P=.336$, *speaking to teammates during*

practice $P=.342$, *speaking to the referee in a game* $P=1$, *speaking to the coach during practice* $P=.812$).

To ascertain who listening difficulties occur with, Figure 4.4 presents the survey findings. Similar to the results in Figure 4.3, in all six options, foreign speakers note experiencing listening difficulties more than native speakers. *Listening to teammates during practice* is the highest rated for foreign speakers, with 68% ($N=17$) experiencing listening difficulties. For native speakers, *listening to the coach during practice* is the highest rated, with 48.3% ($N=29$). The lowest rated for foreign speakers is *listening to the referee in a game* with 32% ($N=8$), whereas native speakers rated *listening to teammates in the locker room* with 16.6% ($N=10$) as the lowest. The largest disparity between foreign and native speakers was *listening to teammates during practice*. Sixty-eight percent ($N=17$) of foreign speakers experienced listening difficulties when listening to teammates during practice, whereas only 31.6% ($N=19$) native speakers noted as such.

Fisher's exact test showed *listening to teammates in the locker room* ($P=.027$) and *listening to teammates during practice* ($P=.003$) were statistically significant. This result, along with the results in Figure 4.2, show foreign speakers experience listening difficulties with teammates in these situations more than native speakers. No statistical significance was found in the five remaining options (*listening to teammates during the game* $P=.131$, *listening to the referee in a game* $P=.408$, *listening to the coach during practice* $P=.352$, *other* $P=0$, *not witnessed* $P=.552$).

Figure 4.4: Listening difficulties



From Figures 4.5 and 4.6 in this section, three important results are identified. First, speaking and listening difficulties occur most with teammates and coaches and not with the referee or managers. Due to leadership roles in rugby, only the captain can talk with the referee and therefore, players do not typically communicate with match officials. The following two excerpts from a foreign speaking (Japanese speaking) player in New Zealand (IP7) and a foreign speaking (French speaking) player in Japan (IP2) illustrate this leadership and communicative role of the captain in both rugby settings.

Interviewer: *Ok. So not many problems when speaking or listening to the referee?*

IP7: *Not referee cause most of the time talk with captain so not me.*

Interviewer: *Ah true. So usually I think for me, I always think the halfback is very loud, always talking to the ref like “ref ref ref!”.*

IP7: *Yeah it is not talk, just shouting. And no referee likes to have conversation, just shouting.*

Interviewer: *Have you had any difficulties communicating with the referee?*

IP2: *Actually, I no, I have never experienced that. Actually, the referee here wants to only speak to the captains so we did this. We don't speak directly to the referee.*

Second, both foreign and native speakers experience difficulties when communicating (speaking and listening) to the coach during practice. Fifty-two percent (N=13) of foreign speakers and 46.7% (N=28) of native speakers experience speaking difficulties with the coach and 60% (N=15) of foreign speakers and 48.3% (N=29) of native speakers experience listening difficulties with the coach. *Time* and *connection* are the main reasons why communication difficulties occur with the coach. As shown in Section 4.3, up to 36 hours a week are spent at practice. In addition, as noted by IP6 and IP9 in Section 4.2, players and coaches are constantly communicating, building a *connection*, to ultimately help players improve in the sport.

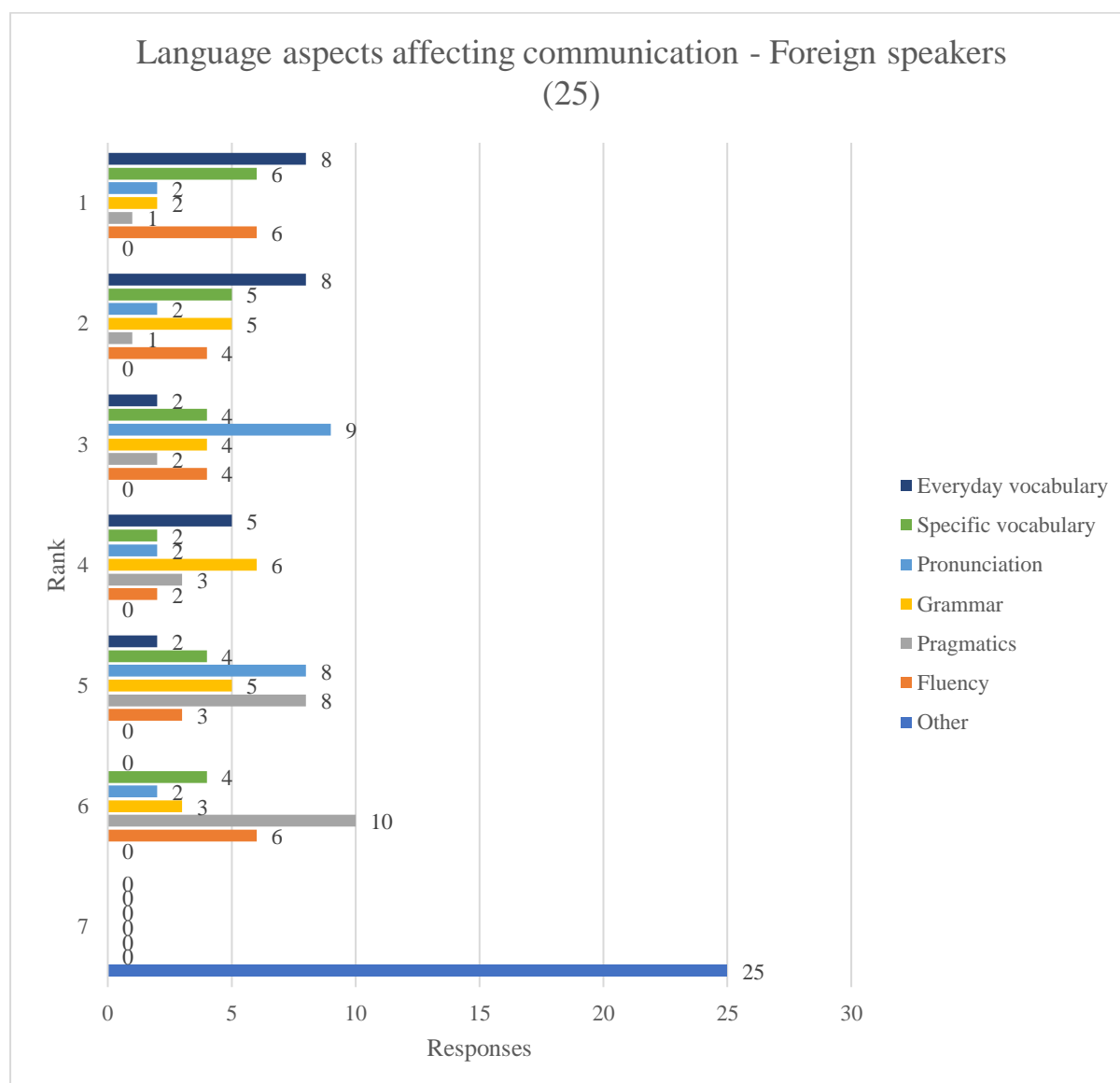
Third, speaking difficulties occur during the game, whereas listening difficulties occur most at practice. Figure 4.4 showed *at practice* and *during the game* are the two situations where language difficulties occur the most. From the results in this section, it is clear speaking difficulties are the main reason why language difficulties occur *during the game* and listening difficulties affect language *at practice*. The following section details the results of what specific language aspects are prompting these language difficulties.

4.5 Language aspects affecting communication

Language aspects highlighted in the survey as being those that can affect communication include *everyday vocabulary*, *specific vocabulary (slang/rugby terms)* (see Chapter 5), *pronunciation*, *grammar*, *pragmatics (gestures/turn-taking/cultural aspects)*, and *fluency*. Survey respondents selected these aspects from the ranking task by answering: *The following language aspects might cause language difficulties when communicating (listening and speaking) about rugby with non-English speakers. In your experience, please rank them in order of their effect on communication.* In addition to the six options above, respondents also had an 'other' option and a space to write in their own response.

Prior to administering the survey, it was hypothesised *specific vocabulary* would be the main language aspect affecting communication. However, Figure 4.5 shows that not one language aspect predominantly affects communication, as all six are an issue in the L2 rugby setting for foreign speakers. *Everyday vocabulary* with eight (32%) responses, followed by *specific vocabulary* and *fluency*, both with 6 (24%) responses were the highest ranked language aspects affecting communication. From the possible 25 responses, *everyday vocabulary* received 18 (72%) in rankings 1, 2, and 3, *specific vocabulary* received 15 (60%), and *fluency* received 14 (56%) of the possible 25 responses in the first three rankings. *Pragmatics* received 10 (40%) of the 25 responses in rank 5 and was ranked the language aspect least affecting communication. All 25 respondents selected *other* as the lowest rank (rank 7), meaning the six provided options were the main language aspects affecting communication.

Figure 4.5: Foreign speakers' (25) responses to language aspects affecting communication

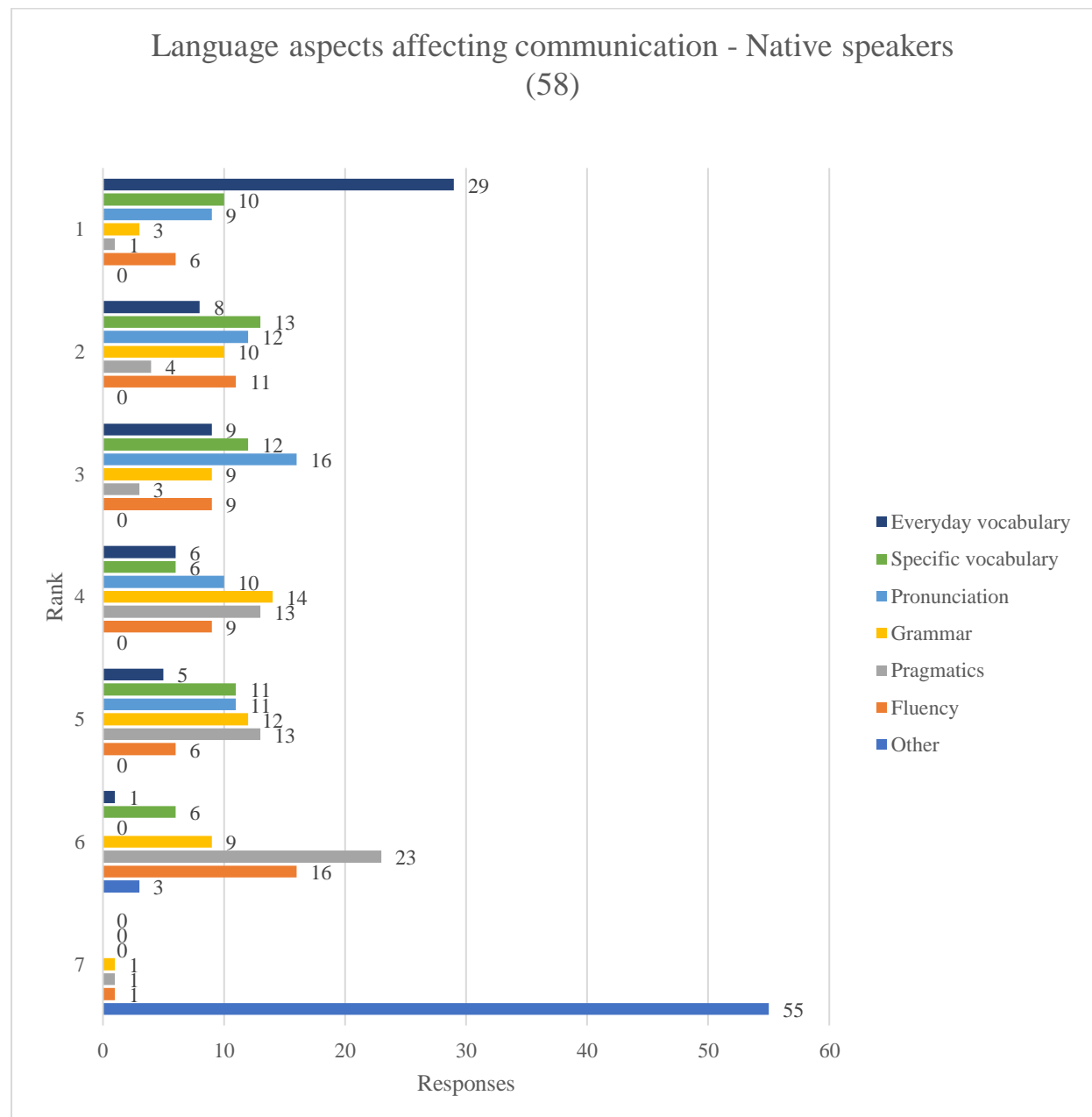


Note: Rank 1= most affect - Rank 7= least affect

Having looked into the results for foreign speakers, I now turn to the results of what language aspects affect communication for native speakers (Figure 4.6). The results between the two groups are similar, with all six language aspects affecting communication. As with foreign speakers, native speakers ranked *everyday vocabulary* with 29 (50%) responses, followed by *specific vocabulary* with 10 (17.2%) responses as the two most identified aspects affecting communication. From the possible 58 responses, *everyday vocabulary* received 46 (79.3%) responses in rankings 1, 2, and 3. *Pragmatics* with 23 (39.6%) of the possible 58 responses in rank 5 is again the lowest ranked language aspect.

These results concur with foreign speakers, indicating pragmatics is not affecting communication according to these respondents.

Figure 4.6: Native speakers' (58) responses to language aspects affecting communication



Note: Rank 1= most affect - Rank 7= least affect

Fisher's exact test was used to assess statistical significance between foreign and native speakers' responses for each rank. No statistical significance was found (rank 1 $P=.306$, rank 2 $P=.436$, rank 3 $P=.903$, rank 4 $P=.652$, rank 5 $P=.944$, rank 6 $P=.43$, rank 7 $P=1$). These

results conclude the rankings in Figure 4.3 and 4.6 are consistent in that all six language aspects affect communication.

There were two frequent themes pertaining to this issue. *Everyday / specific vocabulary* is defined in this context as words used and known in general (everyday) and rugby discourse (specific). Further, *general language difficulties* is defined in this context as non-specific language aspects affecting communication in rugby discourse, were the two most frequent themes pertaining to this issue. *General language difficulties* was a theme noted by three participants during the interview. However, even with probing by the interviewer, these participants were unable to specify beyond general communication problems as to what language aspects in particular affect communication. The following excerpt from a native speaker (English speaking) in New Zealand (IP11) details the exchange between the interviewer and participant in which *general language difficulties* were discussed.

Interviewer: *Usually what is the main language problem that they (foreign speaking players) have a problem with?*

IP11: *I supposed the biggest problem is language. Just not knowing.*

Interviewer: *So, for specific aspects of language, do you think it is vocabulary, grammar or other aspects they are having problems with?*

IP11: *Nah, not so much the pronunciation, or grammar. it's more just the language barrier. It is not understanding English and us not understanding their language.*

With the needs analysis relying on data solely from domain experts, gathering information on detailed linguistic aspects such as presented in this section was difficult. Long (2005a) notes most domain experts prove unreliable sources when discussing language. Therefore, future research is needed, adding an additional data collection method such as observations, to combine data domain experts and language proficiency experts to ascertain more specific findings in the linguistic needs analysis.

Quantitative data from the survey justifies the decision to investigate the lexical profile and vocabulary load of spoken rugby discourse (see Section 3.2.1). As shown in Tables 4.5 and

4.6 above, both foreign and native speakers reported *everyday vocabulary* and *specific vocabulary* as the main language aspects affecting communication. The results of the corpus analysis and subsequent creation of the single and multiword unit word lists as presented in Chapter 6 are an integral component when designing a specific rugby curriculum. With the results concluding that an array of language aspects is affecting communication, the following section details what strategies foreign and native speakers use when language difficulties arise.

4.6 Communication breakdown strategies used in the rugby context

As with other spoken settings, strategies are employed when there is a breakdown in communication. By understanding what strategies are used in the rugby setting by foreign and native speakers, a curriculum that either improves already used strategies, or introduces more applicable strategies can be designed. The hypothesis was strategies, such as *perform (mime) the action*, would be the most used strategy by native speakers and *repeat the sentence* would be most used by foreign speakers. The following results present what strategies are used by foreign and native speakers in rugby. Respondents selected all strategies they used from a list of eleven, such as *speak more slowly*, *say 'I don't understand'*, and *speak in their language*. An *other* option was presented but not selected by respondents and therefore, was not presented in the results. To ascertain how each strategy is used in rugby, the respondents chose from three possible options: *get them (other people) to*, *I usually*, or *both*. For ease of reporting the results, the three options are presented in separate figures to show both foreign and native speakers' responses, respectively.

Overall, Figure 4.7 shows that both foreign and native speakers rarely *get the other person to use strategies*, with an average of only 14% of foreign speakers and 12.33% of native speakers selecting from a total of 10 strategies. *Speak more slowly* was chosen by 28% (N=7) of foreign speakers and 30% (N=18) of native speakers as the strategy that respondents *get the other person to use* the most. *Say 'I don't understand'* with only 8% (N=2) of foreign speakers and 5% (N=3) of native speakers was the least chosen strategy that respondents *get the other person to use* when communication breaks down. Fisher's exact test was performed and the results shows no statistical significance between foreign and native

speakers responses (*repeat the sentence* P=1, *speak more slowly* P=1, *speak in simple English* P=.749, *perform the action* P=1, *ask someone to assist* P=.512, *say 'I don't understand* P=.628, *indicate I do not understand* P=.719, *speak in their language* P=.226, *use more gestures* P=.414, *ask an interpreter* P=1).

As the results show strategies in the rugby setting are not solely used by the other person, I will now look at the results to understand if foreign and native speakers take it upon themselves to use the strategies themselves.

Figure 4.7: Foreign speakers' (25) and Native speakers' (60) responses to communication strategies – I get them to use the strategies

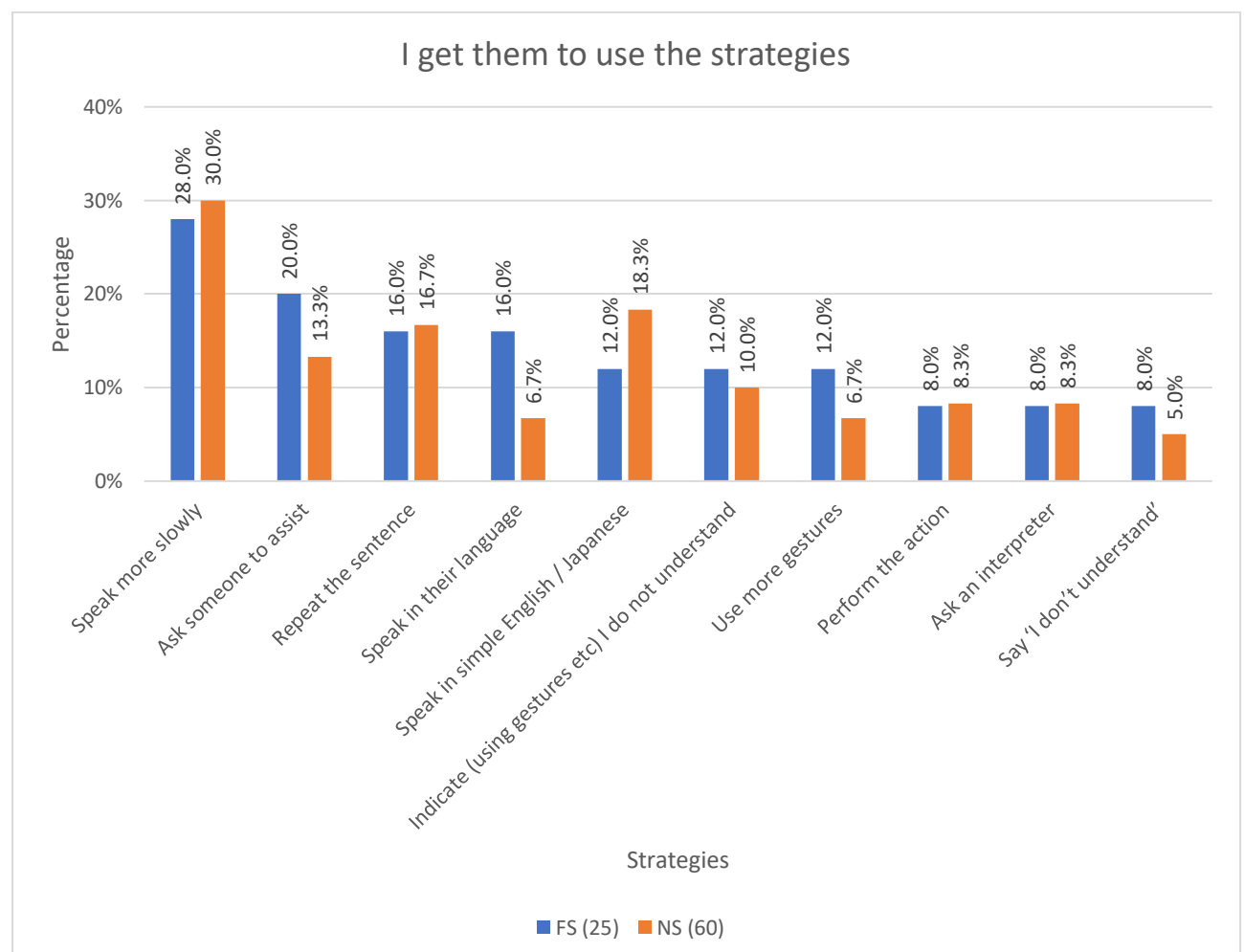


Figure 4.8 shows foreign speakers take responsibility when communication breakdown occurs by using strategies to help overcome their difficulties. An average of 33.6% of foreign speakers used a total of ten strategies, compared with 12.33% of native speakers. Furthermore, foreign speakers use multiple strategies, with eight of the ten strategies used more frequently by foreign speakers than native speakers. *Repeat the sentence* with 16.7% (N=10) and *speak more slowly* with 30% (N=18) were the two strategies native speakers used more than foreign speakers. *Say 'I don't understand'* with 60% (N=15) was the strategy most used by foreign speakers.

Contrastingly, *speak more slowly* with 30% (N=18) was the most used strategy by native speakers. The largest disparity between foreign and native speakers is with *say 'I don't understand'*, with 60% (N=15) of foreign speakers and 55% (N=3) of native speakers. This result suggests foreign speakers express their difficulties more than native speakers when they do not understand, which in turn explains why *speak more slowly* with 30% (N=18) is the most used strategy by native speakers. Fisher's exact test concurs with the descriptive statistics, showing the strategies *ask someone to assist* ($P=.004$), *say 'I don't understand'* ($P=.00001$), *indicate I do not understand* ($P=.0002$), *speak in their language* ($P=.0046$), *use more gestures* ($P=.0046$), and *ask an interpreter* ($P=.0011$) are statistically significant between foreign and native speakers. These results suggest foreign speakers use these strategies in the rugby domain more than native speakers. There was no statistical significance between foreign and native speakers for the remaining four strategies (*repeat the sentence* $P=.747$, *speak more slowly* $P=.101$, *speak in simple English* $P=.252$, *perform the action* $P=.15$). Therefore, the results show foreign speakers solely use more strategies when communication breaks down. I will now look at the results to understand if a combination of getting the other person to use strategies and using the strategies themselves is occurring in the rugby setting.

Figure 4.8: Foreign speakers' (25) and Native speakers' (60) responses to communication strategies – I usually use the strategies

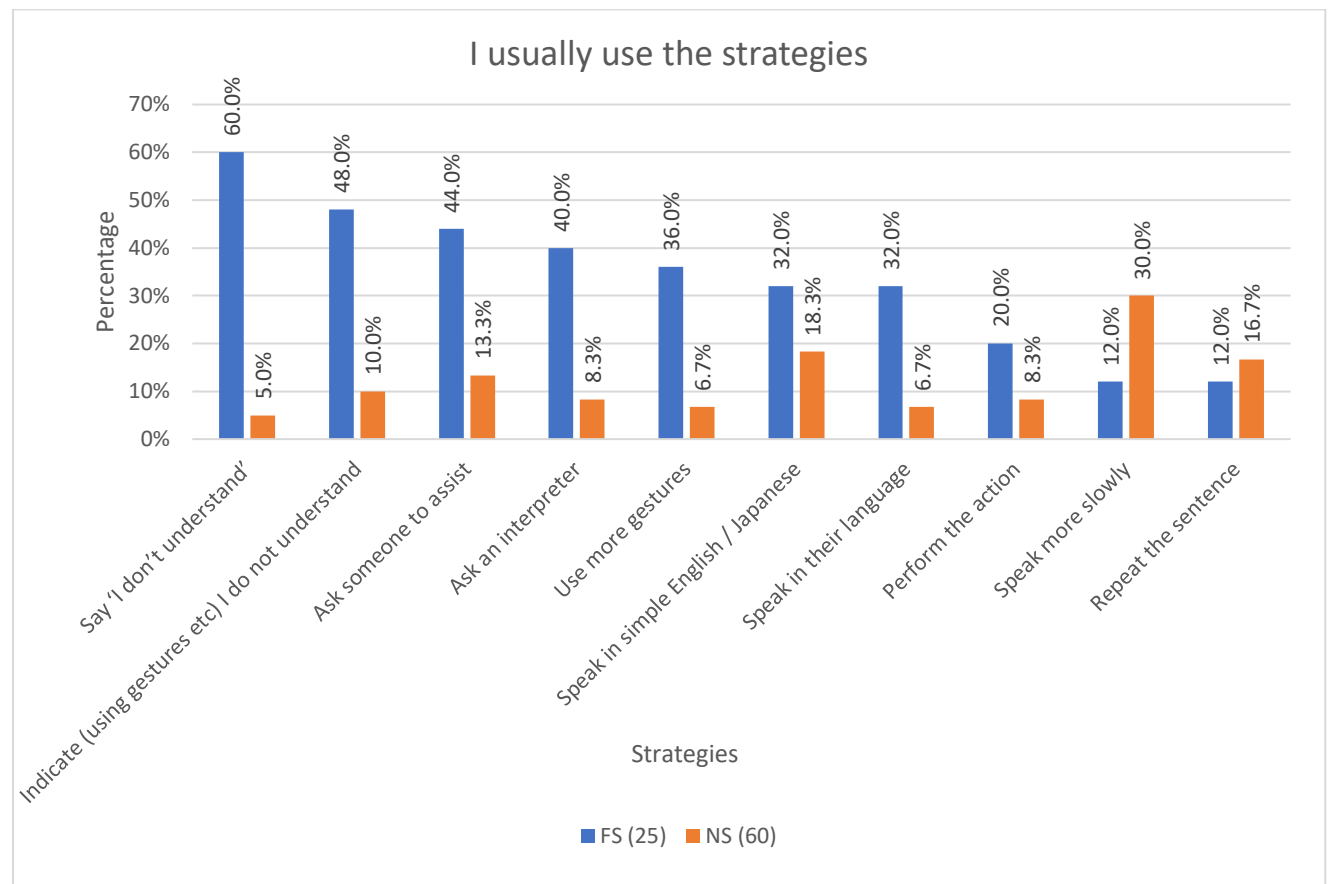
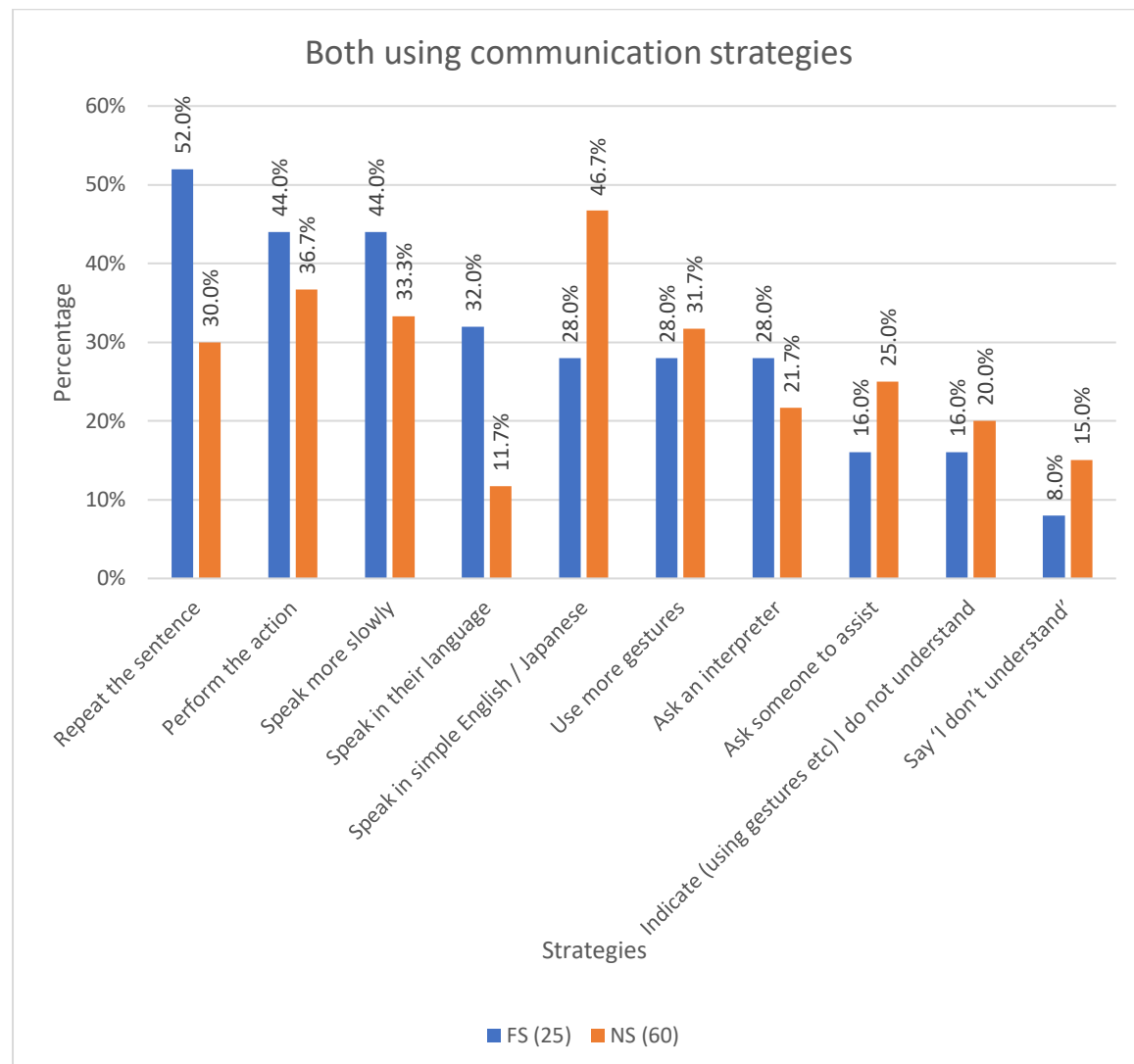


Figure 4.9 shows both foreign speakers, with an average of 29.6%, and native speakers, with 27.18%, use a combination of *getting the other person to use a strategy* and *using a strategy themselves* when communication breakdown occurs in the rugby setting. *Repeat the sentence* with 52% (N=13) was the highest rated strategy for foreign speakers, whereas *speak in simple English/Japanese* with 46.7% (N=28) was the highest rated strategy for native speakers. Conversely, *say 'I don't understand'* with 8% (N=2) for foreign speakers and *speaking in their language* with 11.7% (N=7) for native speakers were the lowest rated strategies. Fisher's exact test showed only *speak in their language* ($P=.033$) was statistically significant, meaning foreign speakers will speak in the L2 and get the other person to speak in the L2. The results for the other nine strategies were not statistically significant (*repeat the sentence* $P=.083$, *speak more slowly* $P=.459$, *speak in simple English/Japanese* $P=.148$, *perform the action* $P=.627$, *ask someone to assist* $P=.568$, *say 'I don't understand'* $P=.495$, *indicate I do not understand* $P=.769$, *use more gestures* $P=.801$, *ask an interpreter* $P=.58$).

Figure 4.9: Foreign speakers' (25) and Native speakers' (60) responses to communication strategies – both using communication strategies



As with Figure 4.9, using a combination of *getting the other person to use strategies* and *using multiple strategies themselves* is also highlighted in the semi-structured interviews. The following excerpt from a foreign speaking (English speaking) coach in Japan (IP6) details how multiple strategies were used, such as *ask someone to assist*, *use more gestures*, and *ask an interpreter* in the L2 rugby setting. IP6 explains how these multiple strategies were needed depending on the situation, such as *ask someone to assist* to relay information to L2 players and using *ask an interpreter* when suspected important information was being discussed in meetings. An interesting point in this excerpt is IP6's view on using an online translation app to assist during meetings. IP6 points out its lack of flexibility when multiple people are talking simultaneously and can only translate effectively in certain situations

(such as a meeting). However, during training, more guessing from context was needed. This finding indicates multiple strategies are needed for both coaches and players according to the situation and who they are conversing with.

IP6: *I had more success once I identified the Japanese players who actually understood English and then found a way to communicate with them (native speaking players). They would relay what I was saying, but it was unlikely they would talk back to me in English. But no, we got by, by mime.*

Interviewer: Gestures yeah, pointing. And you said you had language classroom and you had Japanese language teaching videos podcasts?

IP6: *And good old Google translate, which would often lead me astray. Yeah so the way it would play out for me is I would arrive pre-training to prepare a session or lock in a session. And we would be in the coaches room and obviously they would be talking in Japanese amongst themselves and if I picked up on something that I thought I needed to know about, I had to quickly interrupt and ask the translator “oh is this happening” or he was directed to tell me something he would but obviously the difficulty was I missed a whole lot what was going on. I was not able to keep up. I tried to do things like, and they were fine with it as well, was I would drop my phone in the middle of the table and try and use google translate as much as I could. But it was a pretty poor tool when they are talking fast like that. There are multiple people in the room and then during training I might say, you know, the other coaches might say something to the players a lot of it I was trying to assume what they were trying to communicate so they didn’t have to repeat their points or counter anything they had said and then you get to game day and obviously, there would be the same thing happening during warm up preparation and then a halftime.*

The following excerpt from a native speaking (English speaking) coach in New Zealand (IP11) also notes multiple strategies are used in the rugby setting when communicating with L2 speakers. Such strategies are: *Perform the action* and *ask an interpreter*. IP11 states that many high-level rugby players will lip read during the game instead of speaking. However,

IP11 also notes how L2 speakers are unable to lip read and need further assistance. IP11's excerpt highlights that without being able to effectively use the strategy of lip reading, L2 players will be at a disadvantage. IP11 also refers to players using a mobile translation app, similar to IP6. However, as IP11 is a coach in the L1 setting, IP11 is able to spend time on using the app, unlike IP6 who was unsuccessful in using this strategy as he was in a situation out of his control.

IP11: *In the game, like if you are a good enough footballer (rugby player), you can kind of read and a lot of guys lip read, try and lip read to see what they are talking about. But then, there are certain guys that can't really speak English, we will just get a clip board and just show them or just write pictures, especially with technology now. One of the things we will have is a translator phone app and we will just translate. Put it in English and translate it and then they will get a fair understanding what we are talking about.*

The results of this section show multiple strategies are used by both foreign and native speakers in rugby. The three Figures (4.7, 4.8, and 4.9) in this section show there is not one specific strategy that is predominantly used in the rugby setting. Instead, the survey respondents noted they use a combination of *getting the other person to use multiple strategies* and *use the strategies themselves*. In addition, two excerpts from the semi-structured interviews highlight how strategies are used according to the different situations, such as *ask an interpreter* during practice and using an app in meetings.

4.7 Chapter summary

In summary, this chapter presented the results of five items from the needs analysis which focused on general language difficulties in the rugby context. The results used findings from the two data collection methods, survey and semi-structured interviews, in the needs analysis to answer two main research questions as stated in Section 4.1. Overall, the results in this chapter have identified key linguistic areas where rugby players and coaches need assistance. The first item from the needs analysis showed that language difficulties are occurring in the rugby context and are affecting both players' and coaches' ability to perform at their highest level. From the survey respondents, 66.4% (N=65) noted they

somewhat agree, agree, or strongly agree that a player's ability is affected by language difficulties. For coaches, 83.3% (N=15) noted language difficulties affect their ability to coach. In addition, *connection* between them and the player is essential to be an effective coach. However, with language difficulties occurring for both foreign and native speaking coaches, this *connection* is negatively impacted on.

The second item of the needs analysis showed where language difficulties occur the most for both foreign and native speakers. *At practice* received 33 (41.25%) of the total 80 responses, ranking as the most frequent place language difficulties occur. *During the game* received 29 (36.25%) of the 80 responses. *Time* was the main reason language difficulties occur most in the two situations, as the qualitative data showed players and coaches spend up to 36 hours *at practice*, whereas *during the game*, *time* is severely constrained by the speed of plays.

The third item showed three important results relating to with whom language difficulties occur. First, language difficulties occur most with *teammates* and *coaches*. Second, both foreign and native speakers experience language difficulties when communicating (listening and speaking) with the coach during practice. Third, speaking difficulties occur most *during the game*, whereas listening difficulties occur most *at practice*.

The fourth item showed both foreign and native speakers believe *vocabulary* is the main language aspect affecting communication. Eight (32%) foreign speakers and 29 (50%) native speakers ranked *everyday vocabulary* as affecting communication the most. *Specific vocabulary* was the second ranked language aspect, receiving 6 (24%) foreign speakers and 10 (17.2%) native speakers' responses in rank one. In total, vocabulary accounted for 53 (63.85%) of the total selections in rank one.

The final item presented in the chapter showed both foreign and native speakers use multiple strategies when communication breakdown occurs. Foreign speakers take it upon themselves to use strategies, such as *say 'I don't understand'* more than native speakers. Native speakers use the strategies *speak more slowly* and *speak in simple English/Japanese* themselves and get the other person to use these strategies.

In Chapter 7, the findings of this chapter, along with the results presented in the following chapter will be drawn together and discussed in detail for the purpose of determining how to solve the identified linguistic needs for rugby players and coaches. The next chapter continues presenting results from the needs analysis, focusing on rugby language, the acquisition, and possible difficulties that arise with specific rugby vocabulary.

Chapter 5 Needs analysis results: Rugby language

5.1 Introduction

In the previous chapter, the results of five items on general language difficulties rugby players and coaches in New Zealand and Japan face were discussed. This chapter presents the findings of six items from the needs analysis that focused on the theme of rugby language. These items investigated the acquisition and possible difficulties that arise with specific vocabulary. Employing the same structure as the previous chapter, the following sections present the findings one by one, with each item accompanied by data from the survey and semi-structured interviews. The items are reported in chronological order so as the topics flow in the same way as they survey (see Appendix 1 for an example). Each section of this chapter answers the following key questions that were raised in the data analysis:

- What are the differences in rugby language? (Section 5.2)
- Is knowledge of rugby language important in the rugby setting? (Section 5.3)
- In what situations does rugby language occur (Section 5.4)
- Who do speaking and listening difficulties due to rugby language occur with? (Section 5.5)
- How is rugby language acquired? (Section 5.6)
- What are effective methods to acquire rugby language? (Section 5.7)

The overall aim of this, and the previous chapter, is to highlight the linguistic needs of foreign players and coaches of rugby in New Zealand and Japan.

5.2 Differences in rugby language

Rugby language has variations which are unique to each playing country, such as positional names and pronunciation of certain words (Kuiper & Lewis, 2013). Understanding what these differences are and whether players and coaches are aware of the differences will assist in creating pedagogical materials for the language classroom and in finding out more about the learning burden for players and coaches. The following results present the differences between respondent's rugby language in their L1 and a different language (e.g. *forward pass* in New Zealand and *throw forward* in Japanese). In the survey, respondents were presented with the following multiple-choice question: *In what ways does*

English/Japanese rugby language differ from another language? They asked to select from seven options:

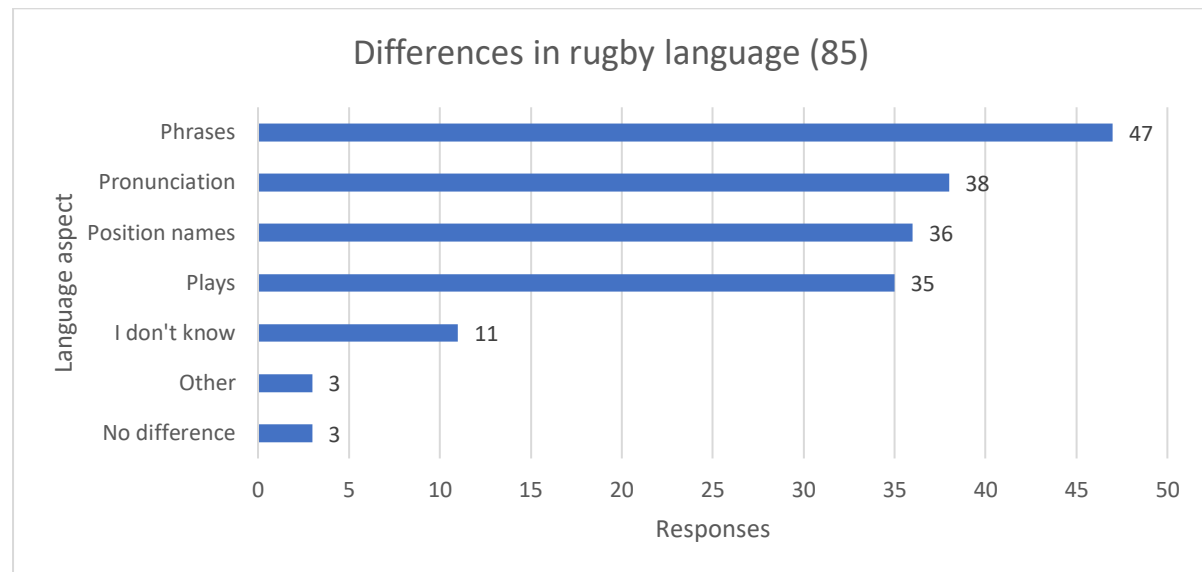
1. *Position names* (e.g. *stand-off* in England is *first-five* in New Zealand),
2. *Plays* (e.g. *cross* in Japanese is *cut* in English),
3. *Pronunciation* (e.g. *scrum* is pronounced *sukuramu* スクラム in Japanese).
4. *Phrases* (e.g. *forward pass* in English is *throw forward* in Japanese).
5. *Other* (where they could add another category or example of their choosing)
6. *No difference between L1 and other language* (e.g. *knock on* is the same in English and Japanese)
7. *I don't know.*

The goal of this survey item was to ascertain what language differences occur in rugby, regardless of location. Therefore, the responses from both the foreign speakers and native speakers are tallied together (Figure 5.1). This was important because it allowed a broader view of differences in the language, which can then be analysed and be explicitly instructed in specialised ESP courses. It was hypothesised that pronunciation would be the main differences due to the researcher's experience playing in both Japan and New Zealand.

Figure 5.1 shows that there are differences in all language aspects (*positions, plays, pronunciation, and phrases*). *Phrases* were rated as the main difference in rugby language, chosen by 55.3% (N=47) of the respondents. Three examples for differences in *phrases* were: *forward pass* = *throw forward*, *clean out* = *over*, and *over the top* = *off the feet*. The second highest rated difference within rugby language was *pronunciation* at 44.7% (N=38) responses. Unfortunately, no examples were provided in the comments. The third highest rated difference was *position names* with 42.4% (N=36) responses. Differences which were noted in the comments included: *first-five* (in New Zealand) = *stand-off* (in Japan), *stand-off* (SO) (in Japan) = *fly half* (in England), *fly half* (in England) = *SO* (in Japan), *center* (in New Zealand) = *CTB* (in Japan), *wing* (in New Zealand) = *WTB* (in Japan). The fourth rated difference in rugby language was *plays* with 41.2% (N=35). The following examples were provided by respondents: *skip pass* (in Japan) = *cut pass* (in New Zealand), *wrap* (in New Zealand) = *loop* (in Japan), *cut* (in New Zealand) = *cross* (in Japan), *high punt* (in Japan) = *up*

and under (in New Zealand). Although *Other* received three (3.5%) responses, no comments were provided. Finally, 14 (16.5%) respondents noted either *no difference* or *I don't know*, indicating that the majority of players and coaches were aware of some linguistic differences.

Figure 5.1: Foreign and Native speakers' responses (N=85) to the question: In what ways does English/Japanese rugby language differ from another language?



To gain a qualitative perspective of linguistic needs as they pertain to rugby language, data from the 12 semi-structured interviews will also be presented. While broad, *personal experience* was the most frequent theme that arose from the interviews. *Personal experience* is defined here as a situation in which communication is affected by differences in rugby language. This theme is purposefully broad as while all 12 interviewed participants described a *personal experience*, each commented on different language aspects and different situations. Such varying *experiences* indicate that communication difficulties caused by these differences in rugby languages are occurring throughout the rugby domain. A more in-depth, ethnographic study could highlight connections and this is further discussed in Chapter 8. The following three excerpts provide examples of how both foreign and native speaking players and coaches have *experienced* language difficulties due to different rugby language from their L1. The first excerpt from a foreign speaking (English speaking) coach in Japan (IP6) describes the difficulty he experienced when trying to select a word that had a similar meaning to that of his L1.

To provide some context to this excerpt, in New Zealand, the metaphors 'bullseye', 'double 1', and 'double 20' are used by coaches to describe how high or low a players' height should be when pushing in a scrum ('scrummaging'). The optimum height is being bent over at a 90-degree angle, or at 'bullseye'. Any higher ('double 20') or lower ('double 1') will make scrummaging difficult.

IP6: *You know in coaching, imagery words are very important. So, like a classic metaphor I have always tried to find, so one of the key words for scrummaging here and it has come from (name). So, everybody else has picked up on it is when you are trying to articulate the need for people to power through at one level, they talk about 'bullseye' and straight away a New Zealand player or an English speaker would be able to articulate what that meant and, in fact, they would talk about like "I don't want you aimed at double 1 cause if you do you are going straight down. Or I don't want you pointing up at double 20 because you are going to get pushed over backwards. I want you right at bullseye" and then people are ok. But finding something, you know the translator and I talked about that a lot actually 'cause your words are real and I think we sealed on... Yeah we would use "masugu" (straight) you know like straight, but that is not the same (meaning as 'bullseye'). It is that ('masugu') versus 'straight and same height (and) stay level'.*

The second excerpt from a foreign speaking (French speaking) player in Japan (IP2), describes differences in *pronunciation* in rugby language and their effect on comprehension. Specifically, IP2 notes how the contraction of phrases in Japanese have affected comprehension in rugby.

Interviewer: *You remarked before that Japanese language and English rugby language pronunciation and phrases are quite different. So like scrum and ruck is katakana English.*

IP2: *Yes, yes, yes. That is why when you listen to referees, yeah it could be, yeah you know the Japanese kind of like 'remokon' and like that, the first*

time you heard this you are like 'hey, what the fuck are you saying, I don't understand'. But yeah, they just cut words and put them together so I heard something like this in rugby but I don't remember what word. Sometimes you know they bring the English word in, they just change it a bit of course the pronunciation after that, and yeah after that you are like 'eh, I don't understand what you are saying. Ah you are saying remote controller'.

Although IP2 did not provide examples of contractions in rugby language, having experienced the same difficulties playing rugby in a Japanese setting myself, I concur with the statement. Examples of contracted phrases and plays in Japanese I have experienced are: *High punt* = *Highpun* (ハイパン), *Throw forward* = *throwfo* (スロフォ). Not only is the phrase Japanese and does not occur in English, it is contracted and pronounced differently. Therefore, as IP2 explains, it is difficult for foreign speakers to understand.

The final excerpt from a native speaking coach in New Zealand (IP9) highlights differences between two L1 speaking rugby settings (England and New Zealand) and how code switching between the two languages is difficult.

IP9: *There are certain words that, there are two words that stick in my mind that I have always had problems with that I still use today: 'Gumshield' and 'studs'. Those two words they are still in my vocabulary now and I will tell every team that I coach, if I say 'gumshield', I mean 'mouthguard', and I will say it cause when I am in the flow, it comes out naturally. And if I say 'studs' I mean 'sprigs'. and you normally can tell when you have said something because you get blank look in people's eyes like 'what did he just say?'.*

The results of this section show that differences in rugby language occur in all language aspects, both in L1 and L2 rugby settings. From the three excerpts above, participants note how differences in rugby language affect communication, both for the speaker and listeners. With the results noting there are differences in rugby language and the qualitative

data highlighting several language difficulties associated with this difference, the following section details if knowledge of rugby language affects communication in the rugby setting.

5.3 How important is knowledge of rugby language when communicating?

To understand to what extent rugby language is affecting communication and with whom, respondents were asked the question: *How important is knowledge of rugby language when communicating with the following people?* A five-point Likert scale, from *extremely important* (5) to *not at all important* (1) was used to capture how important rugby language affects communication with five groups of people: *teammates*, *captain*, *coach*, *referee*, and *managers*. Respondents also had the option to add a group if they wanted to do so. It was hypothesised that communication with coaches would be most affected by knowledge of rugby language due to coaches delivering detailed instructions of plays, set-pieces, and other technical aspects of rugby while at practice. First the results from foreign speakers and then the results from native speakers will be presented.

Table 5.1 shows rugby language was reported by 50% (N=12) of the total 24 responses in four of the five groups as being *extremely important* when communicating with all groups of people in rugby. Furthermore, with an average standard deviation of 0.922 and mean of 4.125, survey respondents overwhelmingly report that knowledge of rugby language is *extremely important* when communicating. *Teammates* are noted as the group where knowledge of rugby language is most important when communicating, with 70.8% (N=17) of respondents rating it *extremely important*. *Managers* was rated as the least important, with 58.33% (N=14) of respondents rating it as *moderately important*, *slightly important* or *not at all important*. *Other* received 4.1% (N=1) in rating 5 and 3. However, no additional comments were provided by the respondents to identify with who they were communicating with.

Table 5.1: Foreign speakers' (24) responses to the question: How important is knowledge of rugby language when communicating with the following people?

	N	Mean	SD	1 (not at all important)	2	3	4	5 (extremely important)
Teammates	24	4.625	0.06469	0%	0%	8.4%	20.8%	70.8%
Captain	24	4.333	1.007	4.2%	0%	12.5%	25%	58.3%
Coach	24	4.333	1.007	4.2%	0%	12.5%	25%	58.3%
Referee	24	4.125	1.154	4.2%	4.2%	20.8%	16.7%	54.1%
Managers	24	3.208	1.382	12.5%	20.8%	25%	16.7%	25%
Other	24	NA	NA	0%	0%	4.1%	0%	4.1%

Note: 1= Not at all important, 2= Slightly important, 3= Moderately important, 4= Very important, 5= Extremely important.

Having looked at the results for foreign speakers, I will now turn to the results of native speakers. Table 5.2 shows that as with foreign speakers, native speakers believe knowledge of rugby language is *extremely important* when communicating with four of the five groups. An average standard deviation of 0.845 and mean of 4.232 also shows native speakers note knowledge of rugby language is critical when communicating. *Extremely important* received over 50% (N=28) of the total 56 responses in four of the five groups and over 60% (N=34) in three groups. Communicating with the *coach*, with 64.3% (N=36) of the 56 respondents was the highest rated. *Teammates*, with 62.5% (N=35) in *extremely important* was rated second. As with foreign speakers, native speakers also rated knowledge of rugby language the least important when communicating with managers with 60.7% (N=34) of respondents rating it as *moderately*, *slightly*, or *not at all important*. *Other* received 1.8% (N=1) in ratings 3 and 4, but no comments were provided by respondents to identify with whom.

Table 5.2: Native speakers' (56) responses to the question: How important is a knowledge of rugby language when communicating with the following people?

	N	Mean	SD	1 (not at all important)	2	3	4	5 (extremely important)
Teammates	56	4.429	0.8058	0%	0%	19.6%	17.9%	62.5%
Captain	56	4.286	0.9088	1.8%	0%	19.6%	25%	53.6%
Coach	56	4.554	0.6584	0%	0%	8.9%	26.8%	64.3%
Referee	56	4.393	0.8459	0%	1.8%	17.9%	19.6%	60.7%
Managers	56	3.5	1.009	1.8%	8.9%	50%	16.1%	23.2%
Other	56	NA	NA	0%	0%	1.8%	1.8%	0%

Note: 1= Not at all important, 2= Slightly important, 3= Moderately important, 4= Very important, 5= Extremely important.

Fisher's exact test was used to assess the statistical significance between foreign speakers and native speakers for each group. No statistical significance was found for communication with *teammates*: $P=.638$, *captain*: $P=.772$, *coach*: $P=.867$, *referee*: $P=.29$, *managers*: $P=.144$, and *other*: $P=1$. This finding indicates both foreign speakers and native speakers agree knowledge of rugby language is *extremely important* when communicating with people in the rugby setting.

The 12 participants in interviews were asked to expand on their survey answers.

Comprehension of the conversation was the most frequent theme, with seven of the 12 participants raising it. In this context, *comprehension of the conversation* is defined as understanding the rugby language being used without the need for clarification. The following two excerpts from a foreign speaking (English speaking) coach in Japan (IP4) and a foreign speaking (French speaking) player in Japan (IP2) detail how knowledge of rugby language affects both a player's and coach's ability to *comprehend* in the rugby setting. The selected excerpts are typical of the answers gathered in the interviews and provide a broader view of why knowledge of rugby language is critical. In the first excerpt, IP4 notes *comprehension* of rugby language is important when listening to have an idea or

understanding of what the other person is saying. In the second excerpt, IP2 reinforces the notion that *comprehension* of rugby language when listening is important. Additionally, IP2's excerpt corresponds with the results in Section 4.3 that showed language difficulties occur the most *at practice* and *during the game*.

IP4: *Well I think each country has its specific rugby language, you know. So, it's just understanding what each countries' language is. So, when they do talk, you have an idea or concept of what they are saying. So, for arguments sake, in New Zealand they would be talking about first-five, second-five, so halfback, first-five, second-five. And in South Africa, you would be talking about scrum-half, fly-half, center, second-center. In England, you might be talking about halfback and standoff, you know.*

IP2: *Yes, it is really important because yeah, if you don't know what they are speaking about, you have to ask them, maybe for example during the training and during the games there are all speaking in rugby language. So yeah, it could be difficult if you don't understand anything.*

The results, as shown in Tables 5.1 and 5.2 and excerpts by IP4 and IP2, affirm that knowledge of rugby language is *extremely important* when communicating with *teammates, the captain, the coach, and the referee*. As both native and foreign speakers indicate rugby language is *extremely important* while in rugby, the results support the investigation and creation of the single and MWU technical word lists for pedagogical applications (see Section 6.2). With the qualitative data from one participant showing knowledge of rugby language is particularly important *at practice* and *during the game*, the following section focuses on whether participant IP2's observation in the quote above is representative of the rugby community in terms of *training* and *during the games* being where rugby language occurs the most.

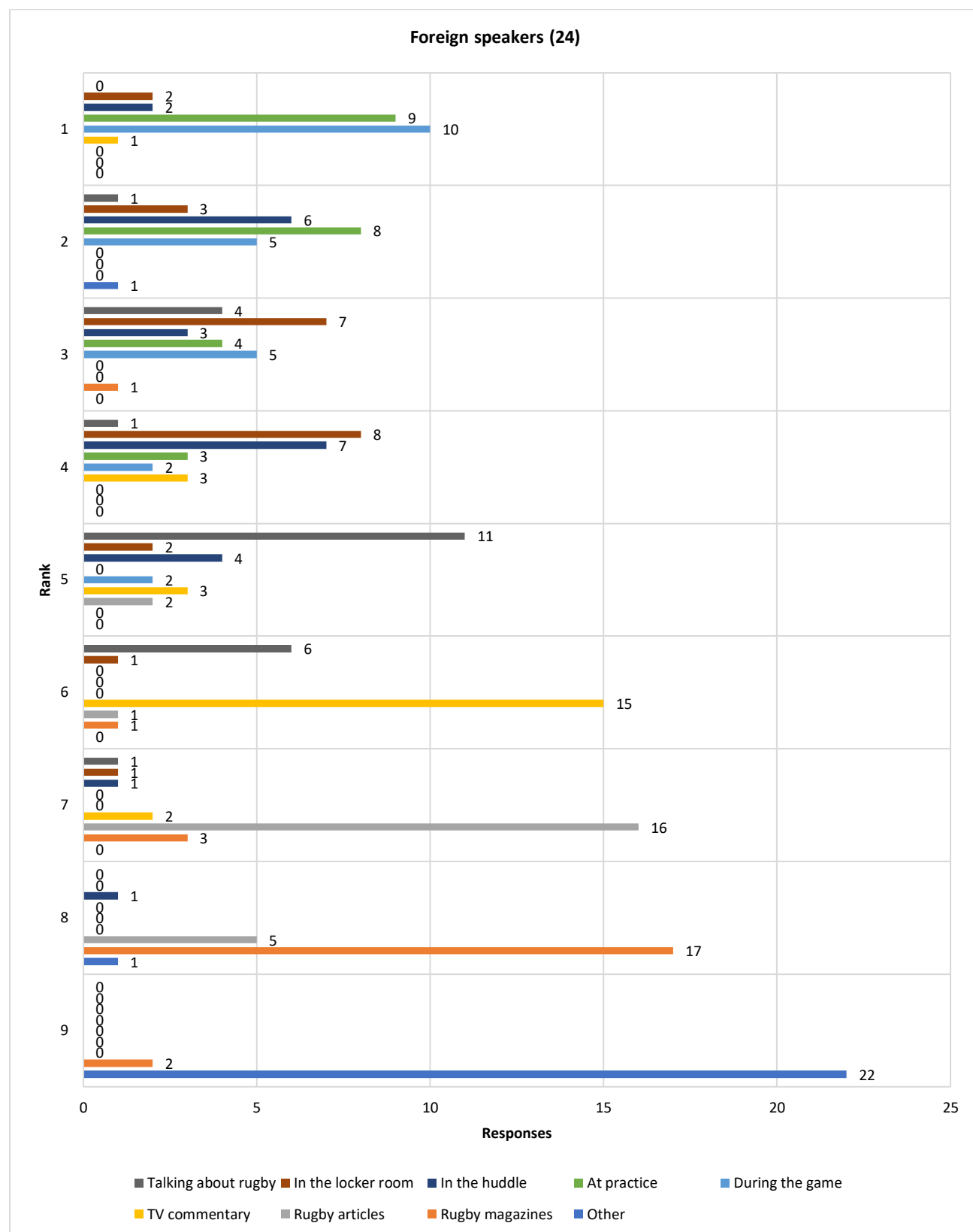
5.4 Where does rugby language occur the most?

Within rugby, there are several possible places where rugby language is used, both in spoken and written discourse. Such places include *at practice* and *in the locker room* for

spoken discourse, and in *rugby magazines* and *rugby articles* for written discourse. Understanding where rugby language occurs is important for corpus development in the present study. It was hypothesised that rugby language occurs most *at practice* due to how in-depth and technical the conversations can be when set-pieces are described. Survey respondents ranked eight situations in order where rugby language occurs the most in written and spoken language in their opinion. These situations are: *Talking about rugby, in the locker room, in the huddle, at practice, during the game, TV commentary, rugby articles, and rugby magazines*. Respondents were also provided an option to write an additional situation.

Figure 5.2 shows rugby language occurs throughout all situations in rugby, both in spoken and written discourse. For spoken discourse, the highest ranked situations by the 24 surveyed foreign speaking players and coaches were *during the game* (41.6%, N=10), followed by *at practice* (37.5%, N=9) in rank 1. *During the game* received 20 (83.3%) of the total 24 responses in the first three rankings and *at practice* received 21 (87.5%) of the total 24 responses in the first three rankings. For written discourse, *rugby magazines*, with 22 (91.6%) responses in rankings 7, 8, and 9 were ranked lowest. *Other* was ranked last (rank 9) with 22 (91.66%) responses of the possible 24 total responses. The remaining two *other* responses were selected in rank 2 with the comment *planning coaching sessions*, and rank 8, with no additional comment. These results mean the eight situations provided were an accurate representation of where rugby language occurs.

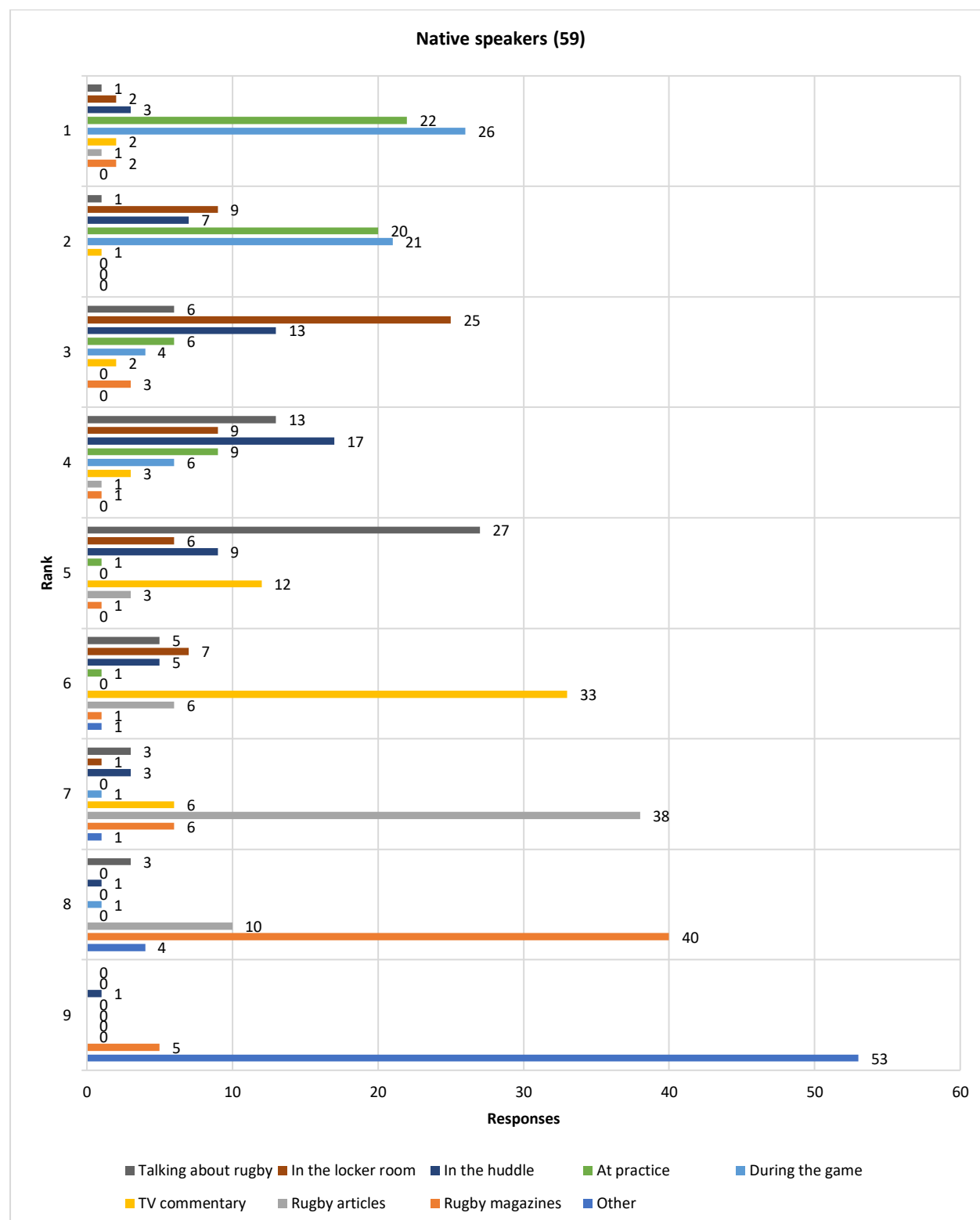
Figure 5.2: Foreign speakers' (24) responses to the statement: Rank the following situations where rugby language occurs the most



Note: Rank 1 = most - Rank 9 = least number of language difficulties

Turning now to responses from native speakers of English, Figure 5.2 shows similar results to the results from foreign speakers, with 22 (37.2%) responses for *at practice* and 26 (44.1%) responses for *during the game* as the situations where rugby language occurs the most in the rugby setting. From the possible 59 responses, *at practice* received 48 (81.3%) responses and *during the game* received 51 (86.4%) responses in rankings 1, 2, and 3, confirming that these situations are where rugby language occurs the most. Figure 5.2 also shows *at practice* and *during the game* are overwhelmingly the highest ranked situations, with the next, *in the huddle*, receiving only three (5%) responses in rank 1. As with foreign speakers, *rugby magazines* with 51 out of 59 (86.44%) responses in rank 7 and 8, and 9 was rated the lowest with 53 out of 59 responses (89.83%). The remaining *other* responses were selected in rank 6, 7, and 8, although no additional comments were provided.

Figure 5.3: Native speakers' (59) responses to the statement: Rank the following situations where rugby language occurs the most.



Note: Rank 1 = most - Rank 9 = least number of language difficulties

Fisher's exact test assessed the statistical significance between foreign speakers' and native speakers' responses for each rank. Rank 1 was statistically significant ($P=.000$), indicating that foreign speakers and native speakers ranked situations differently. From Figures 5.2 and 5.3, it can be seen that except for *at practice* and *during the game*, native speakers ranked the remaining 6 options the least, indicating rugby language primarily occurs in these two situations, according to native speakers. The other ranks did not show any statistical significance (rank 2: $P=.372$, rank 3: $P=.342$, rank 4: $P=.219$, rank 5: $P=.575$, rank 6: $P=.1116$, rank 7: $P=.981$, rank 8: $P=.839$, rank 9: $P=1$).

The results presented in Figures 5.2 and 5.3 report that rugby language does not feature as often in the three rugby sub-domains: *rugby articles*, *rugby magazines*, and *TV commentary*, according to the foreign and native speaking participants who ranked them lowest. In Chapter 6, the results of the lexical profile analysis will be discussed, which will shed more light on this matter. This section correlates with the results presented in Section 4.3, that showed language difficulties occur the most *at practice* and *during the game* and in Section 4.5 that revealed *vocabulary* is the main language aspect affecting communication. Overall, this further provides justification to use an interactional corpus (see Section 3.2.2) to create the spoken rugby corpus. The following section details the extent to which a lack of rugby language may affect speaking or listening *at practice* and *during the game*.

5.5 What speaking and listening situations are affected by rugby language?

Knowledge of rugby language is *extremely important* in communication, as shown in Section 5.2. With a lack of rugby language, language difficulties in the spoken or listening context may occur when communicating with members of the rugby community, such as *teammates*, *coaches*, and *the referee*. The following section presents the results from the survey question *thinking about language difficulties, which of the following situations, if any, have been affected by a lack of rugby language?* First the speaking difficulties are presented, followed by the listening difficulties with the two figures comparing the foreign and native speakers' responses. Fourteen possible multiple-choice options were divided into six for listening (such as *listening to the referee in a game*) and six for speaking (such as *speaking to the coach during practice*), one *other* option for respondents to write additional situations, and one *not witnessed* option. Prior to the survey, it was hypothesised that

speaking to teammates during the game would be the most affected by a lack of rugby language, as players need to produce the technical vocabulary fluently and accurately so teammates can fully understand them.

Overall, Figure 5.4 shows speaking rather than listening caused the greatest difficulties. Foreign speakers reported experiencing more difficulties when speaking due to a lack of rugby language than native speakers, as might be expected. In all six situations, foreign speakers experienced more speaking difficulties than native speakers, with an average difference of 11.25% between the two groups. *Speaking to teammates during the game* was the highest rated situation for both groups, with 72% (N=18) of foreign speakers and 51.6% (N=31) of native speakers. *Speaking to teammates during practice* was the second highest rated by both foreign speakers with 56% (N=14) and native speakers with 41.6% (N=25). *Speaking with managers* was the lowest rated for both foreigner speakers, with 20% (N=5) and native speakers, with 12% (N=3).

Figure 5.4: Speaking situations affected by rugby language

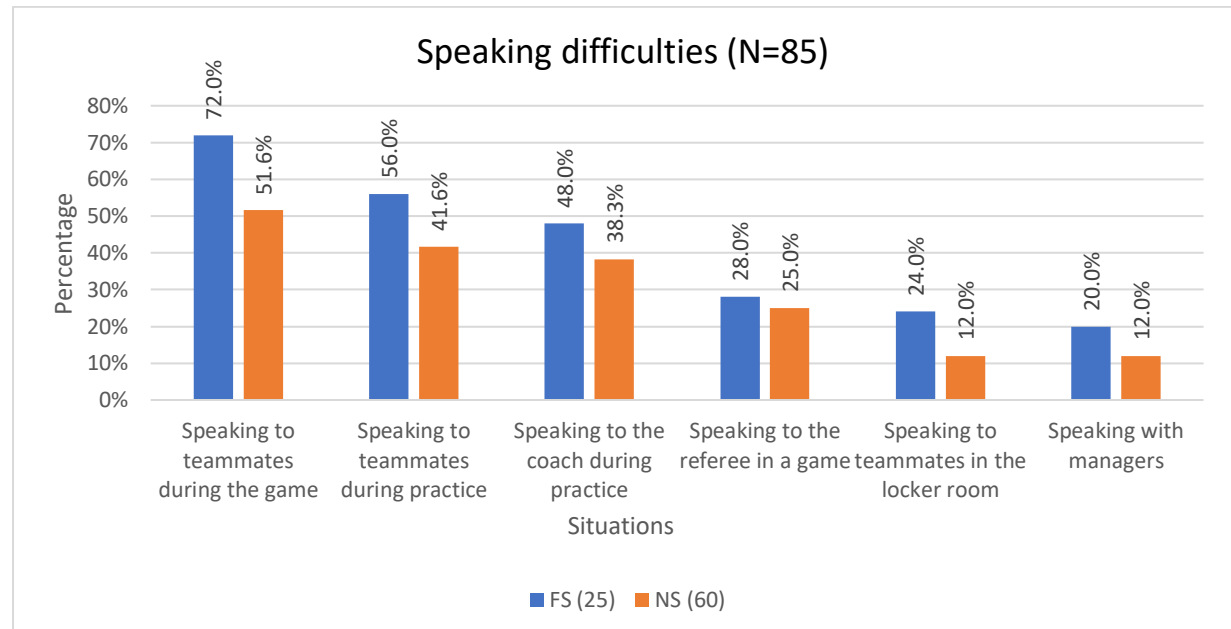
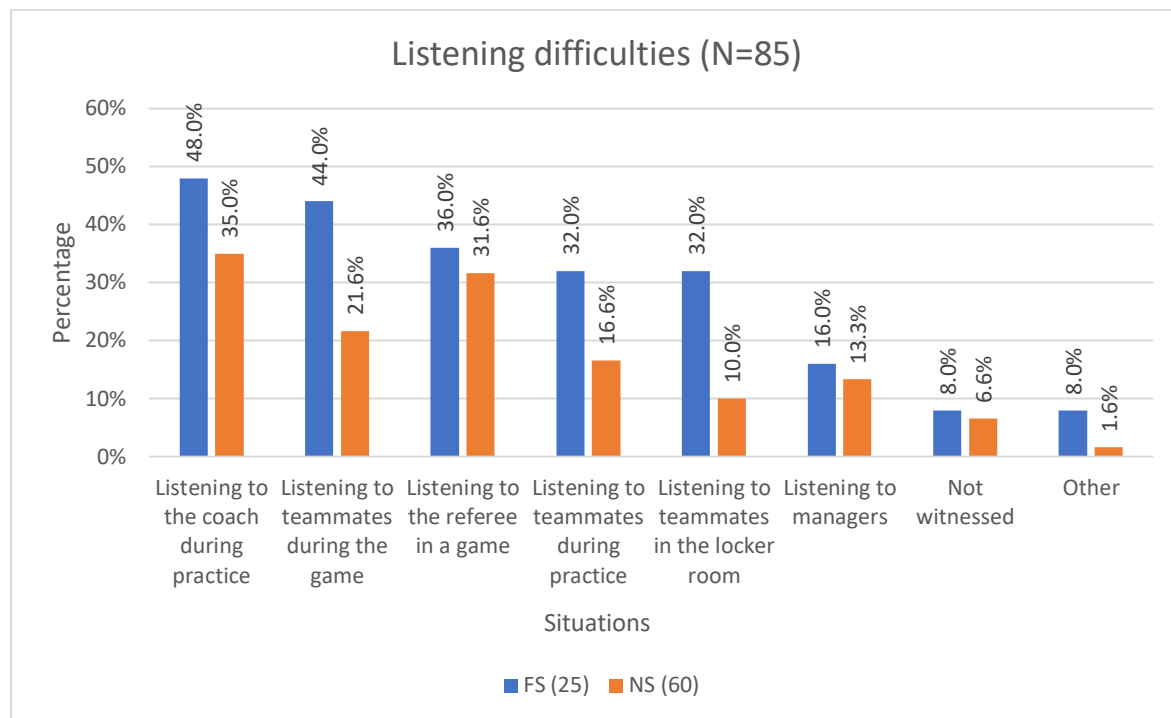


Figure 5.5 below presents the results of the survey item, pertaining to listening difficulties. As with the results from Figure 5.4 above, Figure 5.5 shows foreign speakers note experiencing more listening difficulties in the six situations compared to native speakers,

with an average difference of 13.31% between the two groups. *Listening to the coach during practice* was the highest rated for both groups, with 48% (N=12) of foreign speakers and 35% (N=21) of native speakers noting they experienced listening difficulties due to a lack of rugby language. *Listening to teammates during the game* for foreign speakers, with 44% (N=11), was the second highest rated. *Listening to teammates* had the largest disparity between the groups' responses, with 21.5% (N=22) reported by native speakers, meaning a difference of 22.4%. *Listening to the referee in the game* for native speakers, with 31.6% (N=19) was the second highest rated. *Listening to managers*, with 16% (N=4) of foreign speakers and 13.3% (N=8) of native speakers was the lowest. A total of 8% (N=2) of foreign speakers and 1.6% (N=1) of native speakers experienced difficulties in *other* situations. Two comments were provided by foreign speaking respondents (*discussing philosophies with players, getting them (players) to understand principles of the game and the implications if we don't do them (the principles)*). Although small, 8% (N=2) of foreign speakers and 6.6% (N=4) of native speakers noted *not witnessing* language difficulties due to a lack of rugby language. This could be because, for example, some L2 speakers in the team could be proficient in L2 rugby language. However, none of the interview participants commented on this point.

Figure 5.5: Listening difficulties affected by rugby language



Fisher's exact test showed *listening to teammates in the locker room* ($P=.022$) was statistically significant. This result, along with the results in Figure 5.4, indicate foreign speakers experience listening difficulties due to a lack of rugby language knowledge when listening to teammates more than native speakers, as might be expected. No statistical significance was evident in the 13 remaining options (*speaking to teammates during the game* $P=.097$, *speaking to teammates during practice* $P=.243$, *speaking to teammates in the locker room* $P=.357$, *speaking to the referee in a game* $P=.79$, *speaking to the coach during practice* $P=.472$, *speaking to managers* $P=.542$, *listening to teammates during the game* $P=.062$, *listening to teammates during practice* $P=.147$, *speaking to the referee in a game* $P=.801$, *listening to the coach during practice* $P=.33$, *listening to managers* $P=.742$, *other* $P=.206$, *not witnessed* $P=.205$)

Comparing the results in this section to Section 4.4, it is clear a lack of rugby language knowledge *at practice* and *during the game* are the primary aspects affecting communication. Foreign speakers rated that speaking difficulties due to rugby language occur more in these situations because of general language difficulties (see Section 4.4). Foreign speakers also rated *speaking to teammates at practice* with 72% ($N=18$) and

speaking to teammates during the game with 56% (N=14) are affected by rugby language compared to general speaking difficulties affecting the two situations with 68% (N=17) and 40% (N=10), respectively.

Overall, the results highlight the need to improve both speaking and listening for foreign and native speakers *during the game* and *at practice*. Speaking difficulties was also an issue within the vocabulary productive knowledge task (Section 3.9.4), as due to the difficulty of the task, the foreign participants withdrew. Although the results in Chapter 4 indicate several language features, such as *fluency* and *pronunciation*, affect communication, the results above also conclude rugby language is a vital *at practice* and *during the game*. Suggestions for strategies on possibly helping to resolve these difficulties will be discussed in Chapter 7. The following section focuses on how foreign and native speaking participants in this study report on learning rugby language.

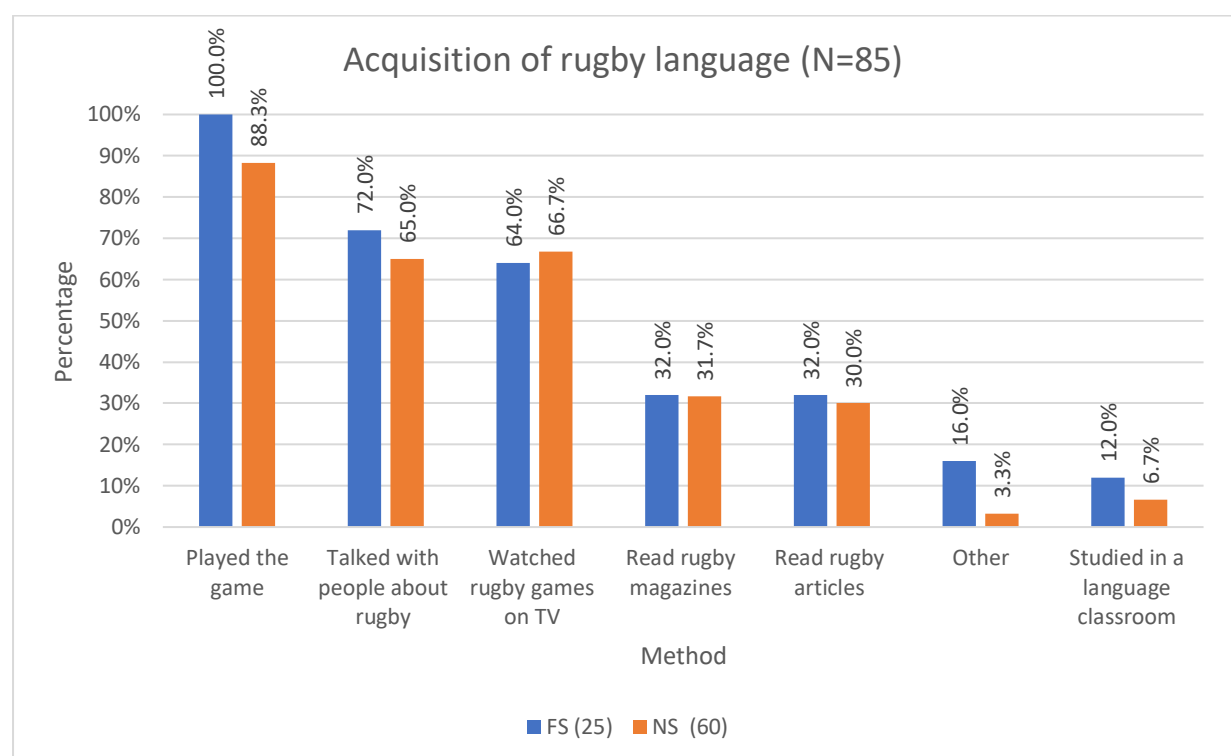
5.6 How did players and coaches learn rugby language?

There are several ways that learners could acquire technical rugby language, for example, by playing rugby, watching games on TV, or attending language courses. Understanding how players and coaches acquired rugby language will assist in developing materials for learning L2 rugby language and for understanding what the challenges might be in acquiring knowledge of the language and use. The following section presents the results from the survey question *How did you learn the language you use for playing/talking about rugby?* The hypothesis was *playing the game* would be the key method used to acquire rugby language, as this was also the method used when I was learning the specialised language. The 86 survey respondents selected from six possible methods, such as *played the game* and *studied in a language classroom*, and an *other* option for respondents to include their own suggestions.

Figure 5.6 presents the survey results overall. This figure shows that rugby language was mainly acquired in the spoken context rather than the written context. Out of the seven options provided in the survey on how learners might have acquired their knowledge of rugby language, all foreign speaking participants (N=25) reported that *playing the game* was the primary method used to acquire rugby language, compared to 88.3% (N=53) of native

speakers. *Watching rugby games on TV* was the second highest rated method for native speakers, with 66.7% (N=40). For foreign speakers, with 72% (N=18) *talked with people about rugby* was the second highest rated method. Conversely, *studying in a language classroom* with 12% (N=3) of foreign speakers and 6.7% (N=4) of native speakers was the lowest rated methods to acquire rugby language. One comment from a native speaking respondent stated, *classroom rugby study to upskill my own coaching*, which indicates coaching sessions in L1 was an additional method to acquire rugby language.

Figure 5.6: How did players and coaches learn rugby language?



Fisher's exact test assessed statistical significance between foreign speakers and native speakers' responses for each method. No statistical significance was found (*played the game*: $P=.1$, *watched rugby games on TV*: $P=.807$, *talked with people about rugby*: $P=.618$, *read rugby articles*: $P=1$, *read rugby magazines*: $P=1$, *studied in a language classroom*: $P=.414$, *other*: $P=.059$). These results suggest that both foreign and native speakers used the same methods to acquire L1 technical rugby language.

An interesting point (see Figure 5.6) is the similarity of responses from both foreign speakers and native speakers, suggesting that they use the same methods when acquiring rugby language. The average contrast between the two groups is only 5.9%. Two sets of data that somewhat contradict each other are those above and the results in section 5.4, which showed respondents do not believe TV commentary contains large amounts of rugby language. Sixty-four percent (N=16) of foreign speakers and 66.7% (N=40) of native speakers reported that they *watched rugby games on TV* to acquire rugby language. However, in Section 5.4, *TV commentary* was ranked sixth out of eight by both foreign and native speakers. Therefore, these two results indicate respondents are using *TV commentary* to acquire rugby language, but also believe the situation does not contain any large amount of rugby language. The amount of technical rugby language in TV commentary will be presented as part of the corpus analysis in Chapter 6.

Turning now to the qualitative data gathered in the semi-structured interviews, the theme *playing the game*, defined in this context as being a member of a rugby team and participating in a match, was reported by all 12 participants. The following two excerpts from a native speaking (English speaking) coach in New Zealand (IP12) and a foreign speaking (French speaking) coach in Japan (IP5) state that *playing the game* is important both linguistically and culturally. The first excerpt from IP12 details that rugby language is somewhat of a second language in New Zealand, given its position culturally in the country, where it is seen as a “*past-time sport*”. As rugby is seen as a part of the New Zealand national identity (Crawford, 1985; Grainger, 2009; Maclean, 1999; Phillips, 1996), IP12 believes the specialised language will be incidentally acquired through exposure to the game. He says:

IP12: *Actually, just playing the game. You pick things up as you play because in NZ, it's the past-time sport. You kind of grow up with rugby, even if you don't really like it. You're associated by some form, whether a family member playing or that's the only really sport in the schools if you are from a rural community.*

The following excerpt from IP5 highlights how *playing the game* impacts all areas of rugby. Regardless of a person's status in rugby, whether a coach, chairman, president, or executive committee member, IP5 believes that acquisition of rugby language is through *playing the game*. All 18 coaches surveyed in the needs analysis stated that they had played rugby prior to coaching, and they had all acquired rugby language through *playing the game*. He said,

IP5: *Mainly playing or to be involved in the game, in one way or another, but most of the coaches were playing before, most of the chairman or presidents or the executive committee of any team were playing before, so playing was the first thing.*

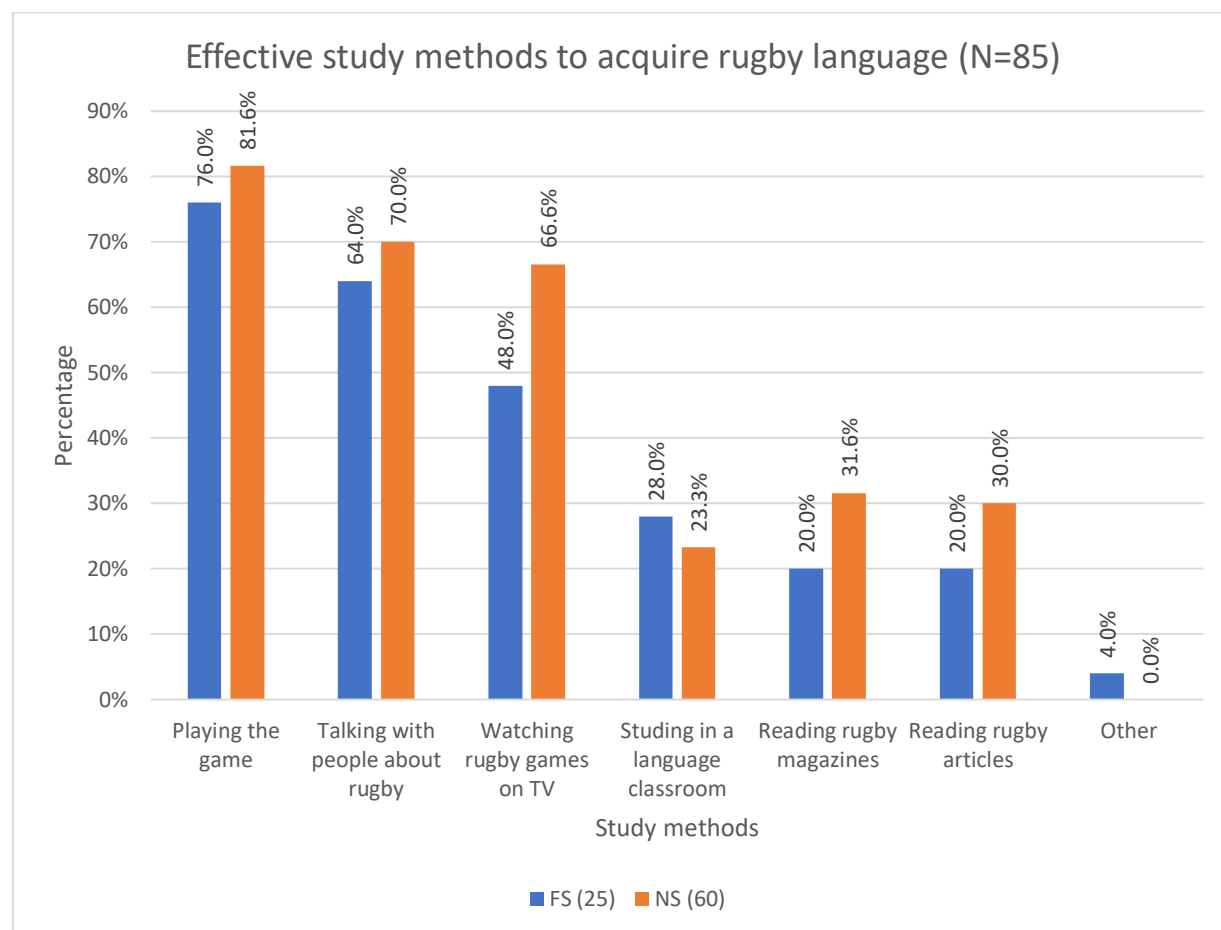
The results of this section show *playing the game* was the primary method used by both foreign speaking and native speaking players and coaches to acquire L1 rugby language. *Watching rugby games on TV* and *talking with people about rugby* were also reported as methods used to acquire rugby language. Above all, the language is learned through spoken, rather than written exposure. This result stresses the importance of using spoken corpora when creating the technical rugby word lists and for developing pedagogical materials for use in an ESP course. Further discussion on curriculum design and how to apply these results into the language classroom will be presented in the discussion chapter (Chapter 7). Although the results in this section conclude that L1 rugby language was acquired primarily through *playing the game*, it may not practically be the most pedagogically effective and efficient method for learning specialised vocabulary, which is the focus of the next section.

5.7 What are the most effective methods for acquiring rugby language?

By understanding not only how learners acquired the language but also what are effective methods will assist in creating a specialised ESP course that mimics these learning conditions. As with Section 5.6, It was hypothesised *playing the game* would be the main method to acquire rugby language. However, it was also hypothesised that the other methods would be used as merely *playing* would not be sufficient and time wise. The survey item (multiple-choice) and methods which were provided, such as *playing the game* and *studying in a language classroom*, are the same as those presented in Section 5.6.

Playing the game with 76% (N=19) of foreign speakers and 81.6% (N=49) of native speakers, was rated as the most effective method to acquire rugby language. *Talking with people about rugby*, with 64% (N=16) of foreign speakers and 70% (N=42) of native speakers was the second highest rated method. *Reading rugby articles* with 20% (N=5) of foreign speakers and 30% (N=18) of native speakers was the lowest rated method. Four percent (N=1) of foreign speakers noted *other*, with the comment *coaching development courses*. Foreign speakers' responses for *playing the game* decreased from 100% (N=25) in Figure 5.6 to 76% (N=19) in Figure 5.7. There was also a slight decrease in the native speakers' responses, from 88.3% (N=53) in Figure 5.6 to 81.6% (N=49) in Figure 5.7. This decrease indicates that although *playing the game* is the main method to initially acquire L1 rugby language, other methods may be more effective. In addition, the results from foreign speakers suggest they have tried to use the same method to acquire L2 rugby language but found the process to be more difficult.

Figure 5.7: Responses to the question: Which of the following study methods do you think are effective for learning rugby language?



Fisher's exact test determined no statistical significance between foreign speakers and native speakers' responses for each method (*playing the game*: $P=.563$, *watching rugby games on TV*: $P=.144$, *talking with people about rugby*: $P=.616$, *reading rugby articles*: $P=.428$, *reading rugby magazines*: $P=.306$, *studying in a language classroom*: $P=.783$, *other*: $P=.294$). This indicates foreign speakers and native speakers are statistically similar in their results.

Two interesting points arose from the data in this section. First, *studying in the language classroom* saw a sizable increase in the number of responses, with 12% ($N=3$) of foreign speakers stating they had had formal instruction (Figure 5.6), to 28% ($N=7$) of foreign speakers noting it is an effective method (Figure 5.7). There was also an increase in native speaker responses for *studying in the language classroom*, from 6.7% ($N=4$) in Figure 5.6 to

23.3% (N=14) in Figure 5.7. Although the results are still relatively low compared to *playing the game*, more responses in Figure 5.7 suggests that players and coaches are aware that explicit instruction may also be an effective method for learning. Another survey item (See appendix 1, page 235) asked foreign speaker respondents if they were currently studying L2 rugby language at the time of completing the survey. Fifty-two percent (N=13) of foreign speakers noted they were currently studying L2 rugby language, with 46.2% (N=6) stating they were studying in a language classroom. The following excerpt from a foreign speaking (English speaking) coach in Japan (IP6), who was studying rugby language in a classroom at the time of the interview, proposes an activity for learning L2 rugby language in the language classroom. The coach said:

Interviewer: *What is your view on explicitly learning rugby language like in a rugby classroom? Would it be a useful tool for players and coaches if they are coming to Japan or going to New Zealand?*

IP6: *Yes, and tailored discussions; and part of that would come up through almost taking the areas of the game as a discussion topic. So, like ok what are some of the options of what we are trying to achieve and you would find in that discussion that you would cover off all the language and there would be cross-over language across areas of the game.*

The second interesting point from the data is foreign speakers' responses in Figure 5.7 decreased from Figure 5.6, indicating players and coaches have become aware that methods used to initially acquire rugby language may not be as effective as first thought. The largest decrease was *watching rugby games on TV*, with 64% (N=16) of foreign speakers noting they used the method to acquire rugby language, to 48% (N=12) of foreign speakers reporting in the survey that it is an effective method. From the semi-structured interviews, three foreign speakers commented on *TV commentary* for acquiring rugby language. The following excerpt from a foreign speaking (English speaking) coach in Japan (IP6) states a mixed view on the effectiveness of the method. IP6 does acknowledge it is effective when used to '*pick up*' specific vocabulary and is an entertaining form of studying. He remarked:

IP6: *Yeah, I mean you will pick up a lot of the terminology. Some of the discussion they have is not necessarily as accurate as it should be but yeah but it is engaging it is entertaining and you are getting in all three at the same time and then definitely they are saying the right things in terms of using the right vocabulary that rugby people would understand.*

That said, IP6 also remarks on the inaccuracy in discussion by commentators indicating it may not be appropriate for use in the language classroom. The topic of using TV commentary in the language classroom will be discussed further in Chapter 7.

The results of this section suggest that the participants find spoken contents as the most effective methods to acquire rugby language. That is, *playing the game* was rated the most effective method by both foreign speakers and native speakers, with *watching rugby games on TV* and *talking with people about rugby* also highly rated as methods for acquiring rugby language. From a pedagogical standpoint, merely *playing the game* is not an effective method to acquire L2 rugby language, because it precludes players and coaches learning any language prior to joining the L2 rugby community. Furthermore, as shown in Chapter 4 and the present chapter, language difficulties occur due to a lack of rugby language knowledge. Therefore, the most effective way to acquire L2 rugby language could be using a combination of the methods presented in Figures 5.6 and 5.7 to create materials using TV commentary, the single and MWU lists presented in this study, and focused discussion prompts (as noted by IP6 above), in the language classroom, to assist players and coaches with their linguistic needs. An example ESP course that uses these materials is discussed in Chapter 7, Section 7.4.

5.8 Chapter summary

In summary, this chapter has presented the results of six items from the need analysis that focused on the theme of rugby language. Overall, the results in this chapter unsurprisingly identified rugby language is a critical aspect of communication in rugby that affects both players' and coaches' ability to play or coach the game well. The first section in this chapter showed that there are variations in rugby language, such as in the use of *phrases* and *positional names*. These differences can occur between English as a first language

countries, such as England or New Zealand, as well as in foreign language contexts, for example, Japan. The qualitative data highlighted that participants have experienced such differences in rugby language and that this, in turn, negatively affected communication for them.

The second investigated survey item revealed how knowledge of rugby language is *extremely important* for both foreign and native speakers when communicating with all groups in rugby, such as *teammates and referees*. Knowledge of rugby language is particularly important when communicating with *teammates*, with 65% (N=52) of the 80 respondents rating it as *extremely important*. *Comprehension* was the main theme that arose in the semi-structured interview data, noting that a lack of rugby language affects communication, for both foreign and native speakers.

The third item showed rugby language occurs throughout the rugby setting, both in spoken and written discourse. *At practice* received 36 (43.3%) of the total 83 responses, ranking the situation as the most frequent place rugby language occurs. *During the game* with 31 (37.3%) of the 83 responses was ranked second in the nine-item ranking question.

The fourth item presented in this chapter showed foreign speakers experience more speaking and listening difficulties due a lack of rugby language than native speakers. That said, both foreign speakers and native speakers noted that speaking difficulties due to rugby language occur most when *speaking to teammates during practice* and listening difficulties occur when *listening to the coach during practice*. As stated in Chapter 4, *at practice* and *during the game* were rated as the two situations where language difficulties occur the most, and the results in this chapter indicate that participants feel that rugby language is the main language aspect that affects communication in these two situations.

The fifth item indicated both foreign and native speakers acquired rugby language through the spoken context, primarily *playing the game* (91.7%, N=78/85). From the semi-structured interviews, *playing the game* was also a common theme in the data. How the results of this item can be applied into the language classroom will be further discussed in Chapter 7.

The final section in this chapter showed that *playing the game* is the main method to acquire rugby language and it is also believed to be the most effective. *Studying in the language classroom* was not used to acquire rugby language. However, the results in Figure 5.7 showed the method to be somewhat effective, with 24.7% of the total respondents noting as such. This result indicates that although both foreign and native speakers did not use *studying in the language classroom* to initially acquire rugby language, both groups believe it is an effective method. The increase in the results is positive, indicating both foreign and native speakers are open to the possibility of using the *language classroom* to acquire rugby language.

The findings in this chapter and Chapter 4 will be combined in Chapter 7 to discuss how to meet the needs of foreign players and coaches. The following chapter presents the results of the lexical profile and vocabulary load analysis on the spoken and written rugby corpora. Furthermore, the results of the technical single and MWU lists are discussed.

Chapter 6 results: Vocabulary in spoken and written rugby discourse

6.1 Introduction

The three aims of this chapter are to present the lexicon of spoken and written rugby discourse, the technical single and MWU rugby word lists, and the receptive knowledge of technical rugby vocabulary. The first section in the chapter presents the lexical profile of the spoken and written rugby corpus along Nation's (2012) BNC/COCA lists. The results of each sub corpora in the spoken corpus will also be presented to highlight any differences. The second section in the chapter discusses the vocabulary load of the spoken and written corpus, highlighting the coverage needed to reach 95% and 98% coverage in each of the corpora along the BNC/COCA word-frequency scale. The third section presents the technical single and multi-word unit lists and their coverage in spoken and written rugby discourse, in addition to the BNC/COCA word lists. The final section in this chapter presents the findings of the receptive vocabulary knowledge task conducted in the needs analysis survey. This chapter answers the following research questions, as shown in Section 2.9.

1. What is the lexical profile of rugby vocabulary using Nation's (2012) BNC/COCA word lists?
2. What is the coverage of Schmitt and Schmitt's (2014) high, mid, and low frequency vocabulary bands in the rugby corpus?
3. What is the vocabulary load of each area in the rugby corpus?
4. To what extent does spoken rugby vocabulary differ from written rugby vocabulary?
5. To what extent does rugby vocabulary differ from general spoken English?
6. To what extent does the receptive knowledge of technical rugby vocabulary differ between L1 and L2 speakers?
7. Which word types in Nation's (2012) BNC/COCA base word lists are technical words in the field of spoken and written rugby discourse?
 - 7a. How many of these types are from Schmitt and Schmitt's (2014) high, medium, and low frequency vocabulary bands?

8. What is the overall coverage of technical rugby vocabulary in the spoken and written rugby corpora?
9. What are the semantic features of the technical spoken and written word list?
10. What is the coverage of the technical spoken and written rugby word lists in the TV commentary, Interactional, and written corpora?
11. What is the coverage of the technical spoken rugby word list in general spoken English?
12. What are the most frequent technical MWUs in the field of spoken and written rugby discourse?
13. To what extent does the receptive knowledge of technical rugby vocabulary differ between L1 and L2 speakers?

6.2 What is the lexical profile of the spoken rugby corpus using Nation's (2012) BNC/COCA word lists?

To answer the first research question, Table 6.1 presents the findings of the spoken rugby corpus. The lexical profile along Nation's (2012) frequency-based BNC/COCA word lists, with the number of word types, tokens, coverage, and the three most frequency occurring words in each base word lists are shown.

As evident in Table 6.1, vocabulary in spoken rugby discourse primarily occurred in the first three of Nation's (2012) 25,000 BNC/COCA base word lists and in the supplementary word lists of proper nouns, abbreviations, and compounds. The first three 1,000 BNC/COCA word families accounted for 84.34%, 3.62%, and 1.47%, respectively of the total tokens in the spoken rugby corpus. The four supplementary lists covered a total of 8.35%, with 6.39% of the tokens occurring in the proper noun supplementary list. The coverage dropped considerably from the fourth 1,000 word families, with only 2.16% of total coverage occurring from the fourth to the 25th BNC/COCA lists. The cumulative coverage of Nation's (2012) 25 BNC/COCA lists and supplementary lists was 99.94%. The remaining 0.06% included possible technical words, exclusive to rugby. This list was named 'rugby base word list' to include them in the analysis.

Table 6.1: Lexical profile of spoken rugby corpus across Nation's (2012) BNC/COCA word lists

BNC/COCA word list	Types	Tokens	Coverage	Cumulative coverage	Examples
1	1,507	51,682	84.34%	84.34%	the, and, to
2	647	2,216	3.62%	87.96%	defence, advantage, mate
3	286	901	1.47%	89.43%	penalty, tackle, pace
4	143	311	0.51%	89.94%	bonus, prop, momentum
5	113	197	0.32%	90.26%	referee, intercept, collision
6	68	171	0.28%	90.54%	rugby, jersey, awesome
7	44	82	0.13%	90.67%	pods, colts, hooker
8	39	116	0.19%	90.86%	nil, winger, tyre
9	15	21	0.03%	90.89%	concussion, lethargic, octopus
10	16	34	0.06%	90.95%	hardcore, maul, mauls
11	15	131	0.21%	91.16%	scrum, scrums, stats
12	10	22	0.04%	91.20%	hoon, mongrel, jugular
13	7	60	0.10%	91.30%	offside, offload, offloads
14	8	63	0.10%	91.40%	ruck, rucks, lactic
15	6	35	0.06%	91.46%	halfback, halfbacks, demeanor
16	0	0	0.00%	91.46%	
17	4	64	0.10%	91.56%	lineout, lineouts, marist
18	2	3	0.00%	91.56%	onside, scrummaging
19	3	4	0.01%	91.57%	shambolic, debutant, ropey
20	3	14	0.02%	91.59%	tighties, tighthead, kickstart
21	1	1	0.00%	91.59%	razzle
22	1	1	0.00%	91.59%	hight
23	1	1	0.00%	91.59%	plyometrics
24	0	0	0.00%	91.59%	

25	0	0	0.00%	91.59%	
31 Proper nouns	373	3,918	6.39%	97.98%	Chiefs, Smith, Highlanders
32 Marginal Words	42	997	1.63%	99.61%	eh, fucking, oh
33 Transparent compounds	40	159	0.26%	99.87%	outstanding, fullback, halftime
34 Abbreviations	15	44	0.07%	99.94%	ATS, MSP, ONS
35 Rugby base word list	9	44	0.06%	100%	loosehead, loosies, openside

An interesting finding, as can be seen in the **bolded** figures in Table 6.1, is some lower frequency base word lists provide a higher coverage than that of some higher frequency base word lists (noted also by Nation, 2016 and see also Coxhead, 2018). For example, the 11th 1,000 word families accounted for 0.21% of the total coverage, while the 10th 1,000 only accounted for 0.06% of the total coverage. Other exceptions include words from the 8th, 13th, 14th, 17th, and 20th 1,000 word families (see Table 6.1). This finding indicates these base-word lists contain words frequently used in the spoken rugby corpus. Looking at the three most frequently used words in each of the base-word lists, *winger*, *scrum*, *offside*, *ruck*, *lineout*, and *tighties*, this is indeed the case. In Section 6.3.4, these words are highly technical in spoken rugby discourse and are included in the technical single rugby word lists.

As noted above, the four supplementary lists from Nation's (2012) BNC/COCA list accounted for 8.35% of the total coverage in the spoken rugby corpus, with proper nouns having the highest coverage of 6.39%. The following excerpt from the spoken rugby corpus illustrates the extensive occurrence of proper nouns, with 27 occurring just within this example. All proper nouns in the excerpt are underlined. As can be seen from the examples, the proper nouns are names of players (e.g., *Smith*, *Aaron*, *McKenzie*) and teams from the TV

commentary corpora (i.e. *Chiefs, Highlanders, Rebels*). Note the use of surnames rather than first names in the examples. Thus, pedagogically, learners may need to be made aware of the relatively high number of proper nouns that occur in TV commentary and that certain surnames can have two meanings, such as *Banks, Hunt, and Rebel*, as illustrated in the following excerpt from the TV commentary corpus.

Coming now for Aaron Smith. Away to Hunt. Dillon Hunt he has been a good ball carrier so far. Tokolahi makes some ground. That is the ten-meter line Rebels territory. Clever pass and putting some space in and now Fekitoa. Osborne just went behind him. A little the pass from Buckman. Coltman charging inside the twenty-two, playing well early in the game. Tom Franklin releases it, gets it away to Buckman, such an underrated player is Richard Buckman. Ball available again for Aaron Smith. another charging run by Seiuli. Now here is Banks. Probing, looking. Just hanging on here the Rebels, having made a lot of tackles. In fact, the arm is out again. One would think indicating a penalty, as Wheeler goes hard at the defence. Smith once more has a little dab on his own. The gap closes pretty quickly on him though. Here is Coltman playing at halfback. Smith will be back in position and gets the pass off for Franklin. Off to Whitelock.

(Grant Nisbett – Highlanders vs. Rebels 31/03/2017)

The next subsection presents the lexical profile results of the TV commentary and Interactional corpus.

6.2.1 In what ways do the TV commentary and Interactional rugby corpora differ?

Both corpora reflect the corpus' lexical profile, with spoken rugby vocabulary primarily occurring in the first three of Nation's (2012) 25 BNC/COCA base word lists. Table 6.2 shows that the coverage of high frequency vocabulary in the TV commentary corpora (87.36%) is lower than the Interactional corpora (92.27%). This finding suggests that interacting in team-based situations is lexically more demanding than listening to TV commentary. For both corpora, there is very little lexical coverage from the 3rd 1,000 to the 25th 1,000, with only 2.2% in the TV commentary and 2.11% in the Interactional corpora. This result indicates

that learners mainly require knowledge of high frequency vocabulary in spoken rugby discourse. Coverage of the Range-based rugby base word list was minimal in both corpora, with 0.06% in the TV commentary corpora and 0.09% in the Interactional corpora, suggesting that technical vocabulary exclusive to rugby does occur in both sub domains.

Proper nouns and marginal words are the two main differences between the two corpora. Proper nouns accounted for 9.71% of the total coverage in the TV commentary corpora, compared with only 1.77% in the Interactional corpora. The difference in coverage may be because, unlike personal interactions, a TV commentator's role is to provide information for viewers, such as the names of players and refereeing decisions (Humpolík, 2014). Marginal words in the Interactional corpora covered 3.39%, whereas marginal words accounted for only 0.36% in the TV commentary. These results show that because TV commentary is fast-paced, there is very little time for fillers (e.g. um, ahh, hmm) and due to being on TV, the commentators cannot swear. These two differences in coverage reflect the lexical variation in spoken discourse between the two corpora.

Table 6.2: Comparison of the TV commentary and Interactional corpora lexical coverage across the BNC/COCA word lists

	TV Commentary corpus			Interactional corpus		
BNC/COCA word list	Types	Coverage	Cumulative coverage	Types	Coverage	Cumulative coverage
1	1,195	81.89%	81.89%	1,054	87.72%	87.72%
2	465	3.79%	85.68%	318	3.37%	91.09%
3	225	1.68%	87.36%	113	1.18%	92.27%
4	94	0.54%	87.9%	67	0.46%	92.73%
5	79	0.37%	88.27%	43	0.25%	92.98%
6	44	0.27%	88.54%	29	0.29%	93.27%
7	27	0.11%	88.65%	18	0.16%	93.43%
8	23	0.13%	88.78%	21	0.27%	93.7%
9	11	0.04%	88.82%	4	0.02%	93.72%
10	11	0.05%	88.87%	7	0.07%	93.79%

11	11	0.25%	89.12%	9	0.17%	93.96%
12	5	0.02%	89.14%	5	0.06%	94.02%
13	6	0.16%	89.30%	2	0.01%	94.03%
14	6	0.05%	89.35%	4	0.17%	94.20%
15	5	0.07%	89.42%	3	0.04%	94.24%
16	0	0.00%	89.42%	0	0.00%	94.24%
17	3	0.11%	89.53%	3	0.10%	94.34%
18	2	0.01%	89.54%	0	0.00%	94.34%
19	3	0.01%	89.55%	0	0.00%	94.34%
20	1	0.01%	89.56%	3	0.04%	94.38%
21	1	0.00%	89.56%	0	0.00%	94.38%
22	0	0.00%	89.56%	1	0.00%	94.38%
23	1	0.00%	89.56%	0	0.00%	94.38%
24	0	0.00%	89.56%	0	0.00%	94.38%
25	0	0.00%	89.56%	0	0.00%	94.38%
31 Prop nouns	284	9.71%	99.27%	112	1.77%	96.15%
32 Marginal Words	7	0.36%	99.63%	38	3.39%	99.54%
33 Transparent compounds	30	0.29%	99.92%	20	0.22%	99.76%
34 Abbrev.	4	0.02%	99.94%	12	0.14%	99.91%
35 Rugby base word list	7	0.06%	100%	4	0.09%	100%
TOTAL	2,543	100%	100%	1,889	99.01%	100%

6.2.2 How does the lexical profile of the written rugby corpus compare to the spoken rugby corpus?

To compare the coverage of rugby vocabulary in spoken and written rugby discourse, Table 6.3 below presents the lexical profile of the written rugby corpus along the frequency-based BNC/COCA word lists, with the number of types and coverage in each base word list. For reference, the lexical profile of the spoken rugby corpus is also presented in Table 6.3.

Written rugby discourse also contains primarily general high frequency vocabulary. The cumulative coverage of the first three BNC/COCA word lists accounted for 93.62%, which is higher than spoken rugby discourse. And as with the spoken rugby corpus, the coverage dropped from the fourth 1,000 word families. However, this drop was not as drastic as the spoken rugby corpus, with 5.97% of total coverage occurring in the fourth to 25th base word lists. One main difference between the corpora is the coverage of proper nouns, marginal words, abbreviations, and compounds is significantly lower in the written corpus, with a cumulative coverage of 0.35% than in the spoken corpus, with 8.35%. This means that knowledge of both general and supplementary vocabulary is critical for understanding rugby spoken discourse.

Table 6.3: Lexical profile of the written rugby corpus across the BNC/COCA word lists

	Written corpus			Spoken corpus		
BNC/COCA word list	Types	Coverage	Cumulative coverage	Types	Coverage	Cumulative coverage
1	894	79.61%	79.61%	1,507	84.34%	84.34%
2	452	8.59%	88.2%	647	3.62%	87.96%
3	297	5.42%	93.62%	286	1.47%	89.43%
4	101	1.08%	94.7%	143	0.51%	89.94%
5	49	1.02%	95.72%	113	0.32%	90.26%
6	29	0.57%	96.29%	68	0.28%	90.54%
7	23	0.32%	96.61%	44	0.13%	90.67%
8	14	0.06%	96.67%	39	0.19%	90.86%
9	12	0.04%	96.71%	15	0.03%	90.89%
10	11	0.38%	97.09%	16	0.06%	90.95%

11	4	0.98%	98.07%	15	0.21%	91.16%
12	3	0.03%	98.10%	10	0.04%	91.20%
13	3	0.51%	98.61%	7	0.10%	91.30%
14	4	0.31%	98.92%	8	0.10%	91.40%
15	0	0.00%	98.92%	6	0.06%	91.46%
16	0	0.00%	98.92%	0	0.00%	91.46%
17	2	0.46%	99.38%	4	0.10%	91.56%
18	2	0.17%	99.55%	2	0.00%	91.56%
19	0	0.00%	99.55%	3	0.01%	91.57%
20	1	0.04%	99.59%	3	0.02%	91.59%
21	0	0.00%	99.59%	1	0.00%	91.59%
22	0	0.00%	99.59%	1	0.00%	91.59%
23	0	0.00%	99.59%	1	0.00%	91.59%
24	0	0.00%	99.59%	0	0.00%	91.59%
25	0	0.00%	99.59%	0	0.00%	91.59%
31 Proper nouns	4	0.01%	99.6%	373	6.39%	97.98%
32 Marginal Words	6	0.04%	99.64%	42	1.63%	99.61%
33 Transparent compounds	20	0.27%	99.91%	40	0.26%	99.87%
34 Abbrev.	3	0.03%	99.94%	15	0.07%	99.94%
35 Rugby base word list	1	0.06%	100%	9	0.06%	100%
TOTAL	1,934	100%%	100%	3,412	100%	100%

6.2.3 What is the coverage of high, medium, and low frequency vocabulary in spoken and written rugby discourse?

High frequency vocabulary accounts for the majority of vocabulary in both spoken and written rugby discourse. Table 6.4 below presents the coverage of vocabulary over the rugby spoken and written corpora relating to Schmitt and Schmitt's (2014) and Nation's (2013) division of vocabulary into three bands of high frequency (<3,000 word families), medium frequency (3,000 – 9,000), and low frequency (9,000-). There are three bands because studies on spoken discourse have revealed a large amount of vocabulary is within the 3,000 band (Coxhead et al., 2018; Van-Zeeland & Schmitt, 2013). As can be seen in Table 6.4, both spoken (89.43%) and written (93.62%) rugby discourse contains high proportions of general high frequency vocabulary. Medium frequency vocabulary provided a higher coverage in the written corpus than in the spoken corpus (1.62% difference). Coverage of low frequency vocabulary was also higher in written rugby discourse (2.92%) than in spoken rugby discourse (0.73%). These results mean that spoken rugby discourse contains less medium and low frequency vocabulary than written rugby discourse. The results also highlight that supplementary vocabulary, such as proper nouns and marginal words, are important for comprehending spoken rugby discourse.

Table 6.4: Comparison of high, medium, and low frequency vocabulary in spoken and written rugby discourse

Frequency bands	Spoken corpus	Written corpus
High frequency vocabulary (1,000-3,000)	89.43%	93.62%
Medium frequency vocabulary (4,000-8,000)	1.43%	3.05%
Low frequency vocabulary (9,000-25,000)	0.73%	2.92%
Proper nouns, marginal words, compounds, abbreviations	8.35%	0.35%
BASEWRD 35 rugby base word list	0.06%	0.06%
Total	100.00%	100%

Proper nouns, marginal words, compounds, abbreviations are used considerably more in the spoken rugby corpus (8.35%) than in written rugby corpus (0.35%). This is understandable as

TV commentators need to mention players' names and teams for listeners to understand what is happening in a game. An 8% difference in these corpora is notable.

Together, these results indicate there are slight lexical differences between spoken and written rugby discourse that curriculum designers need to take into consideration when creating an ESP rugby course. The issue of creating such a course will be further discussed in Chapter 7, Section 7.4. Overall, the lexical profile of the spoken and written corpus show that high frequency vocabulary plays a vital role in these texts, which is not surprising given that words such as *ball* are so common. There are slight lexical differences when comparing the two spoken corpora (TV commentary and Interactional). Within TV commentary, proper nouns are prevalent, with 9.71% coverage (see Table 6.2). Marginal words, such as swearing, occur within the Interactional corpus, with 3.39% coverage (see Table 6.2). How these lexical differences affect L2 rugby players and coaches will be discussed in Chapter 7. The following section presents the vocabulary load of the created spoken and written corpora.

6.3 Vocabulary load of rugby discourse

To answer research questions three, four, and five that are related to the vocabulary load of rugby discourse, the following section presents the vocabulary load of spoken and written rugby discourse. The first section presents the vocabulary load of spoken rugby in the spoken rugby corpus, then reports on the TV commentary and Interactional separately. The spoken data are then compared to the vocabulary load of written rugby discourse. The section ends with a comparison of spoken rugby and general spoken English.

6.3.1 What is the vocabulary load of spoken rugby discourse?

Table 6.5 below presents the vocabulary load of the rugby spoken corpus. The adapted supplementary lists from Nation's (2012) (proper nouns, marginal words, compounds, abbreviations – see Chapter 3) were included in the vocabulary load analysis when considering the 95% and 98% thresholds. They are included in the analysis because Nation (2013) points out that once known, these words are not a burden to learners. Secondly, due to their high coverage, the words in the supplementary lists were important to achieve 95%

or 98% coverage. Table 6.5 illustrates the importance of the supplementary lists for comprehension, showing that without them, coverage would not reach 95%.

Table 6.5: Cumulative coverage of the spoken rugby corpus by the 25,000 BNC/COCA word lists, with and without the supplementary lists

BNC/COCA word list	Coverage without the supplementary lists	Coverage with the supplementary lists
1	84.34%	92.69%
2	87.96%	96.31%
3	89.43%	97.78%
4	89.94%	98.29%
5	90.26%	98.61%
6	90.54%	98.89%
7	90.67%	99.02%
8	90.86%	99.21%
9	90.89%	99.24%
10	90.95%	99.30%
11	91.16%	99.51%
12	91.20%	99.55%
13	91.30%	99.65%
14	91.40%	99.75%
15	91.46%	99.81%
16	91.46%	99.81%
17	91.56%	99.91%
18	91.56%	99.91%
19	91.57%	99.92%
20	91.59%	99.94%
21	91.59%	99.94%
22	91.59%	99.94%
23	91.59%	99.94%
24	91.59%	99.94%

25	91.59%	99.94%
35 Rugby base word list	91.65%	100%

As illustrated in bold in Table 6.5, with the four supplementary lists, the spoken corpus reached 95% coverage at the 2,000 base word families and reached 98% coverage at 4,000 base word families. Therefore, knowledge of the most frequent 4,000 word families plus proper nouns, marginal words, compounds, and abbreviations is needed to achieve 98% coverage of spoken rugby discourse. That is, if learners know the first 4,000 word families plus the four supplementary lists, they could theoretically listen to TV rugby commentators and to people talking about rugby. However, other factors, such as technical rugby language may affect comprehension. The coverage of technical vocabulary will be examined in Section 6.4.

6.3.2 To what extent is the vocabulary load of spoken and written rugby discourse different?

Table 6.6 below presents the cumulative coverage needed for the spoken and written rugby corpora. As illustrated in Table 6.6, the written rugby text is lexically more demanding than the spoken text. To reach 95% coverage for both spoken and written vocabulary, knowledge of the first 4,000 word base list plus proper nouns, marginal words, compounds, and abbreviations is needed. To reach 98% coverage for written rugby vocabulary, 11,000 word families plus the supplementary lists is needed. Comparing these levels with the spoken rugby corpus, comprehension of an extra 7,000 word families was needed to reach 98% coverage for the written text. From Table 6.6, it is evident Nation's (2012) adapted supplementary lists is crucial for learners to comprehend spoken rugby discourse, whereas in written rugby, the coverage of these lists is so low, that knowledge of these items is practically irrelevant.

Table 6.6: Vocabulary load of spoken and written rugby corpora

Nation (2012) supplementary list	Spoken rugby corpus	Written rugby corpus
Supplementary lists (proper nouns, marginal words, compounds, abbreviations) (31-34)	8.35%	0.34%
Rugby base word list (35)	0.07%	0.04%
1	92.76%	79.99%
2	96.38%	88.58%
3	97.85%	94.00%
4	98.36%	95.08%
5	98.68%	96.10%
6	98.96%	96.67%
7	99.09%	96.99%
8	99.28%	97.05%
9	99.31%	97.09%
10	99.37%	97.47%
11	99.58%	98.45%

In sum, the results of the lexical profile and vocabulary load analysis show spoken rugby discourse is relatively not lexically demanding, with learners requiring knowledge of the first 4,000 words plus proper nouns, marginal words, compounds, and abbreviations to reach 98% coverage. Within the two spoken rugby discourses, there are slight lexical differences, with TV commentary containing a large number of proper nouns (9.71%) and team-based speech containing a high number of marginal words (3.39%). The next section presents the results of the technical single and MWU lists created from the spoken and written rugby corpora.

6.4 Technical rugby single words and MWUs in rugby discourse

In this section, I report on the created technical single and MWU lists in spoken and written rugby discourse. The subsections are arranged in response to the research questions presented in Section 6.1, first presenting technical single words, then MWUs.

6.4.1 Technical rugby word types from the spoken and written rugby corpus

Two frequency principles were used to guide the selection of lexical items for a technical word list. Words had to occur seven times in the rugby corpus and four times in the rugby base word list (see Section 3.5.1.2). The application of these principles meant that 363 word types were identified as possibly technical in the spoken corpus and 415 word types in the written corpus. Following the frequency analysis, three raters consulted an adapted four-scale semantic rating scale (Quero, 2015), to rate the technical word types on whether the items are general or technical and to the degree of their technicality (see Section 3.6). The semantic analysis resulted in a spoken word list of 313 types and a written word list of 254 types. Finally, related word types were sought from the lists and once the types were combined, two word lists were created: A spoken word list containing 252 types and a written word list containing 226 types.

To answer research question seven (which word types in Nation's (2012) BNC/COCA base word lists are technical words in the field of spoken and written rugby discourse?), Table 6.7 presents the distributional profile of the technical spoken words lists over Schmitt and Schmitt's (2014) and Nation's (2013) high, medium, and low frequency vocabulary bands, as well as Nation's (2012) supplementary lists and the created rugby base word list. As can be seen from Table 6.7, the majority of the items in the spoken word list, 223 (88.5%) types, are general high frequency words (e.g., *ball*, *kick*). This means that they may be familiar to beginner level L2 rugby players and coaches. In contrast, with a total of 20 (7.9%) types, medium (e.g., *bonus*, *conversion*) and low frequency (e.g., *scrum*, *lineout*) vocabulary are low frequency. This result indicates that in addition to being infrequent in general language, the 20 word types are also not frequent in spoken rugby discourse.

Table 6.7: Distribution of the technical spoken word list across Schmitt and Schmitt's (2014) high, medium, and low frequency vocabulary bands

Frequency band	Spoken word list	
	No. of types	Proportion of word list
High frequency (1,000-3,000)	223	88.5%
Mid frequency (4,000-8,000)	12	4.7%
Low frequency (9,000-25,000)	8	3.2%
Supplementary lists (proper nouns, marginal words, compounds, abbreviations)	6	2.4%
Rugby base word list	3	1.2%
Total	252	100%

Table 6.8 below reveals that the technical written word list is very similar to the spoken word list, with the majority of the technical types, (196, or 86.7%) being general high frequency words too (e.g. *push*, *opposition*). A slight difference to the spoken however is there are more medium (e.g., *obstruct*, *prop*) and low frequency (e.g., *maul*, *ruck*) types, with a total of 27 (12%) of the 226 word types. The results from Tables 6.7 and 6.8 reveal that the technical spoken and written rugby word lists are primarily general high frequency vocabulary.

Table 6.8: Distribution of the technical written word list across Schmitt and Schmitt's (2014) high, medium, and low frequency vocabulary bands

Frequency band	Written word list	
	No. of types	Proportion of word list
High frequency (1,000-3,000)	196	86.7%
Mid frequency (4,000-8,000)	19	8.4%
Low frequency (9,000-25,000)	8	3.6%
Supplementary lists (proper nouns, marginal words, compounds, abbreviations)	2	0.9%
Rugby base word list	1	0.4%
Total	226	100%

6.4.2 What are the most frequent technical words in the technical spoken and written rugby word lists?

To provide the reader with a sense of word list examples and in turn, answer research question eight, Table 6.9 illustrates the 25 most frequent technical words in the spoken and written rugby word lists, which were identified from Nation's (2012) BNC/COCA word lists. For ease of recognition, the low frequency items are bolded, the mid frequency items are underlined, and the others are from the high frequency vocabulary band.

Table 6.9: The 25 most frequent technical spoken and written rugby words in Nation's (2006) BNC/COCA word lists

Order of freq.	Spoken word list		Written word list		
	Word type	No. of occurrences	Order of freq.	Word type	No. of occurrences
1	Ball	313	1	ball	840
2	Out	279	2	player	734
3	Back	269	3	kick	602

4	Work	150	4	team	474
5	Game	146	5	line	463
6	Kick	135	6	goal	383
7	Line	130	7	scrum	354
8	Try	118	8	law	340
9	Pass	116	9	touch	329
10	Half	101	10	players	327
11	Play	101	11	play	314
12	Scrum	94	12	penalty	297
13	Hard	90	13	meter	265
14	Side	90	14	<u>referee</u>	260
15	Penalty	87	15	sanction	249
16	Forward	72	16	offside	188
17	Gone	69	17	lineout	169
18	Inside	68	18	ground	167
19	Defence	68	19	match	157
20	Front	66	20	throw	156
21	Points	66	21	free	152
22	Hands	66	22	place	131
23	Set	64	23	front	124
24	Man	61	24	maul	113
25	Tackle	61	25	award	108

Note: Un-bolded, not-underlined = high frequency vocabulary; underlined = medium frequency vocabulary;

Bold = low frequency vocabulary.

Table 6.9 illustrates how both word lists mainly consist of general high frequency vocabulary. Words such as *ball*, *out*, and *back* have high occurrences in the spoken rugby word list, which means they are core technical words in spoken rugby discourse. High frequency items from the written rugby word list include *ball*, *player*, and *kick*. Of the 25 most frequency technical words in the spoken word list, only one is medium or low frequency (*scrum*). Comparatively speaking, only one word is low compared to the written

word list which contains five medium or low frequency items (*scrum, referee, offside, lineout, maul*).

6.4.3 What are the semantic features of spoken and written technical rugby words?

The following section answers research question nine and presents the semantic features of the 252 spoken and 226 written word lists. Table 6.10 shows the coverage of technical words in the three technical scales from the rating scale in their respective corpora. To reiterate the explanation for each rating scale (for more detail, see Table 3.3):

- Scale 2 words occur in the rugby context but also have the same meaning in everyday usage.
- Scale 3 words occur in rugby but with a different meaning to that of everyday usage.
- Scale 4 words are unique to rugby and are associated with rugby.

As shown in Table 6.10, 161 (63.88%) word types in the spoken word list and 171 (75.6%) word types in the written word list were categorized as technical words in scale 2. The spoken word list contains 84 (33.3%) word types which were categorised as scale 3 and the written word list contains 50 (22%). Seven (2.7%) word types in the spoken word list and five (2.2%) in the written word list were categorised as scale 4. The large number of technical words identified in scales 3 and 4 will be of concern for L2 learners and educators, due to their semantic differences with everyday usage. This means even if a word, such as *side*, is high frequency in general English, learners will also need to learn the technical meaning in rugby, which is *team*. Possible methods to help acquire these technical words will be discussed in Chapter 7.

Table 6.10: Summary of semantic analysis of technical words in the spoken and written rugby word lists

Semantic scales	Spoken word list (word types)	Coverage	Written word list (word types)	Coverage
Semantic rating scale 2	161	7.85%	171	26.76%
Semantic rating scale 3	84	3.78%	50	7.80%

Semantic rating scale 4	7	0.41%	5	0.85%
Total	252	12.04%	226	35.41%

The coverage of the technical word lists over their respective corpora is in line with previous lexical studies, with 12% of vocabulary in spoken and 35% in written discourse being technical (Coxhead et al., 2018; Lu, 2018; Valipouri & Nassaji, 2013). This means that one in 10 words in spoken rugby discourse is technical and one in three in written is technical.

To provide a sense of the word list in terms of the items' semantic features, Table 6.11 presents the most frequently occurring technical words in the spoken and written corpus for each sub-scale by its semantic rating. The base word list the word occurs in is also presented. All 20 words in the spoken corpus rated as scale 2 and 3 are from Nation's (2012) BNC/COCA first 1,000. This means these words are high frequency both in general and in rugby spoken discourse. In contrast, five of the 20 words in the written corpus rated as scale 2 and 3 are in varying base word lists. Fifteen of the 16 words rated in scale 4 are low frequency. Therefore, for L2 rugby players and coaches, the only method of exposure to these low frequency words is in the rugby community, by playing the game or watching English TV commentary. The entire spoken and written technical rugby word lists, categorised into their sub-scales, can be seen in Appendices 17-18.

Table 6.11: Top 10 technical spoken and written word types from semantic rating scale bands 2, 3, and 4

	Spoken corpus			Written corpus		
Order of freq.	Word type	No. of occurrences	BASEWRD list	Word type	No. of occurrences	BASEWRD list
	Semantic rating scale 2					
1	Ball	313	1	ball	840	1
2	Game	146	1	player	740	1
3	Kick	135	1	kick	602	1

4	Line	130	1	team	474	1
5	Pass	116	1	line	463	1
6	Gone	69	1	goal	383	2
7	Front	66	1	law	340	1
8	Points	66	1	penalty	297	3
9	Field	54	1	meter	265	2
10	Behind	53	1	referee	260	5
Semantic rating scale 3						
1	Out	279	1	play	314	1
2	Back	269	1	touch	286	1
3	Work	150	1	free	152	1
4	Try	118	1	maul	113	11
5	Half	101	1	half	104	1
6	Play	101	1	try	93	1
7	hard	90	1	forward	86	1
8	side	90	1	mark	84	1
9	forward	72	1	out	84	1
10	inside	68	1	dead	76	1
Semantic rating scale 4						
1	scrum	94	11	scrum	364	11
2	lineout	43	17	lineout	169	17
3	ruck	34	14	ruck	102	14
4	rucks	22	14	tighthead	15	20
5	lineouts	17	17	scrums	10	11
6	scrums	14	11	loosehead	6	35
7	midfield	14	33			
8	loosehead	11	35			
9	loosies	10	35			
10	tighties	7	35			

6.4.4 What is the coverage of the technical spoken rugby word list in the TV commentary, Interactional, and Written rugby corpus?

To investigate how the spoken word list is covered in the three sub-domains examined in this study, and in turn, answer research question 10, Table 6.12 presents the coverage of the technical spoken rugby word list in the TV commentary, Interactional, and for comparison, the written corpus. The table reveals the spoken rugby word list provided a maximum coverage of 10.23% over the TV commentary corpus, which is slightly higher than that of the Interactional corpus (8.05%). These results are not surprising as the findings in Table 6.2 show team-based speech is less lexically demanding than TV commentary as team-based speech uses more general high frequency vocabulary. The coverage of the technical spoken word list in the written corpus shows that the results are similar, with 8.67%. This result means written texts may be an applicable method to receptively acquire knowledge of technical spoken rugby vocabulary.

Table 6.12: Coverage of the technical spoken rugby word list in the rugby corpora

Corpora	Coverage (%)
TV commentary corpus	10.23%
Interactional corpus	8.05%
Written corpus	8.67%

Despite the slight differences in coverage between the TV commentary and Interactional corpus, the percentages are consistent with previous spoken lexical studies (Coxhead et al., 2018). This means rugby learners can encounter technical rugby vocabulary frequently while listening to TV rugby commentary and when interacting in the rugby domain with teammates and coaches.

6.4.5 What is the coverage of the technical spoken rugby word list in New Zealand spoken discourse and general English spoken discourse?

The 11th research question concerns the coverage of technical spoken word list in two general spoken discourses (New Zealand English and general English) to ascertain the extent to which technical rugby vocabulary overlaps with general English. To restate, the first

general corpus consulted was the 10 million spoken section of the British National Corpus (BNC) (Aston & Burnard, 1998). In addition to the BNC, the Wellington Corpus of Spoken New Zealand English (WSC) (Holmes et al., 1998) was analysed, as the technical rugby spoken word list was created solely in the New Zealand context. Prior to running the rugby word list through the WSC, texts related to rugby were removed. In total, 26,010 tokens from 10 sports commentary texts were removed, resulting in a total corpus of 973,990 tokens. Table 6.13 presents the coverage of the technical rugby spoken word list over the two general corpora.

Table 6.13: Coverage of the technical spoken rugby list in two general spoken corpora

Corpus	Coverage
Spoken section of the British National Corpus	2.81%
Wellington Corpus of Spoken New Zealand English	2.99%

Table 6.13 shows the technical rugby spoken word list only accounted for 2.81% of the BNC and 2.99% of the WSC. Such coverage was achieved by words such as *back* and *out*, occurring in both corpora. These results indicate the technical rugby spoken word list represents technical vocabulary that is low frequency in general English spoken discourse or New Zealand spoken discourse.

6.4.6 Validation of the spoken and written rugby word lists

Validation was necessary to ascertain if the word lists represented technical rugby vocabulary in the two corpora. Traditional methods of validation, such as creating a validation corpus (Lu, 2018) or dividing the corpus into subsections for analysis (Miller & Biber, 2015) were not used in this study for two reasons. Firstly, developing a second spoken rugby corpus was prohibitive in terms of time. Secondly, because of the small size of both the spoken and written rugby corpus, it was not possible to divide. Instead, the two independent raters from the rating scale analysis (see Section 3.6.2) were consulted. To restate, the two raters played rugby for over 10 years and coached for over 5 years at the start of the study. Both raters were sent the spoken and written word lists in an Excel sheet

and were asked to check for representativeness. This would, in turn, provide validation of the word lists by rugby domain experts (Long, 2005b). In addition, the raters were asked if the lists were missing any single words or MWUs they decided were overtly technical and should be included.

Both raters concluded that the two word lists are representative of technical rugby vocabulary in spoken and written rugby discourse, returning their sheets without reporting issues with technicality. The raters also provided a list of 25 single and MWU words they thought should be included in the word lists. However, through analysing the suggested items in accordance of the frequency principle (seven times for single words, four times for MWU), only three (*boys*, *fellas*, and *have a go*) items occurred over the required number of times. Through a further analysis of the three possible items, it was confirmed, they were not added to the technical word lists. For example, none of the words in the MWU *have a go* are technical and therefore, cannot be added to the word list. Furthermore, the single words *boys* and *fellas* received a scale 1 rating in the semantic rating analysis, meaning they are general, everyday words. These results highlight possible issues when using a semantic rating scale to identify technical vocabulary. This, and other limitations of the study, will be discussed further in Chapter 8.

In addition to validating the word lists, it is also important to critique them (Coxhead et al., 2018; Nation, 2016). Nation (2016, pp. 131-132) provides a framework for critiquing a created word list, focusing on the key aspects: focus, purpose, unit of counting, corpus, main word lists, other lists, making the lists, self-criticism, and availability. Following Coxhead et al's (2018) summary of their fabrication word list, Table 6.14 details the specifications of the technical spoken rugby word list.

Table 6.14: Specifications for the technical spoken rugby word list

Focus	Description of the list
Purpose	Technical vocabulary of spoken rugby discourse; Learners playing or coaching in the New Zealand rugby setting; second language learners of English; learners with little technical knowledge of the field; teachers and learners in an ESP rugby course
Unit of counting	Types
Corpus	Spoken corpus of spoken rugby discourse; TV commentary corpora (35,658 tokens); Interactional corpora (25,637 tokens)
Main word list	Related types list with headwords based on semantic rating and frequency
Making the list	Mixed-method: corpus-based with frequency principle and semantic rating scale analysis; only frequency was used, no range
Criticisms	Small corpus; no range measures because of the small corpus; no replication of the word list for validation; lack of generalisability
Availability	See Appendix 17; contact the researcher
Function words	Not included in the list

The results of this section show that the 252 technical spoken rugby word list and 226 technical written rugby word lists cover a relatively large amount of vocabulary in spoken and written rugby discourse. In turn, the results revealed the technical word lists account for little general English, indicating the items are more technical in rugby. The following section continues the investigation into technical vocabulary, examining the nature of technical MWUs in spoken and written rugby.

6.4.7 What are the most frequent technical MWUs in spoken rugby discourse?

Research question 12 pertains to the most frequent technical MWUs in spoken and written rugby discourse. First, the most frequent spoken MWUs are presented, followed by the written MWUs. To restate the methods used to create the technical MWU lists, four principles were applied to identify technical MWUs in the corpora:

1. Between two and five word units
2. Word type
3. Frequency of five or more times in the corpora
4. Contains a technical word from the single spoken or written word rugby list.

Following these principles, a provisional spoken MWU list of 414 entries was created. Then, the word list was analysed for any overlapping units, that is, when smaller MWUs also occur in larger units. For example, *to kick* (2) also appears in *the intention to kick* (4), and *intention to kick at goal* (5). Following a process which was used in previous studies (Byrd & Coxhead, 2010; Wood & Appel, 2014), the root structure of the MWU was highlighted according to its frequency, and the variables placed in brackets either end of the structure. For example, in the five-word unit, *'is the sum of the'*, the root structure was identified by its frequency as *'the sum of'* and the variable slots were *'is'* and *'the'*. Therefore, the MWU was presented as *'(is) the sum of (the)'*. Once analysed, a 267 technical spoken MWU list was created.

Table 6.15 provides a summary of the technical spoken MWU list. From the 267 word list, 239 root structures are identified (e.g. *set piece*, *to throw*, *the pressure*). Of these root structures, 174 are stand-alone (e.g. *The penalty*, *bonus point*, *clean out*), meaning they do not have a variable either side of the root structure. The majority of the root structures are two words, such as *inside pass*, *weighted kick*, and *ball back*. Of the 174 stand-alone MWUs in the word list, 154 are two-word units. For ease of reading, the variables are italicised.

Table 6.15: Summary of the technical spoken MWU list

Information	Number	Example
Root structures	239	Set piece, to throw, the pressure
Stand-alone root structures	174	The penalty, bonus point, clean out
Variables before root structure (variable is in italics)	58	<i>In the</i> first half, <i>in from</i> the side, <i>back on</i> the inside

Variables after root structure (variable is in italics)	27	Hands it <i>off to</i> , close to <i>the line</i> , swings it <i>away</i>
Variables before and after root structure (variable is in italics)	8	<i>Over</i> the top <i>of</i> , <i>into</i> the arms <i>of</i> , <i>number</i> minutes remaining <i>in the game</i>
Total number of MWUs	267	Good kick, front row, quick hands

Table 6.16 provides one example of how both the spoken and written MWU list are presented. The example is from the spoken MWU list for the root structure ‘*the ball*’. The entire spoken MWU list can be seen in Appendix 19. Table 6.16 shows that for ‘*the ball*’, there are 15 MWUs and 10 root structures. All variables for the MWU occurred before the root structure.

Table 6.16: Example MWU for the root structure ‘*the ball*’

Variable	Root structure	Variable
<i>Over</i>	the ball	
<i>Off</i>	the ball	
<i>Got</i>	the ball	
<i>Onto</i>	the ball	
<i>Past</i>	the ball	
<i>With</i>	the ball	
	ball in hand	
	ball back	
	quick ball	
	ball now	
	foot ball	
	go forward ball	
	our ball	
	ball is loose	
	with ball	

6.4.8 What are the most frequent technical MWUs in written rugby discourse?

Following the same procedure as in Section 6.3.7 for the MWU technical spoken list, the multiword unit technical written list was created. Table 6.17 details a summary of the 847 MWUs in this list. In total, the MWU list has 417 root structures (e.g. *player is put onside*, *the touch judge*, *a player carrying the ball*). Of these structures, 168 are stand-alone (e.g. *Not straight*, *forming a scrum*, *period of suspension*), meaning they do not have a variable either side of the root structure. Interestingly, there are far more variables before the root structure, with 450 variables (e.g. *The kick* is disallowed, *goes directly* into touch, *to the non-offending team*), occurring before rather than after, with 218 variables (e.g. Retire behind *the offside line*, *is kicked directly into touch*, *a try is scored*). For ease of reading, the variables are italicised.

Table 6.17: Summary of the technical written MWU list

Information	Number	Example
Root structures	417	Hindmost player, the flag, is penalised
Stand-alone root structures	168	Not straight, forming a scrum, period of suspension
Variables before root structure (variable is in italics)	450	<i>The kick</i> is disallowed, <i>goes directly</i> into touch, <i>to the non</i> offending team
Variables after root structure (variable is in italics)	218	Retire behind <i>the offside line</i> , <i>is kicked directly into touch</i> , <i>a try is scored</i>
Variables before and after root structure (variable is in italics)	86	<i>First to ground the ball</i> , <i>in possession of the ball</i> , <i>a front row player</i>
Total number of MWUs	847	Player is put onside, the touch judge, a player carrying the ball

The full technical written MWU list is in Appendix 20. Further discussion to describe how the spoken and written MWU lists can be applied to the language classroom can be found in Chapter 7. In brief, this section shows the content of two technical MWU lists for spoken

and written rugby discourse. The following section presents the results of the receptive knowledge task conducted in the online survey.

6.5 Receptive knowledge of technical vocabulary

The results of the previous section confirm technical rugby vocabulary occurs throughout spoken and written rugby discourse. Knowledge of both the technical single words and MWUs will affect L2 players' or coaches' communication and ability in the L2 rugby community. Understanding the receptive knowledge of technical rugby vocabulary will assist in creating specific materials to be used in conjunction with the single and MWU lists. Furthermore, such research provides further evidence for the importance of technical word lists. The following subsections present the results of the vocabulary receptive knowledge task conducted in the linguistic needs analysis survey to answer research question 13. To restate the method used to collect this data; within the online survey, 77 participants completed two receptive knowledge tasks designed to determine the receptive knowledge of technical rugby single words and MWU units. From the 77 participants, 29 were L1 English speakers (hereafter, L1) and 48 were L1 Japanese speakers (hereafter, L2).

In the first task, participants were shown a list of 30 single words and asked to highlight any they recognised or believed to be closely related to rugby. The list contained 15 single words, identified from the semantic rating analysis (see Section 3.6) as technical and 15 general single words are from Nation's (2012) BNC/COCA 25,000 word list that did not occur in the spoken and written rugby corpus. In the second task, participants were shown a list of 30 MWUs and asked again to highlight any they recognised to be closely related to rugby. The 15 technical MWUs occur in the spoken MWU list and the 15 general MWUs are from the spoken section of the Academic Formulas List (Simpson-Vlach & Ellis, 2010) do not occur in the spoken rugby corpus, and are therefore not technical.

6.5.1 Receptive knowledge of single technical rugby words

Table 6.18 presents the overall results of the 15 technical single words from the 77 participants who completed the task. From the 15 technical words, L1 speakers (N=29) mean score was 13 (86.66%) and L2 speakers (N=48) mean score was 6.6 (44.22%). The Mann-Whitney U test was conducted to compare the sample means of the two groups.

Table 6.18 shows there was no statistical significance between L1 and L2 speakers ($P=.522$). This result means L1 and L2 speakers' receptive knowledge of technical single words is similar.

Table 6.18: Summary of technical single word receptive knowledge task

Participants	Mean (15)	Standard Deviation	Significance ($p<.05$)
L1 (N=29)	13 (86.66%)	2.92	$P=.522$
L2 (N=48)	6.6 (44.02%)	4.04	

Table 6.19 presents the individual results found for each of the 15 technical single words in the task. The table is organised by the items' semantic rating, as it was originally hypothesised the degree of technicality may be a factor affecting the participants' receptive knowledge. However, as Table 6.19 shows, technicality was not a factor. The results of each word were analysed using Chi-Square test to assess the statistical significance of the scores for L1 and L2 speakers. Additionally, as multiple comparisons of the same data set were performed, a Bonferroni correction test was conducted to adjust the critical p-value ($P=.0017$). As can be seen from Table 6.19, 12 of the 15 words (*penalty, momentum, intercept, jersey, back, winger, halfback, breakdown, ruck, lineout, tighties, and loosies*) were smaller than the p-value, which indicates there is a significant difference between L1 and L2 speakers' receptive knowledge of these words. Upon further analysis of the 12 words, both their rating from the semantic rating scale (see Section 3.6) and where they occur in Nation's (2012) BNC/COCA base word lists, the proper nouns, marginal words, compounds, abbreviations lists, and rugby base word list, do not present a clear reason why these words are significant.

Table 6.19: Results of the technical single words from the receptive knowledge task

Word	Semantic rating scale	BNC/COCA list	L1 (N=29)	L2 (N=48)	Significance (p<.0017)
defence	2	2	26 (89.65%)	40 (83.33%)	p=.236
penalty	2	3	26 (89.65%)	30 (62.5%)	p=.004
momentum	2	4	22 (75.86%)	14 (29.16%)	p<.0001
intercept	2	5	28 (96.55%)	17 (35.41%)	p<.0001
jersey	2	6	22 (75.86%)	8 (16.66%)	p<.0001
offload	3	13	25 (86.20%)	33 (68.75%)	p=.085
back	3	2	26 (89.65%)	16 (33.33%)	p<.0001
winger	3	8	28 (96.55%)	11 (22.91%)	p<.0001
halfback	3	15	27 (93.10%)	19 (39.58%)	p<.0001
breakdown	3	33	21 (72.41%)	28 (58.3%)	p<.0011
scrum	4	11	27 (93.10%)	35 (72.91%)	p=.0302
ruck	4	14	28 (96.55%)	29 (60.41%)	p=.0005
lineout	4	17	27 (93.10%)	26 (54.16%)	p=.0003
tighties	4	20	19 (65.51%)	6 (12.5%)	p<.0001
loosies	4	35	24 (82.75%)	5 (10.41%)	p<.0001

Another important point to note from Table 6.19 is the range of scores for the words. L1 speakers had almost full knowledge of the technical words and had a narrow range of scores with a standard deviation of 2.92, as presented in Table 6.18. The highest score was 28 of the 29 (96.55%) L1 speakers stating they know *ruck* and *winger*.

For L2 speakers however, there was a much wider range of scores, with a standard deviation of 4.04 and 40 of the 48 (83.33%) L2 participants knowing the word *defence*, to only 5

(10.41%) knowing the word *loosies*. This result shows there is a wide range of technical vocabulary knowledge among L2 rugby speakers.

In addition to the 15 technical rugby single words in the task, 15 general words from Nation's BNC/COCA base word lists 1-3 that did not occur in the spoken rugby corpus were used as distractors. These words are analysed to ascertain if they were effective distractors and if they affected the recognition of technical items. Table 6.20 presents the overall results. Of the 15 general words, L1 speakers (N=29) mean score was 1.44 (9.6%) and L2 speakers (N=48) mean score was 0.77 (5.13%). The Mann-Whitney U test was again used and the results show there was no statistical significance between L1 and L2 speakers ($P=.818$). Table 6.19 and 6.20 show that overall, both L1 and L2 speakers can distinguish between technical rugby single words and general words.

Table 6.20: Summary of distractors in the single word receptive knowledge task

	Mean	Standard Deviation	Significance ($P<.05$)
L1 (N=29)	1.44 (9.6%)	1.47	$p=.818$
L2 (N=48)	0.77 (5.13%)	1.03	

Fisher's Exact test was used to assess the statistical difference between L1 and L2 speakers scores of each word. The test is most applicable in this analysis due to the small sample sizes. Using the adjusted critical p-value ($P=.0017$) obtained from Bonferroni correction test, only one distractor (*concentrate*) had a smaller p-value ($p<.0001$). The results of this research show there is no significant difference between L1 and L2 speakers' receptive knowledge of technical rugby single words. The following section details the findings of the second segment of the receptive task, which investigated the receptive knowledge of technical MWUs.

6.5.2 Receptive knowledge of technical rugby Multiword Units

Table 6.21 presents the overall results of the 15 technical MWUs from the 77 participants who completed the task. As with single words, L1 speakers have a higher receptive knowledge of technical MWUs than L2 speakers. L1 speakers (N=29) mean score was 12.03

(80.19%) and L2 speakers (N=48) mean score was 4.45 (29.66%). The Mann-Whitney U test showed there was statistical significance between the two groups ($p=.0042$).

Table 6.21: Summary of technical MWU receptive knowledge task

Group	Mean	Standard Deviation	Significance ($p<.05$)
L1 (N=29)	12.03 (80.19%)	3.32	$p=.0042$
L2 (N=48)	4.45 (29.66%)	3.73	

Table 6.22 presents the individual results for each of the 15 technical MWUs in the task. Using the Chi-Square test and critical p-value ($P=.0017$) from the technical single word task, 14 of the 15 MWUs (second half) was smaller than the critical p-value. These results further illustrate the disparity of receptive knowledge between the two groups.

Overall, the results in Tables 6.21 and 6.22 confirm L1 speakers' receptive knowledge of these technical MWUs is greater than L2 speakers.

Table 6.22: Results of the technical MWUs from the receptive knowledge task

MWU	L1 (N=29)	L2 (N=48)	Significance ($P<.0017$)
on the outside	24 (82.75%)	17 (35.41%)	$p<.0001$
bit of space	23 (79.31%)	16 (33.33%)	$p<.0001$
works it away to	14 (48.27%)	3 (6.25%)	$p<.0001$
inside the twenty-two	27 (93.10%)	13 (27.08%)	$p<.0001$
first half	27 (93.10%)	28 (58.33%)	$P=.0010$
second half	26 (89.65%)	35 (72.91%)	$P=.0794$
let's go boys	18 (62.06%)	12 (25%)	$P=.0012$
on the inside	28 (96.55%)	19 (39.58%)	$p<.0001$
on the ground	26 (89.65%)	15 (31.25%)	$p<.0001$
over the ball	24 (82.75%)	14 (29.16%)	$p<.0001$
advantage line	25 (86.20%)	11 (22.91%)	$p<.0001$
ball in hand	26 (89.65%)	14 (29.16%)	$p<.0001$

snapped up	25 (86.20%)	7 (14.58%)	p<.0001
taken down	24 (82.75%)	7 (14.58%)	p<.0001
knock on	12 (41.37%)	3 (6.25%)	p<.0001

Table 6.23 shows both L1 and L2 speakers were not distracted by the 15 general MWUs in the task. L1 speakers' (N=29) mean score was 3.3 (22%) and L2 speakers' (N=48) mean score was 3.33 (22.2%). The Mann-Whitney U test showed there was no statistical significance between L1 and L2 speakers (P=.32).

Table 6.23: Summary of distractors in the MWU receptive knowledge task

	Mean	Standard Deviation	Significance (P<.05)
L1 (N=29)	3.3 (22%)	1.23	P=.32
L2 (N=48)	3.33 (22.2%)	3.65	

Fisher's Exact test was again used to assess the statistical difference between L1 and L2 speakers' scores for each word. None of the 15 words were statistically significant.

As with technical single words, receptive knowledge of MWU is significantly different between L1 and L2 speakers, showing that overall, L2 speakers' receptive knowledge of technical rugby vocabulary is significantly lower than that of L1 speakers. With a lack of technical vocabulary knowledge, communication will be affected. This finding is confirmed by the results from Section 5.5, that noted listening difficulties occur throughout spoken rugby discourse. Based on these results, implementation of a structured framework to teach technical rugby single and MWUs in an ESP rugby course is critical to address the lack of receptive knowledge. Methods to implement such a framework are discussed in Chapter 7.

6.6 Chapter summary

This chapter presented the results from four aspects pertaining to vocabulary in rugby discourse: the lexical profile of spoken and written rugby discourse, the vocabulary load of spoken and written rugby discourse, the creation of technical single word and multiword lists and the technical vocabulary coverage in spoken and written rugby discourse, and the

ability to select technical from non-technical vocabulary in a receptive knowledge task. Overall, this chapter presents five main findings that could have implications for L2 rugby players' and coaches' acquisition of vocabulary for rugby discourse.

The first finding concerns the lexical profile of the spoken and written rugby corpus along Nation's (2012) BNC/COCA word lists and the coverage of Schmitt and Schmitt's (2014) high, medium, and low frequency vocabulary. The analysis shows both corpora consist of high frequency vocabulary, with 89.43% of the spoken corpus and 93.63% of the written corpus occurring in the first three 1,000 word families. Two lexical differences between the TV commentary and Interactional corpora may cause comprehension difficulties for L2 learners. TV commentary contains a large number of proper nouns (9.71%), such as names of players and teams, whereas the Interactional corpora contains marginal words (3.39%), such as swearing.

The second main finding shows written rugby discourse is lexically more demanding than spoken rugby discourse. To reach 98% cumulative coverage in spoken rugby discourse, comprehension of the 4,000 word families plus Nation's (2012) supplementary word lists of proper nouns, marginal words, compounds, abbreviations and the created rugby vocabulary base word list is needed. In written rugby discourse, 11,000 word families plus Nation's (2012) supplementary word lists and created rugby vocabulary base word lists is needed. The disparity between the two vocabulary loads means more explicit instruction and time is needed in the language classroom for L2 learners to comprehend both spoken and written rugby discourse.

The third finding relates to the development of a spoken and written technical rugby single word list. The spoken single word list consists of 252 word types and the written single word list contains 226 word types. The lists were divided into three sub-lists according to their semantic ratings. The semantic rating analysis showed the overall coverage of the technical single word lists in the respective corpora are high, with 12.04% in the spoken corpus and 35.41% in written corpus. In addition, the technical single spoken word lists' coverage in the spoken section of the British National Corpus (Aston & Burnard, 1998) (2.81%) and the Wellington Corpus of Spoken New Zealand English (Holmes, Vine, Johnson, 1998) (2.99%)

indicates that the technical items do not frequently occur in general English. Such a high density of technical single words in the spoken and written corpora and low coverage in general English indicates why communication may be challenging for L2 learners, as shown in Chapter 5. This result will be discussed in Chapter 7 to highlight the importance of technical vocabulary in spoken and written specialized English.

The fourth finding relates to the development of two MWU lists. The spoken MWU list contains 267 units and the written MWU list contains 847 units. The lists were created using frequency principles and the technical single word lists. The list's importance is highlighted by the fact they were designed to be used in conjunction with the single-word lists. These findings, along with the results from Section 5.2, be used in Chapter 7 to discuss the importance of MWUs in the spoken and written rugby domains.

The final finding presented in this chapter concerns the receptive knowledge of technical rugby vocabulary. The results showed L1 speakers' receptive knowledge is significantly higher for both technical single words ($P < .00$) and MWUs ($P < .02$) than L2 speakers. There was no clear evidence related to the level or semantic meaning of the technical words, indicating that overall, L2 speakers' receptive knowledge is low. These findings, along with the linguistic needs analysis results, will be discussed in Chapter 7 to ascertain why technical vocabulary is difficult for L2 learners.

Chapter 7 Discussion

7.1 Introduction

Chapters 4, 5, and 6 have presented the findings for the two phases to answer the research questions, as well as the main findings that have emerged. This chapter will now discuss spoken rugby and technical vocabulary as two important topics in relation to these findings. Spoken rugby is central to the present thesis, encompassing the results of each phase. The second topic concerns the broader context of both spoken and written technical vocabulary in learning and teaching. Finally, this chapter will address pedagogical implications from the findings and describe an example ESP course created to meet the needs of L2 players and coaches.

7.2 What is the value of spoken discourse in the rugby context?

The importance of spoken discourse in the rugby context is clearly demonstrated throughout the study in the present thesis. This section will look at spoken discourse in rugby, focusing on the places and people in which spoken rugby is critical (Section 7.2.1) and the varying language aspects in spoken rugby discourse (Section 7.2.2). The importance of written discourse in rugby (Section 7.2.3) will also be discussed.

7.2.1 Who, when, and where is spoken discourse most important in rugby?

For rugby players, spoken comprehension is critical on and off the pitch. As Kellerman, Koonen & Van der Haagen's (2005) linguistic needs analysis noted, all participants believe good communication is an essential component for playing football. The findings of the present study further establish this notion in the rugby context, showing the importance of spoken comprehension when playing the game or when practising the sport.

For rugby players, the most important time for communication is during a game. If teammates are unable to successfully comprehend each other, instructions for set plays, such as a lineout or phases of play after the lineout, may not be understood and in turn, the play will fail. Results from the linguistic needs analysis showed 55% of L1 (N=33) and 68% of L2 (N=17) players note experiencing speaking difficulties while playing the game. A lack of

both every day and technical vocabulary, in addition to fluency, were noted as the main language aspects affecting communication. Furthermore, the most utilised strategies in the rugby context, such as *repeating a sentence* or *speaking in simple English/Japanese*, are difficult to use while playing a game. Therefore, the results illustrate how players need explicit assistance in developing both their productive knowledge of technical MWUs and fluency to assist with comprehending areas such as instructions from teammates. Research has shown the importance of technical MWUs in spoken discourse (Biber et al., 2004; McCarthy & Carter, 2002). Studies have particularly noted that being proficient in specialised MWUs is of utmost importance for communication (Wray, 2002). Furthermore, research has shown how MWUs are linked to fluency (Boers et al., 2006). Therefore, within an ESP rugby course, a combination of implicating the technical spoken MWU list, as well as providing opportunities for fluency development, is critical to players' success in the foreign rugby community. How the technical spoken MWU list and fluency activities can be implemented into such a course will be further discussed in Section 7.4.

Unlike players, where spoken discourse is critical while both practising and playing rugby, for coaches, the main time for communication is at practice. Heath and Lagman (1994) note there is little time for coaches to converse during the game and instead, their main time to communicate is during practices. With the results of the online survey noting that practice can be up to 36 hours a week, spoken discourse between coaches and players primarily occurs in this situation. As the semi-structured interviews revealed, during practices affords building *connection* between the coach and player which is necessary to motivate, and hopefully, improve the players' level of rugby. However, as both speaking and listening language difficulties occur most with the coach during practice, the goal of connecting to players could be affected. A large amount of time spent in practice allows for the two strategies, *repeating the sentence* and *speaking in simple English/Japanese*, to be used by coaches and players. However, without the productive knowledge of general and technical vocabulary, coaches will be restricted when gaining information, questioning players, using analogies, or using imagery statements. To solve this issue, principled and careful use of the technical word lists into the rugby language classroom would help coaches with learning the vocabulary required to communicate with players. Further discussion of how the technical word lists can be implemented in the classroom context will be presented in Section 7.4.

The results of the needs analysis confirmed with Wilson (2011), that not only is rugby primarily spoken, but also communication breakdown occurs for both L1 and L2 players and coaches. Gathering information from L1 'domain experts' (Long, 2005b) assisted in fully understanding the needs of L2 speakers and how language difficulties affected communication. The needs analysis revealed that because of these language difficulties, both L1 and L2 players and coaches were affected, with one possible reason being that rugby is a team sport. As camaraderie between all members of the team is important to the success of the team (Wilson, 2011), if all players and coaches in the team cannot communicate effectively, communication breakdown has an effect on everyone.

Vocabulary in spoken rugby discourse was noted by both players and coaches as the main cause of these language difficulties, with the receptive knowledge task further highlighting the disparity between L1 and L2 speakers' understanding of technical vocabulary. Moreover, as technical vocabulary is important for the user to join a particular community (Coxhead, 2013; Woodward-Kron, 2008; Wray, 2002), one of the main goals of the players and coaches is to acquire both receptive and productive knowledge of vocabulary to become a member of the group. This, in turn, will improve spoken discourse between L1 and L2 speakers. To assist learners, activities that focus on meaning, both input (listening) and output (speaking) (Nation, 2007) would assist in the acquisition of vocabulary necessary for spoken communication in the situations where difficulties are occurring (*at practice* and *during the game*). Implementation and examples activities that can be used in a rugby language classroom will be further discussed in Section 7.4.

7.2.2 What language aspects are important for spoken discourse in rugby?

With regard to language aspects, comprehension of general high frequency, proper nouns, marginal words, and technical vocabulary is important in spoken rugby. The vocabulary load analysis shows that 97.78% of the 61,336-word spoken corpus occurs in the first 3,000 word families (plus proper nouns and marginal words). This is in line with other studies that investigated the vocabulary load in spoken contexts (Coxhead & Demecheleer, 2018; Webb & Rodgers, 2009a, 2009b) with research showing knowledge of the first 3,000 word families is critical for comprehension in spoken discourse (Adolphs & Schmitt, 2003; Dang et al., 2017). However, upon further analysis of the spoken rugby corpus and other spoken

corpora, there are differences between the coverage of the first 3,000 word families in each corpus. As Table 7.1 shows, coverage of the first 3,000 word families is the lowest in spoken rugby discourse with 89.94%, compared to television programs (91.46%) (Webb & Rodgers, 2009b), movies (92.39%) (Webb & Rodgers 2009a), and plumbing (94.99%) (Coxhead & Demecheleer, 2018). This means spoken rugby discourse contains the least number of high frequency words and, as such, may be more difficult for beginner players and coaches.

Table 7.1: Coverage of the first 3,000 word families in spoken corpora

Study	Context	Coverage of 3,000 word families (BNC/COCA)
Rugby spoken corpus	Rugby	89.94%
Webb & Rodgers (2009b)	Television programs	91.46%
Webb & Rodgers (2009a)	Movies	92.39%
Coxhead & Demecheleer (2018)	Plumbing	94.99%

To achieve 95% coverage in spoken rugby, a wider range of vocabulary is needed; specifically, knowledge of proper nouns and marginal words. Table 7.2 below compares the coverage of proper nouns and marginal words in the entire spoken rugby corpus, the two sub-corpora (TV commentary and Interactional corpora), and the three other spoken corpora, as noted above. Table 7.2 first shows the rugby spoken corpus contains over double the coverage of proper nouns, with 6.39%, compared to the three non-university spoken corpora. Coverage of marginal words was also higher in the rugby spoken corpus, with 1.63%, for a combined proper nouns and marginal words total of 8.02%.

Table 7.2: Coverage of proper nouns and marginal words in spoken corpora

Study	Context	Proper nouns	Marginal words	Total
Rugby spoken corpus	Rugby	6.39%	1.63%	8.02%
TV commentary corpus	TV commentary	9.71%	0.36%	10.07%
Interactional corpus	Interactional	1.77%	3.39%	5.16%

Webb & Rodgers, 2009a	Movies	2.67%	0.70%	3.37%
Webb & Rodgers, 2009b	Television programs	2.96%	1.03%	3.99%
Coxhead & Demecheleer (2018)	Plumbing	0.47%	0.36%	1.03%

The coverage of proper nouns in spoken rugby is particularly high in TV commentary, with 9.71%. This percentage of coverage means knowledge of players and teams names is critical to reach the minimum 95% coverage needed for spoken comprehension (Adolphs & Schmitt, 2003). In line with Kobeleva's (2012) study, unfamiliar proper nouns, such as names or teams, can potentially affect listening comprehension.

The following excerpt from the TV commentary corpus highlights the complexity and frequency of proper nouns in TV rugby spoken discourse. The proper nouns are underlined for ease of recognition.

Down field goes the clearing kick, fielded by Patrick Osborne. Now here is Banks. This one will come down just on the Rebels side of half way and very early commitment by Mafi and he fell rather awkwardly and he has stayed down for the moment anyway. And here is Hodge he has got a very good boot on him he needs it in this situation oh has he got it out? No. So, it sits up, oh and a misunderstanding between Fekitoa and Osborne. Fekitoa has not been put away yet. Got the pass off, fielded by Hunt for the Highlanders. Now Aaron Smith gets it away to Liam Coltman assisted by Wheeler. Aaron Smith again. Hunt, he is involved early. Ten minutes gone first half. Smith gets it off now to Seiuli for the Highlanders. Now here is Fekitoa. Osbornes got no room and in fact he has stood on the line and so it will be a lineout.

(Grant Nisbett – Highlanders vs. Rebels 31/03/2017)

The excerpt shows that team names (e.g. *Rebels, Highlanders*) and players, both first (e.g. *Aaron, Patrick, Liam*) and last names (e.g. *Osbourne, Smith, Fekitoa*) are present; in some cases, only the surname is used while at other times, the player's full name is called. In total, this 161-word excerpt contains 15 (9.31%) different proper nouns. To comprehend this excerpt, learners will need knowledge of 14 of the proper nouns. Given there are 23 players in one team, this would mean there is a possibility for 92 player names (first and last name) occurring in the TV commentary. Although studies indicate pre-teaching unfamiliar vocabulary can directly affect the comprehension of the text (Kobeleva, 2012; Wixson, 1986), this is not possible in the rugby context due to the sheer number of players that an L2 learner may encounter when watching a rugby game on television. Instead, the explicit teaching of lexical cues, such as how MWUs can aid in recognising that a proper noun is being used, will be the most effective approach for comprehension. For example, the excerpt above provides two such MWUs structures (fielded by____, _____gets it away to _____) that could be taught to learners. Therefore, the technical spoken MWU list can be utilised further in the rugby language classroom to solve this issue, and will be further discussed in Section 7.4.

Table 7.2 also shows that there is a higher coverage of marginal words in spoken rugby discourse, at 1.63%, than in other non-university domains (see Table 7.2). This coverage is more than in the three non-rugby corpora. When looking at the sub-corpora of the spoken rugby corpus, the coverage of marginal words is particularly high in the Interactional corpus, at 3.39%. This means that knowledge of marginal words is critical to achieve a 98% comprehension threshold. The following excerpt from the interactional corpus illustrates what type of marginal words are occurring and their frequency in certain contexts. The marginal words are underlined.

It was fucking ugly, but at least we got a win alright? It would be way more fucking harsh if we did not fucking get a double you eh? Let's just take into how fucking shitty we played and how better we are than these cunts eh. So, if we come against a low, low grade game like uh like fucking Avalon next week, we fucking step up, we do not play to their shit, alright.

This excerpt shows that swear words are the main type of marginal word occurring in team-based speech acts and are used as “multifunctional, pragmatic units” (Dewaele, 2005, p.480), such as discourse markers, emotional indicators, or even to affirm in-group membership (Wilson, 2009c). Therefore, for L2 speakers, it is important to understand the function of swear words in spoken rugby discourse, as well as being able to accurately use them. L2 speakers in the New Zealand rugby community may find the use of swear words difficult at first, as the following excerpt from a foreign speaking player in New Zealand explains, the swear word *fuck* distracts the listener from the meaning of the sentence.

IP7: *Yeah we don't have like, so, 'fuck' is, 'fuck' makes us very confused because even we don't understand English and then 'fuck' all of the time in the conversation you can't catch another word*

Interviewer: *You can't follow?*

IP7: *So, it is like blah blah 'fuck' blah blah 'fuck'.*

Interviewer: *It breaks up the sentence?*

IP7: *Oh yeah, yeah. So, if there was no 'fuck' then we can understand then suddenly 'fuck' then we are like, 'huh'?*

For L2 learners, these results show marginal words, such as swear words, are critical in spoken discourse because of the high coverage in team-based speech, which can in turn, distract players from comprehending.

This thesis shows that L2 speaking players and coaches need assistance to achieve a minimum 95% comprehension threshold (Van-Zeeland & Schmitt, 2013), and effectively understand swear words in spoken rugby discourse. One method for explicitly teaching swear words is by drawing on a range of authentic visual and audio material, which will allow learners to become familiar with the usage of these words (Weyers, 1999). Further explanation of how such materials can be integrated into an ESP rugby course will be discussed in Section 7.4.

7.2.3 What is the importance of written rugby discourse?

Written rugby discourse is not as important to players and coaches, compared to spoken discourse. From the needs analysis, the results showed L2 speakers do not have any difficulties with written rugby discourse. As shown in Chapter 4, none of the items in the survey asked participants about language difficulties occurring in the rugby written discourse. This is because the piloting of the survey indicated that written discourse was not important to players. Instead, participants were provided with space to write about any additional difficulties after each item, as well as space at the end of the survey to write additional comments. None of the participants noted any additional language difficulties related to written rugby discourse.

Written texts are not important when acquiring rugby language. The results in Chapter 5 revealed written materials, such as rugby articles and magazines, are seldom used by participants to acquire rugby language as they believe written materials are not effective for acquiring the language. However, a vast amount of research has shown the importance of reading, both intensive (Nation, 2004) and extensive reading (Nation, 2015), when learning a language and acquiring vocabulary (Nation, 2009b, 2013, 2015). Therefore, although the results indicate written materials are currently not used by L2 learners, such materials will be beneficial for not only learning general high frequency vocabulary, but also newly acquired technical rugby vocabulary. Currently, there is a gap in written materials tailored for L2 rugby players and coaches.

The main instance where written discourse is important in rugby is for coaches attending coaching development courses. In the results of the needs analysis, both the online survey and in a semi-structured interview, it was revealed that coaches regularly attend coaching development courses, in which a large amount of discussion occurs, along with reading materials (see Appendix 16 for a sample transcript from a foreign coach in Japan who explains this in detail). As with other ESP contexts, reading is used in the rugby context to acquire unknown knowledge of community discourse (Hirvela, 2012). For coaches, this is information, such as the Laws of the Game, and new coaching procedures. Again, knowledge of vocabulary, both general and technical vocabulary in written discourse, is critical. Although the coverage of high frequency general vocabulary is similar to that of

spoken rugby discourse (88.33%), coverage of technical single-words in written discourse is far higher, with 35.41% compared to 12.04% in spoken discourse. MWUs in written discourse total 847, which is over three times the MWUs found in spoken rugby discourse, at 267. These results further show the importance of using written materials that contain this type of vocabulary. Section 7.4 describes a number of tailored intensive and extensive reading materials for use in an ESP rugby course.

7.2.4 Summary

In sum, this section highlights the importance of spoken discourse to both L1 and L2 players' and coaches' performance in the domain. Players need assistance in fluency development and vocabulary acquisition that focuses on playing in the game and practising the sport. For coaches, vocabulary acquisition is needed so they *connect* with players during practice. Furthermore, this thesis emphasizes that various aspects of vocabulary need to be explicitly taught to L2 players and coaches in the rugby language classroom through a communicative approach. These will be discussed more in Section 7.4. Finally, although the needs analysis revealed written rugby discourse is not common amongst players, it is important for coaches and their professional development. The next section will now turn to the broader context of spoken and written technical vocabulary in learning and teaching.

7.3 What is the value of technical vocabulary in rugby?

Through the present thesis, the importance of technical vocabulary in spoken and written rugby discourse and the need to acquire this type of vocabulary is clearly demonstrated. From the findings in Chapters 4, 5, and 6, the following subsections will discuss the topic of technical vocabulary in rugby. First, I will discuss the importance of technical rugby vocabulary from a lexical coverage perspective (see Sub-section 7.3.1). Then, I will explore how the various types of technical vocabulary, such as fully technical vocabulary and technical vocabulary in the general high frequency bands, are important (see Sub-section 7.3.2). Finally, I will discuss the importance of the technical rugby word lists for addressing L2 rugby players' and coaches' linguistic needs (see Sub-section 7.3.3).

7.3.1 How much coverage does technical rugby vocabulary provide?

Recent studies in non-university contexts have advanced our understanding on how technical vocabulary plays an important role in specialised domains. As with this thesis, these studies have investigated the coverage of technical vocabulary within both the written and spoken context, finding written texts contain a higher load of technical vocabulary than in spoken discourse (Coxhead & Demecheleer, 2018; Coxhead et al., 2018; Lu, 2018). This thesis reinforces this research by showing that technical written vocabulary covers 35.41% of the written rugby corpus and technical spoken vocabulary covers 12.04% of the spoken rugby corpus (Table 7.3). This means approximately one in five tokens in written rugby and one in ten tokens in spoken rugby are technical in nature. Table 7.3 below shows earlier research investigating technical vocabulary in vocational and non-university disciplines reported similar coverages, with written coverage ranging between 29% and 35.41%, and spoken coverage ranging between 9% and 12.04%. It also shows results from the present study.

Table 7.3: Coverage of technical vocabulary in non-university disciplines

Study	Context	Written discourse coverage	Spoken discourse coverage
Coxhead, McLaughlin, & Reid, 2018	Fabrication	29%	9%
Coxhead & Demecheleer, 2018	Plumbing	33.17%	11.14%
Current thesis	Rugby	35.41%	12.04%

These results show both written and spoken materials provide opportunities to acquire technical rugby vocabulary. As noted above, tailored written materials, such as graded readers or articles, can be created for use in and out of the language classroom. However, spoken materials arguably provide more opportunity to acquire spoken technical vocabulary, particularly prior to playing in the foreign context. The lexical profile analysis revealed TV commentary speech contains a large amount of technical rugby vocabulary (11.93% coverage). As more rugby games are being broadcast in foreign speaking countries

such as Japan, incidental learning of technical rugby vocabulary can occur when L2 players and coaches listen to the English commentary. Furthermore, the use of TV commentary in the language classroom is one such method to provide learners with a large amount of input (listening) (Nation, 2007).

In brief, technical vocabulary provides a high coverage of the overall vocabulary in both written and spoken rugby discourse, with similar percentages found in other studies. Furthermore, in addition to playing or coaching rugby, TV commentary is an effective resource to expose learners to the necessary technical rugby vocabulary needed for comprehension. In the next subsection, the importance of the different types of technical rugby vocabulary will be discussed.

7.3.2 The importance of varying types of technical rugby vocabulary

Through investigating the lexicon of spoken and written rugby discourse, the results revealed three types of technical vocabulary are central in rugby discourse: technical words that are also in general high frequency vocabulary bands (Section 7.3.2.1), technical vocabulary that occurs only within rugby discourse (Section 7.3.2.2), and technical MWUs (Section 7.3.2.3). The importance of these three types of technical vocabulary will now be discussed in turn.

7.3.2.1 The importance of technical vocabulary from general high frequency bands

This thesis highlights the importance of general high frequency vocabulary in rugby and how a significant number are technical to the discipline. The lexical analysis conducted on the rugby corpora found that the majority of both the spoken and written technical single-word lists were from the general 3,000 high frequency vocabulary bands (Schmitt & Schmitt, 2014). Two-hundred and twenty-three (88.5%) word types of the 252 technical spoken word list and 196 (86.7%) word types of the 226 technical written word list are general high frequency vocabulary. This thesis advances the notion that general high frequency vocabulary can be technical in specialised domains as shown in medicine (Quero & Coxhead, 2018), pharmacology (Fraser, 2005, 2009), and applied linguistics (Fraser, 2005).

Furthermore, this thesis advances the research of identifying technical vocabulary within high, medium, and low frequency vocabulary bands through the use of a semantic rating scale. Earlier studies have applied and adapted Chung and Nation's (2003, 2004) to identify technical words in specialised domains, such as applied linguistics (Fraser, 2005), engineering (Hsu, 2014), and medicine (Quero, 2015). This study reveals the semantic rating scale can be successfully adapted to more specialised contexts within one discipline, such as rugby (see Chapter 8). By modifying Chung and Nation's (2003, 2004) semantic rating scale, this thesis sheds light on the significant number of high frequency general words that take on a technical meaning (e.g. *season*, *inside*) when used in the rugby domain. To restate, the semantic rating scale consisted of three scales (2, 3, 4) to rate items on their degree of technicality. For example, scale 3 contains words that are used in rugby, but have a particular meaning not frequently encountered in everyday usage (see Table 3.4 for an overview of the semantic rating scale). In the technical spoken word list, 75 of the 84 (89.28%) items rating in scale three are in the high frequency vocabulary band (see Appendix 17 for entire technical spoken word list in order of semantic rating). For L2 learners, these words are difficult for two reasons. First, comprehension in rugby can be affected if the technical meaning is unknown. Second, acquiring these words increases the learning burden, as learners need to know their multiple meanings. For example, for the word *season*, learners will need to know its general meaning (four periods in a year; spring, summer, autumn, and winter), as well as its technical meaning (when rugby is played, e.g. from February to June in New Zealand) when used in rugby. Therefore, it is important to incorporate these words into the language curriculum with both the word's general and technical meaning, in their respective contexts (Nation, 2013). This, in turn, will assist in the acquisition of this type of vocabulary. How these words will be integrated into a rugby language classroom will be further discussed in Section 7.4.

7.3.2.2 The importance of fully technical rugby vocabulary

Fully technical words are lexical items that exclusively occur in a domain. Although only a small amount of this type of vocabulary was found within the rugby corpora, knowledge of their meaning is critical when precise and accurate comprehension (i.e. reaching 99%-100% comprehension) is needed. This thesis drew on two methods to identify these fully technical words in the spoken and written corpora. The first method followed Coxhead and her

respective colleagues (Coxhead & Demecheleer, 2018; Coxhead et al., 2016; Coxhead et al., 2018) approach of identifying any lexical items that did not occur in Nation's (2012) BNC/COCA base word lists. This method revealed nine (0.07%) types in the spoken corpus and only one (0.04%) in the written corpora occurred solely in rugby. The second method used the adapted semantic rating scale (Chung & Nation, 2003) to identify technical words in the spoken and written rugby corpora. The analysis identified ten items from the spoken corpus and six items from written corpus as being in scale 4 (see Table 3.4 for an overview of the semantic rating scale). These are words that are unique to rugby and are only associated with rugby. Of the 16 lexical items identified through the semantic rating scale, only three (*loosehead, loosies, openside*) occurred in the created rugby base word list (words not in Nation's 2012(BNC/COCA word lists). The remaining 13 fully technical words were medium (4,000-8,000) and low (9,000-25,000) frequency words. These fully technical words could be challenging for L2 speakers as they either only occur within rugby discourse or are not frequent in general spoken or written discourse. Therefore, familiarity with such lexical items that occur only in the rugby context would help support learners' knowledge. How to explicitly teach these words to L2 speakers will be further discussed in Section 7.4.

Another component of fully technical vocabulary is private team speech. This component is rugby speech, which happens on the field when a team uses codes for particular moves in a game. Private team speech is one type of fully technical vocabulary that, although important to a team, does not occur in the Interactional corpus and would be extremely difficult to investigate. Team speech vocabulary is used exclusively by a team to communicate with each other so as the opposing team cannot understand specific instructions or upcoming set plays. Through my own experience playing for a number of rugby teams, it was emphasized to the entire team that this vocabulary was to be kept secret. In addition, it was common to change the vocabulary throughout the year so as opposing teams could not possibly interpret its meaning. An example of team speech would be a combination of numbers, lexical sets, such as food, and other meaningless items (e.g. 12, pizza, waffle, 2). Each word in the sequence would have a specific meaning, which team members would understand. Team speech can be different depending on the position you play in the team. That is, whether you play in the forwards or backs, or whether you are on the wing or a number 10.

Therefore, this means the amount of team speech a player needs to learn depends on a range of factors, including the team they play for or the position they play.

While Wilson's (2011) study was ground-breaking in gathering interactional recordings within a rugby team, due to confidentiality, recordings were not conducted during matches and sensitive data was scrambled. This means it is unclear how much team speech was used within the interactional domain. This is a limitation of the study, which is further discussed in Chapter 8. With every team having this unique lexicon, it is impossible to generalise and create such a word list. Although this thesis revealed a low coverage of fully technical vocabulary, it is certain that team speech plays a crucial role in spoken rugby discourse. There are two possible methods to deal with team speech in the rugby language classroom. First, vocabulary learning strategies, such as word cards (Nation, 2013) could assist both L1 and L2 speakers to remember this type of vocabulary. The second method would be to teach the fully technical vocabulary just as if the words were high frequency (Nation, 2013). However, this method would only be applicable for team speech technical vocabulary when the materials are designed exclusively for one team, due to confidentiality reasons. How team speech and fully technical vocabulary identified from the lexical analysis can be taught, will be discussed in Section 7.4.

7.3.2.3 The importance of technical Multiword Units

This study resulted in the creation of a technical spoken MWU list containing 267 units and a technical written MWU list containing 847 units. This high number of technical MWUs identified in the analysis indicate the importance of MWUs and reaffirms earlier studies that note the prevalence of technical MWUs in the rugby domain (File, 2013; Wilson, 2009a, 2009b). However, from a pedagogical standpoint, such a large number would be a significant learning burden for L2 speakers. Earlier studies on MWUs highlighted a significant amount of 3-word sequences (e.g. *the end of*) were found within 4- or 5- word sequences (e.g. *at the end of*) (Byrd & Coxhead, 2010; Wood & Appel, 2014). Following the same process of analysing MWUs to identify the common word string, or 'root structure' (Wood & Appel, 2014, p. 5), the final MWUs lists were edited to be much shorter. The spoken MWU list contains 239 root structures (e.g. *over the top of*) and the written MWU list contains 417 root structures (e.g. *the penalty kick is taken*). This is a reduction of 28 and

430 units, respectively. This thesis therefore reinforces the idea that identifying the root-structure of MWUs can create a pedagogically suitable list which helps address specific learner needs and reduce the learning burden to improve their communication.

The creation of the technical MWU lists can also assist L2 learners with learning lexical items from the single-word lists. Some frequently occurring technical single words in the word lists, such as a single word *knock* and *row*, may not make much sense by themselves. However, when these words are in a MWU, they have a clearer meaning (e.g. *knock on*, *back row*). With studies claiming some technical items cannot be learned in isolation (Lu, 2018; Pueyo & Val, 1996), this thesis provides more evidence that technical MWUs word list are beneficial alongside technical single words in the rugby language classroom to help the L2 learner acquire all the necessary knowledge of technical rugby vocabulary. Activities and materials that would use a combination of the word lists will be discussed in Section 7.4.

Finally, Chapters 4 and 5 revealed the importance of technical rugby MWUs for comprehension in rugby discourse. From the online surveys, *phrases*, such as *forward pass* in English and *throw forward* in Japanese, were noted as the main difference between varying rugby languages. As the spoken rugby corpus was created from audio recordings of New Zealand rugby English, the technical MWU lists will be most beneficial to speakers wishing to assimilate into that environment. Therefore, this finding highlights the need for more corpus analyses in various rugby contexts around the world, such as in England or South Africa, to create applicable single and MWU lists for L2 speakers to acquire the specific technical vocabulary for that rugby discourse. This possible future research facet will be further discussed in Chapter 8.

7.3.3 How can the technical rugby word lists meet the players' and coaches' needs?

Discipline specific word lists can help L2 learners to focus on the most important vocabulary needed in their domain (Durrant, 2013; Nation, 2016). Unlike general high frequency or academic word lists, these specific word lists reduce the learning burden as they contain the necessary vocabulary for proficiency in the discipline (Durrant, 2013). The results of this thesis concur with this argument in the following three ways.

First, the lexical profile analysis revealed both spoken and written rugby discourse primarily consists of general high frequency words. Coverage of medium and low frequency vocabulary was found to be extremely low, accounting for 2.15% of the total coverage in the spoken rugby corpus and 5.97% in the written corpus. These results mean that explicitly teaching the technical rugby word lists in a language classroom would better serve the unique lexical needs of L2 players and coaches, rather than focusing on medium and low frequency vocabulary bands which are revealed to be unnecessary (Durrant, 2013, 2016; Hyland & Tse, 2007).

Second, the semantic rating scale identified two types of vocabulary that will be difficult for learners to acquire without the use of a technical word list. Items identified in Scale 2 or Scale 3 on the semantic rating scale occur in everyday use but are also technical in the rugby domain. For example, *touch* in the rugby domain refers to the line on the side of the rugby field rather than the meaning of coming into contact with something. Words with multiple meanings would be confusing for an L2 rugby player or coach that did not know the technical rugby meaning. Studies on technical vocabulary also identified words with multiple meanings (Coxhead et al., 2016; Fraser, 2009; Watson-Todd, 2017). The technical rugby word lists allow L2 players and coaches to focus on the technical meanings of these items and on how the words are used within the specialised discipline. Therefore, this thesis provides more evidence that technical rugby word lists can better serve L2 players' and coaches' needs.

Third, the technical word lists will assist learners in focusing on the type of vocabulary that is most needed. The results of the linguistic needs analysis revealed both general and technical vocabulary are regarded by participants as the main language aspect needed for communication in rugby. The technical word lists contain the most frequent technical vocabulary in spoken and written rugby discourse, covering up to 35.41% of the text. Therefore, by integrating the technical word lists into an ESP course, L2 learners can learn the necessary vocabulary to communicate in the rugby context and, in turn, meet L2 players' and coaches' linguistic needs.

In brief, the results of this thesis support the idea that the technical rugby words lists will better serve L2 players' and coaches' needs. Furthermore, the three perspectives on high frequency words, semantic rating and technical word lists advocate the broader notion that discipline specific word lists are necessary to meet ESP learners' needs within their specialised domains. Therefore, there is a real need for more corpus-based research into the numerous non-university areas and subsequently create pedagogically beneficial technical word lists (Coxhead, 2018).

7.3.4 What is the value of explicitly teaching the technical rugby word lists?

The results of this thesis strengthen the idea that technical word lists better serve L2 learners' needs. Furthermore, using these word lists in the language classroom has been shown to be a valuable tool to increase the essential vocabulary knowledge needed for that specialised discipline (Clouston, 2013). For the rugby domain, explicitly teaching the technical vocabulary using the words lists are valuable for the following two reasons.

First, technical rugby vocabulary has a low presence in general discourse, with the results of the lexical analysis showing the technical rugby spoken word list accounts for only 2.81% of the British National Corpus (Aston and Burnard, 1998). For players and coaches yet to be in the foreign rugby community, acquiring L2 rugby language would be more difficult, with few opportunities to hear this type of vocabulary. Additionally, technical vocabulary used in Interactional situations, such as playing the game and during practice, would be especially difficult to acquire. For example, in New Zealand, the main language used in rugby is English. Therefore, an English-speaking player would have no opportunity to learn Japanese technical rugby vocabulary prior to playing in Japan. Thus, the technical rugby word lists created in this thesis will be a valuable tool for ESP teachers in the language classroom to systematically focus on the most frequent items used for players and coaches. An example course based on the technical word lists will be discussed in Section 7.4.

Second, L2 learners require receptive and productive knowledge of technical rugby items to successfully integrate into a specialised domain. However, the receptive vocabulary knowledge task in the online survey revealed L2 learners lack knowledge of both technical single-words and MWUs. Explicitly teaching technical vocabulary in the rugby language

classroom will allow the teacher to focus learners' attention on the vocabulary. Furthermore, productive learning of a word is more difficult than receptive, mainly due to the precision needed for communication (Nation, 2013). Therefore, time allocated in the language classroom to acquire technical rugby vocabulary's productive meaning, form, and use in context is valuable to L2 learners.

7.4 A pedagogical application to an ESP rugby course

Through this thesis, the results revealed that players and coaches need specific assistance with their language learning and that the creation of specialised ESP courses would be beneficial to meet their needs. This section will discuss a principle-based framework for creating ESP rugby courses. Furthermore, specific examples of activities that could be implemented into the course will be discussed. Aspects in this section include a narrow-angled course design (Section 7.4.1), syllabus design (Section 7.4.2), the Four Strands framework (Nation, 2007) (Section 7.4.3), vocabulary in the ESP rugby course (Section 7.4.4), and evaluating the curriculum (Section 7.4.5).

7.4.1. A wide- or narrow- angled course

A key issue when first determining the structure of the course is deciding how specific it should be for the target audience (Basturkmen, 2010). Basturkmen (2010) notes ESP courses can be 'wide angled' (designed for a more general group of learners) or 'narrow angled' (designed for a very specific group of learners) (p. 53). The thesis revealed four narrow-angled ESP rugby courses are necessary to meet the specific needs of the learners in this study. The four courses are: 1) Japanese players and 2) coaches intending to go to New Zealand and 3) English speaking players and 4) coaches intending to go to Japan (see Table 7.4). The results of the needs analysis revealed players and coaches require different skills for their role in rugby. For example, players need assistance to communicate precisely during the game, while coaches are required to attend coaching development courses and hold regular coaching meetings. Furthermore, players only need to learn spoken technical vocabulary, whereas coaches need to acquire both spoken and written technical vocabulary. Therefore, if the learning conditions are perfect, where learners can be grouped accordingly, it would be best to create four 'narrow angled' courses (see Table 7.4).

Table 7.4: Overview of learner needs for four narrow-angled ESP rugby courses

Learners	Situational needs	Language needs	Learning strategy needs	Vocabulary needs
Japanese players	At practice and during the game	Listening, speaking, and fluency	Fluency, accuracy, listening, speaking strategies	General high frequency, technical spoken single and MWU lists
English players				
English coaches	At practice, coaching development courses, coaching meetings	Listening, speaking, reading, fluency	Clarifying, circumlocution, speaking, reading	General high frequency, technical spoken and written single and MWU lists
Japanese coaches				

Although four separate ESP courses are needed, the same principles and framework can be followed throughout. The following section details the four-strand framework (Nation, 2007) that can be applied to each of the four ESP courses.

7.4.2 Syllabus design in rugby ESP courses: The Four Strands (Nation, 2007)

As Basturkmen (2010) notes, the findings of a needs analysis contribute to the planning of what content should be included into an ESP course (p. 59). Two main findings from the thesis which have been discussed in this chapter are the importance of spoken rugby discourse and the importance of technical rugby vocabulary. Nation's Four Strands approach (2007) is a principled framework that addresses many of the necessary elements of language learning L2 players and coaches need in a rugby ESP course. The Four Strands are: meaning-focused input, which focuses on meaning through listening and reading; meaning-focused output, which focuses on meaning through speaking and writing; language-focused learning, which focuses on language aspects such as vocabulary or strategies; and fluency development, which focuses on speed and accuracy in the four skills.

This organisational framework provides key conditions for learning, with a focus on communication skills. The Four Strands approach is also appropriate in this context as several studies note its usefulness in ESP courses (Anthony, 2018; Hirsh & Coxhead, 2009). Nation (2007) stresses the importance of balancing each of the Four Strands in a course so that learners focus primarily on meaning (meaning-focused input, meaning-focused output, fluency development), but also focus on form (language-focused learning) (Ellis, 2005). Anthony (2018) does however note that in practice, ESP courses may not equally balance meaning-focus input and meaning-focus output skills, depending on the needs of the learners (p. 88). This is the case for the four ESP rugby courses. For example, players require less emphasis on reading and writing skills, as it is not needed to play or practice rugby. However, coaches need a balanced course that focuses on the four skills in the two strands. The Four Strands framework was designed to work at two levels; the curriculum level and the classroom activity level (Coxhead, 2018). The following subsections will discuss materials that follow the Four Strands for use in an ESP rugby course.

7.4.3 Meaning-focused input/output strands in a rugby ESP course

Nation (2007) notes that for the meaning-focused input and output strands to be effective, the following conditions need to be met: there are large quantities of input/output, the learners are interested in the input/output and want to understand it, and the majority (95%-98%) of vocabulary in the activities are known. For rugby players, communicative competence, specifically, when playing the game and during practice is critical. Coaches also need communicative competence at practice and during coaching meetings. Therefore, as speaking activities include both meaning-focused input (listening) and meaning-focused output (Nation, 2007), an emphasis on speaking activities will be beneficial to both players and coaches language learning. Output (speaking activities) also allows learners to notice gaps in their knowledge which then they can focus on filling (Swain, 1995). Two example meaning-focused input and output tasks are role play and information transfer.

Research has shown role play provides authentic-like discourse, where learners produce language in a range of situations (Burns & Moore, 2008; Yin & Wong, 1990). Following the advice of a participant interviewed in the need analysis (See Chapter 5, Section 5.7), activities focusing on specific situations in the sport, such as line out or scrum can be the

topic, then the role play activity can be used to simulate that situation. Excerpts from the spoken corpus can be used as scripts for lower level learners or as guidance tools for more advanced learners. Role play will allow learners to actively use the language they know, as well as incorporate technical language they learn through the current course in controlled situations that mimic a game or practice.

An information transfer activity focuses on meaning through listening that uses the information in spoken text (Hirsh & Coxhead, 2009; Nation, 2013). It is a mixture of the meaning-focused input and output strands. This activity involves a learner either reading or listening to a text then explaining (speaking) that contents to another learner who completes (writes) a task using the information (Hirsh & Coxhead, 2009). In an ESP rugby course, an example information transfer activity could use excerpts of phases of play from the TV commentary corpus. A learner watches the excerpt and then describes the route of the ball to a learner who then marks it on a paper.

While the results of the thesis revealed input through reading is primarily used by coaches through development courses, research has shown extensive reading is an important source of learning a language (Nation, 2007; Waring & Takaki, 2003). Therefore, using reading materials would be beneficial for both players and coaches. To meet the condition that learners should be interested in the activity and want to understand it, rugby related materials are needed. One approach to incorporate extensive reading into the ESP course is by creating rugby graded readers (Bamford & Day, 1998). Rugby graded readers could consist of stories about rugby, such as a biography of a famous rugby player, and be tailored to the vocabulary level of the learners. For graded readers to be effective, learners must know at least 98% of the vocabulary (Hu & Nation, 2000a). How learners will be tested for their vocabulary level will be discussed in the Section 7.4.5.

In sum, an ESP rugby course should contain large amounts of the meaning-focused input and output, which is approximately 50 percent of in-class time. The activities discussed above can be adapted for all four ESP courses (Japanese players and coaches and English players and coaches) depending on the learners or their lexical needs. For example, the role play activity can be adapted for coaches by role playing interactions between coaches and

players or coaches and coaches in meetings. It is important to create rugby related materials that are not lexically demanding for the learners (98% comprehension), so that learners are motivated to learn. For more meaning-focused input and output tasks that can be adapted for use in a rugby ESP course, see Nation (2013), Coxhead (2014), Hirsh and Coxhead (Hirsh & Coxhead, 2009), and Nation and Yamamoto (2012).

7.4.3.1 Language-focused learning strand in an ESP rugby course

Approximately 25 percent of in-class time should be spent focusing on language features that learners need, according to Nation (2007). Language features identified in the thesis are vocabulary, both general and technical rugby vocabulary, and communication strategies. How vocabulary will be incorporated into an ESP rugby course will be discussed in Section 7.4.4. This section will focus on the deliberate learning of strategies for players, then coaches.

The needs analysis revealed that although numerous strategies are used by players, such as *repeating the sentence* and *speaking slowly*, they are not effective in the two situations where language difficulties occur the most (*during the game* and *at practice*). This is because these strategies cannot be used when there is time-pressure, such as during a game. As can be seen in Table 7.4, players require accuracy, listening, and speaking strategies. Two communication strategies that can assist L2 rugby learners are *prediction* and *inferencing* (Dadour & Robbins, 1996). *Prediction* entails learners guessing what will occur before an event, such as an excerpt from a movie or written text. *Inferencing* is guessing the meaning through understanding key words in the discourse.

An example activity to focus on *predicting* in the rugby language classroom is using a video excerpt from a rugby game on mute. In this case, learners watch the excerpt and predict what the commentators are saying. Then, learners watch again with the commentary and a written script to check their answers. *Prediction* will help learners grasp what is required of them in situations such as during the game and at practice. If they can *predict* what will occur next in these situations, less precise verbal comprehension is needed.

An example activity to focus on *inferencing* uses excerpts from the Interactional corpus. The teacher audio records an excerpt from *at practice* and plays it in class, then learners guess the meaning. Another activity which also focuses on *inferencing* is *running dictation* (Nation & Newton, 2008). This activity involves a teacher outside the classroom verbally giving instructions to a learner who then returns to their group in the classroom and retells it. In the rugby classroom, this activity could entail having the teacher say a phase of play or instructions on what to do in a set play to a learner. Then the learner returns to their group, retells what the teacher said and the group draw the play on a piece of paper. This activity can be repeated numerous times for each member of the group. *Inferencing* will help learners become accustomed to listening for key words in a sentence. While playing the game or at practice, this strategy will be most useful, as there is a limited amount of time to clarify with teammates.

For coaches, the strategy *running dictation* (Nation & Newton, 2008) can also be beneficial to their linguistic needs. Speaking during practice was revealed as the situation where language difficulties occur the most for coaches. Through adapting the activity, by having coaches be the role of both a teacher and learner, they can then have contextualised practice giving precise instructions to learners. The language-focused learning strand of an ESP course will focus on vocabulary (see Section 7.4.3) and communication strategies. It is important to note that learners need to have spaced, repeated opportunities to practice these strategies and vocabulary as well as encouraging learners to use them in the other three strands (Nation, 2007).

7.4.3.2 Fluency development in an ESP rugby course

The final strand in Nation's (2007) framework is fluency development. The needs analysis revealed fluency to be a main language difficulty in spoken rugby discourse. Although fluency development usually involves all four skills of listening, speaking, reading, and writing, for a rugby course focused on L2 players, fluency activities designed to focus on listening and speaking would be most useful. This is because players seldom need to read or write. For fluency development to be successful, it is necessary that there is pressure to perform faster than usual, as well as all the language and content in the activity be familiar to the learner (Nation, 2007).

An example activity for the rugby classroom that meets these conditions is *repeated retelling* (Nation, 2001). This fluency activity consists of learners watching excerpts of rugby games they are familiar with and retelling what happens. This activity can be adapted to focus on either general vocabulary or target vocabulary. By not allowing learners to watch the excerpts while retelling would encourage generative use and focus on meaning rather than target vocabulary (Joe, 1998). Nation (2007) proposes that for beginner learners, repetition of frequent sentences and phrases is initially beneficial. This method may assist beginner learners when initially joining a foreign rugby community. Useful phrases and sentences can be sought from the technical MWU lists. For example, two MWUs in the list are *kick it* and *short pass*, which can also be instructions that learners will need to understand *during a game*. Therefore, being fluent in these phrases will aid beginner L2 players.

For L2 coaches, a focus on reading fluency development is also needed, as they attend coaching development courses where reading is required. An example reading fluency activity is using a section from the written rugby corpus and have learners *skim* or *scan* (Nation, 2009a). For skimming, the learner reads and then answers comprehension questions, whereas for scanning, they search for specific information, such as a rule or a subsection. By being able to increase the speed of these skills, L2 coaches could develop their skills for understanding documents received in the development courses.

7.4.4 Teaching vocabulary in an ESP rugby course

Vocabulary is not a separate language feature, but instead should be threaded throughout an ESP course, in all Four Strands. The following section will discuss the ways vocabulary can be part of the Four Strands, and how the technical single and MWU lists could be implemented in the course. This section focuses on teaching general high frequency vocabulary, proper nouns, swear words, and technical vocabulary, and both single and MWUs. Table 7.5 provides an overview of the types of vocabulary needed in an ESP rugby course.

Table 7.5: Overview of the types of vocabulary in an ESP rugby course

Type of vocabulary	What do learners need?
General high frequency	First 3,000 words. Need large amounts of repeated exposure in all Four Strands. Central to the ESP rugby course.
Proper nouns	Explicitly teach lexical cues (e.g. MWUs) to understand where proper nouns frequently occur. First taught in Language-focused learning strand, then used in all Four Strands.
Marginal words	Use authentic visual and audio materials. Explicitly teach the sociological and psychological importance of swear words in Language-focused learning strand. Repeated throughout course in all Four Strands.
Technical rugby vocabulary	Taught in language-focused learning strand. Use word lists in order of semantic rating. MWU lists are used in conjunction with single word lists. Once learnt, repeated use in other three strands.

First, vocabulary knowledge is an integral aspect of language learning (Nation, 2013). To be able to become a member of a foreign rugby community, learners require both receptive and productive knowledge of the most frequent vocabulary in rugby. Furthermore, learners need to know the form, meaning, and use of these words to comprehend rugby discourse (Nation, 2013). For example, for the word *scrum*, learners will need knowledge of how the word sounds, its written form, its meaning, its meaning in different contexts, how to correctly pronounce it, how to write it, use it in a sentence, and produce MWUs that it commonly occurs in. Nation (2013) provides further information regarding what is involved in knowing a word. In a rugby ESP course, repeated exposure and practice through the Four Strands and the activities discussed above, are critical to the success of the course, and ultimately improving the learners' proficiency.

This thesis revealed that learners, both players and coaches, require knowledge of four types of vocabulary; general high frequency vocabulary, proper nouns, marginal words (swear words), and technical vocabulary. Schmitt and Schmitt's (2014) general high frequency vocabulary band (first 3,000 words) accounted for 89.43% coverage in spoken rugby discourse. Therefore, these words are the foundation of an ESP rugby course.

Activities throughout the Four Strands should contain large, repeated amounts of this vocabulary in order for learners to have substantial vocabulary growth. One method of ascertaining whether the materials are at an appropriate lexical level, is by running them through a vocabulary profiling software, such as the *Range* program (Heatley et al., 2002). Activities in the meaning-focused input and output strands should be 98% coverage in the first 3,000 vocabulary bands. Activities in the fluency development strands should be 99%-100% coverage in the first 3,000 vocabulary bands. If high frequency vocabulary is unknown (see Section 7.4.8. for evaluating vocabulary knowledge), explicit teaching is a priority and would be included in the language-focused learning strand.

Proper nouns are important in spoken rugby discourse that need to be addressed in an ESP rugby course. In the spoken rugby corpus, proper nouns accounted for 6.39% of the total tokens. Proper nouns are especially important when listening to TV commentary, as they accounted for 9.71% of the total tokens. While they are crucial to comprehension (Kobeleva, 2012), as noted in Section 7.2.2, it is impossible to teach proper nouns, due to the sheer number that occurs in spoken rugby discourse. Therefore, it is more useful to explicitly teach lexical cues in the language-focused strand that will help identify when an unfamiliar noun is present. Such lexical cues include MWUs from the technical MWUS spoken word list. An example MWU that can aid in identifying proper nouns, as shown in Section 7.2.2, is *fielded by* (proper noun). In the spoken rugby corpus, this MWU is exclusively followed by a proper noun. Once taught in the language-focused learning strand, it is important to provide opportunities for learners to use these cues within the other three strands.

Marginal words are also crucial in spoken rugby discourse, especially in interactional rugby speech, such as during the game and at practice (Wilson, 2009c). Therefore, integration of

such words within the Four Strands will aid learners in understanding how swear words are used in the context of rugby. One method is through using authentic visual and audio material (Weyers, 1999), such as excerpts from the Interactional corpus. Another method would be to highlight the words in texts to increase their chances of being noticed (Nation, 2013). In addition to their meaning, the sociological and psychological importance of swear words in rugby needs to be explicitly taught and therefore, it is worthwhile spending some time in the language-focused learning strand, explaining these aspects.

Technical vocabulary, both single and MWUs, occur throughout spoken and written rugby discourse. There are two types of technical vocabulary that need to be addressed in an ESP rugby course. The two types are private team-based vocabulary and technical single and MWUs. First, as noted in Section 7.3.2.2, although private team-based speech was not identified in the rugby corpora, it is critical in spoken rugby discourse when communicating within a team so the opposition cannot understand. In an ESP course, this type of vocabulary should be treated as technical vocabulary in the language-focused learning strand by explicitly teaching or developing codes as examples. Using strategies, such as word cards (as noted below), players and coaches can learn the words and their meaning to what set play will occur. If the ESP course is for one team, then it also may be possible to create the private team-based vocabulary in the classroom through negotiation between players and coaches.

Second, research had shown that deliberate learning helps in retaining vocabulary knowledge (Nation, 2013). Therefore, both the technical single and MWU lists should first be introduced in the language-focused learning strand, then these items can be integrated into the three other strands. The first decision an ESP teacher needs to make when integrating the technical rugby word lists into the course is which order the words should be taught. Nation (2016) advocates that word lists are used to “fit the knowledge and needs of the learners” (p. 172). The lexical analysis revealed technical words identified in the semantic rating 2 scale primarily occur in the high frequency vocabulary band, compared to items identified in rating scales 3 and 4, which occur in medium and low frequency bands. Therefore, when deciding what words to teach first, two tests should be administered. First, the updated Vocabulary Levels Test (Webb, Sasao, & Ballance, 2017) is the most appropriate

test to measure the learners' receptive knowledge of general vocabulary. Second, a specially designed test created to measure the learners' technical vocabulary knowledge is necessary. By comparing the results of both tests, teachers can understand the learners' general and technical vocabulary knowledge and, in turn, create materials that are at the appropriate level. It is also important to note however, that steps need to be taken to analyse the learners' productive knowledge of technical vocabulary. As this thesis showed, creating such a test is difficult. Analysing the productive vocabulary knowledge of L2 rugby learners is further discussed in directions for future research in Section 8.7.

Another way to decide what words to teach would be a simple yes/no test, where learners tick which items they know (Coxhead, 2018). As both the spoken and written technical single words lists are relatively small, this method has some merit. The thesis also revealed players and coaches have different lexical needs, with players only requiring technical spoken vocabulary, whereas coaches require both technical spoken and written vocabulary. Therefore, in players' ESP courses, the technical spoken single and MWU lists will be needed and coaches' ESP courses will need both the technical spoken and written single and MWU lists. An important note on the use of the created technical word lists in ESP rugby course is, as they are currently only in English, specifically New Zealand rugby English, they are useful for Japanese players and coaches. The creation of bilingual technical word lists is an avenue for further research and is discussed in Section 8.6.

In the language-focused learning strand, word cards or electronic flash cards are one way in which the technical rugby vocabulary can be deliberately learned (Nation, 2008, 2013). To use this method, learners write the English technical word on one side of the card and on the other, information such as the translation, an example sentence, the pronunciation of the word, or an example MWU can be included (Nation, 2001). In addition, it is important to introduce spacing between encounters so learners improve their long-term retention of the word (Nakata, 2013). This method allows learners to build their overall knowledge of both technical single-word and MWUs, as it focuses on the items form, meaning, and use (Nation, 2013). For L2 rugby players and coaches, word cards will allow technical words to be learned outside the classroom, for example at the rugby facilities.

7.4.5 Evaluating an ESP rugby course

As with any ESP curriculum, a rugby course needs to be constantly evaluated and revised in order to make the course meet the need of the learners (Basturkmen, 2010). As the course is new, the focus of the evaluation should look at two aspects: the amount of learning and the quality of the curriculum design (Nation & Macalister, 2010). A mixed-method approach (Atherton, 2006) to evaluating the course in which multiple tools are used to gather information can be applied to a rugby course. Three such methods are pre- and post-test scores, teacher and learner questionnaires, and evaluation of the course materials.

Pre- and post-test scores can be gathered using two vocabulary tests. To measure the learner's knowledge of general vocabulary, the *Vocabulary Levels Test* (Nation, 1983; Schmitt, Schmitt, & Clapham, 2001; Webb et al., 2017) can be used. To measure learners' technical vocabulary knowledge, two specially created tests will be needed: One for technical spoken vocabulary (both single and MWUs) and one for technical written vocabulary. Learners could be given the test at the start of the course and at the end of the course. The scores can be analysed to indicate if learners have improved in their knowledge of the vocabulary.

Questionnaires can be used at the end of the course to ascertain a range of aspects that need improving. Teacher and learner reflection questionnaires can be used to focus on various aspects of the course, such as their perception on the effectiveness of course materials and the effectiveness of the course for meeting their linguistic needs.

Questionnaires pertaining to the material used in the course will provide such information as their effectiveness in teaching the necessary components of the course, how can the materials be further adapted for the classroom, or what other materials or activities would be applicable for the learners. By evaluating these materials, course designers will understand if the materials are effective for meeting the goals of the course. The results of these questionnaires will assist in creating a more focused course for the learners. In addition to giving questionnaires to teacher and learners, if possible, creating and administering a questionnaire to the learners' team members, such as their teammates or coach, will help understand if the course is affecting the L2 players' or coaches' ability to communicate in the rugby context. Although creating and analysing such questionnaires are time consuming, the results will assist in revising the course and created materials.

7.5 Chapter summary

This chapter has discussed three main topics that arose from the results of the thesis. The first area of interest examined the value of spoken discourse in rugby, focusing on who and where it is critical. As discussed, both players and coaches require proficiency in spoken rugby discourse to perform at their highest level. Then, the language aspects affecting spoken discourse were discussed, focusing on the importance of vocabulary, both general and technical vocabulary in spoken rugby discourse. The second area of interest then examined the value of technical vocabulary in rugby. It was found that technical vocabulary high frequency bands, fully technical words, and MWUs are critical in the rugby context. How the implementation of the technical rugby word lists in an ESP course could meet L2 players' and coaches' needs was also discussed. The final area of interest presented in this chapter discussed an example ESP rugby course created from the findings of this thesis. Considerations of the curriculum development, an organisational framework, and examples activities were discussed. Furthermore, the importance of using the findings of this thesis to guide the initial creation of the course, as well as continuously revising the materials to meet the needs of the learners, was emphasised. The next chapter concludes the thesis by looking at pedagogical implications, limitations of the study, and future research.

Chapter 8: Conclusion

8.1 Introduction

The purpose of this chapter is to provide an overview of this thesis and its contribution to methodology (Section 8.3), theory (Section 8.4) and pedagogy (Section 8.5). Limitations (Section 8.6) of the thesis are also discussed before considering directions for future research (Section 8.7).

8.2 Overview of the thesis

This thesis sought to examine the lexical and communicative needs of rugby players and coaches in New Zealand and Japan. Sports, and rugby specifically, was an area in ESP that to date, has had no little or no empirical research in the specialised field. The thesis consisted of two phases to investigate these areas.

The first part of phase one examined the lexicon of TV commentary and team based speech through a corpus-based analysis. Three corpora, two spoken (TV commentary and team-based speech) and one written, containing the Laws of Rugby, were used in the analysis. The research questions mainly addressed the lexical profile and vocabulary load of rugby. The findings revealed both spoken and written rugby discourse is primarily made up of high frequency vocabulary. One interesting result of the study was that TV commentary contains a high amount of proper nouns, such as players' names, whereas team-based speech contains a high amount of marginal words, such as swearing.

Based on the lexical analysis, the second part of phase one investigated the technical vocabulary in rugby discourse using the spoken and written corpora. This study aimed to answer the question of what technical vocabulary rugby learners need to know to successfully communicate. Through following frequency and semantic meaning principles, two technical rugby word lists were created; a 252 spoken and 226 written rugby technical single word list. These were supplemented by two technical MWU lists; a 267 spoken and 847 written technical MWU list. These pedagogically-orientated lists were created for teachers and learners, with the purpose of acquiring the items in an ESP classroom.

Phase two of the study was a linguistic needs analysis conducted in New Zealand and Japan, with the goal of answering the main question of what are the needs of rugby players and coaches. A total of 86 online surveys were completed and 12 semi-structured interviews were conducted. Within the needs analysis, data from the word lists was used to examine what L1 and L2 rugby players and coaches understand to be technical rugby vocabulary, which in turn helped provide a broader view of what their needs are. The results revealed language difficulties occur throughout the rugby domain. Furthermore, general and technical vocabulary was a major barrier for both players and coaches, especially L2 speakers. The results of this study in the area of ESP provide theoretical and methodological contributions, as well as teaching and learning implications.

8.3 Methodological contributions

The main methodological contribution this thesis has made is using both a needs analysis and corpus-based analysis to fully understand the communicative and lexical demands of rugby players and coaches in New Zealand and Japan. Basturkmen (2010) advocates for using both the results of a needs analysis and an investigation into the discourse within a domain to understand the use of language so that teachers or course developers can create a suitable ESP curriculum. This thesis shows how simultaneously conducting both analyses complement each other to gather richer data than conducting them separately, despite this process being somewhat time consuming and complex. Creating the spoken and written rugby corpora first and then identifying technical rugby vocabulary meant that the needs analysis was informed by this earlier research. The findings of this thesis illustrate the benefit of conducting a corpus-based analysis first then a needs analysis to gain a broader, richer insight into the communicative and lexical demands of ESP learners.

The second methodological contribution is the way in which the two spoken corpora were gathered to represent spoken rugby discourse. Previous ESP corpus-based studies have primarily used the classroom as the setting to gather spoken discourse (Coxhead & Demecheleer, 2018; Coxhead et al., 2016; Coxhead et al., 2018). However, this was not possible, as to the best of my knowledge, no such classroom exists for rugby. Instead, using the researchers' previous knowledge and experience of rugby, authentic spoken discourse was gathered from two sub-domains (TV commentary and team-based speech) outside of

the classroom to create the corpus. With the ever-growing number of ESP corpus-based studies in non-university domains, the approach of gathering spoken discourse in this current thesis has methodological value.

8.4 Theoretical contributions

The present thesis has made three main theoretical contributions. First, this thesis sheds light on the nature of technical vocabulary in non-university spoken disciplines in several ways. The research emphasises that technical vocabulary occurs in all frequency levels of high, medium, and low frequency words (Nation, 2016), with the findings showing that an overwhelming 223 (88.5%) of the technical spoken word list are high frequency items, but semantically technical in rugby and that between 10% to 15% of ESP spoken discourse consists of technical vocabulary. This finding is consistent with previous research on other spoken discourses such as trades education (Coxhead & Demecheleer, 2018; Coxhead et al., 2016; Coxhead et al., 2018). In addition, the findings shed light on technical multiword units, in particular, the identification of root structures and reducing overlapping between items to produce more usable lists for classroom and independent learning (Byrd & Coxhead, 2010; Wood & Appel, 2014). The results of this study showed that from a provisional list of 414 spoken (*over the ball, swings it away, a good tackle*) and 2,791 written MWUs (e.g. *taking part in the lineout, a player carrying the ball, retire behind the offside line*), once the root structure was identified and sorting of overlapping was complete, the lists reduced to 267 spoken MWUS, with 239 root structures and 847 written MWUs, with 417 root structures, respectively.

Second, it adds support for conducting joint lexical analyses and needs analysis in previously unexplored areas, such as sports. While there are an ever-growing number of investigations in ESP, very few have focused on non-university contexts and none in sport. The findings of this thesis revealed that language, specifically vocabulary, is a main issue for rugby players and coaches that impedes them from fluently and accurately communicating, which in turn, affects their ability to play rugby or coach effectively in multilingual teams, and these findings relate to similar studies in sports, such as football (Giera et al., 2008; Ringbom, 2012).

Lastly, this thesis shed light on learners' knowledge of technical vocabulary in their discipline. The results of the study revealed there was a clear disparity, with non-native speakers lacking receptive knowledge of technical rugby vocabulary, both single-word and MWUs. Given that only one study to date has investigated possible problems with technical vocabulary for learners in Traditional Chinese Medicine (Lu & Coxhead, 2019), this research provides crucial information on rugby as a previously unexplored area. From a pedagogical stance, these findings add support to studies noting the importance of prioritising technical vocabulary when taught in the ESP classroom for language learners.

8.5 Pedagogical implications

The findings of this thesis lend directly to the creation of two ESP rugby courses; a course for players and a course for coaches. Examples of the principles and activities for developing such a course were discussed in detail in Section 7.4. The following section summarises the main pedagogical principles of a rugby ESP course, as they are a major contribution of this thesis. These principles are: a narrow-angled course (Basturkmen, 2010), Nation's (Nation, 2013) four-strand framework, and the integration of general and technical vocabulary.

Firstly, two narrow-angled (Basturkmen, 2010) specialised courses are required; one for rugby players and one for coaches. Findings from the needs analysis revealed that players and coaches' linguistic needs are different. For foreign speaking players, communication while playing the game and at practice is the main linguistic requirement. Therefore, an ESP course that focuses on fluency and accuracy in listening and speaking is needed.

On the other hand, foreign speaking coaches are required to be proficient in all four skills (reading, listening, speaking, and writing). Not only do coaches need to be able to communicate accurately during practice, they also attend coaching development courses where reading and writing are necessary. Therefore, two separate narrow-angled courses will assist teachers and learners to meet these needs.

Secondly, Nation's (2007) Four Strands framework is one approach that will meet the needs of the learners. This framework involves balancing a course that focuses on meaning-focused input, meaning-focused output, language-focused learning, and fluency development. Meaning-focused input activities, such as extensive reading with rugby-

related graded readers, provide learners with opportunities to improve their listening and reading skills through contextualised materials. Meaning-focused output activities, such as role playing specific situations in rugby, develop learners speaking and writing skills. Fluency development activities, such as repeated retelling a segment of a rugby game, develops all four skills, listening, speaking, reading and writing. Finally, the language-focused learning thread of the course focuses on the explicit instruction of items from the technical rugby single and MWUs lists and vocabulary learning strategies, such as word cards, to help learners deal with autonomously acquiring these items. Section 7.4 further presented these the Four Strands framework, detailing example activities that make a balanced ESP rugby course. It should be noted however, that although the principles of the course for players and coaches would be the same, as their needs are different, variations in the activities would be required.

Finally, the created technical single-word and MWU lists can be used in an ESP rugby course. The players' course will require the integration of the technical spoken single-word and MWUs list at the start of the course. As the lists are frequency and semantic-based, meaning the technical items are listed by their frequency as well as their degree of technicality, teachers and learners can either systematically work through the lists or choose a semantic scale, according to the learners' lexical proficiency. The technical MWU lists were designed to be used in conjunction with the single word lists and therefore, should be used as such.

The coaches' course will require both the technical spoken and written single-word and MWU list from the start of the course. Both courses should focus on developing the learners' receptive and productive knowledge of the technical single-word and MWUs. This can be done firstly through the initial language focused learning strand to introduce the items, then through extensive meaning-focused input and output activities, and finally in fluency development activities.

In brief, the present thesis highlights the need to develop specialised rugby courses for players and coaches, using the principles noted above. Creating such a course will meet the

communicative and lexical needs of these learners and in turn, allow them to perform in rugby at their highest ability.

8.6 Limitations

There are eight main limitations in this thesis: the corpora, participant selection and number, raters, productive narration task, and receptive vocabulary knowledge task. They are listed in order of their impact on the study. The first main limitation of the current thesis is the size of the corpora to conduct the lexical profile analysis and create the technical word lists. The three corpora for the corpus-based analysis consisted of, at most 37,314 tokens. For a spoken or written corpus, this is small in comparison to other discipline specific corpora (Koester, 2010). The small corpora size resulted from the lack of written texts available in rugby and the spoken data from Wilson (2011). One way to increase the corpora would have been to transcribe more TV commentary of games. However, this would have taken a considerable amount of time, as manually transcribing one 80-minute game took over 25 hours. Furthermore, as noted in Section 3.2.1.4, automatic transcription was trailed as a possible solution to increase the size of the TV commentary, but was only able to successfully transcribe 25% of the commentary. That said, the lexical profile of the three transcribed games revealed they contain almost identical vocabulary, except for proper nouns. Therefore, although the TV commentary corpora was small, the language gathered was a fair representation of the sub-domain.

The second limitation, also related to the corpora, is the selection of spoken and written texts gathered for the corpora. Due to time constraints, this thesis focused on two spoken genres, TV commentary and interactional communication, and one written, the official law book for rugby, all of which were obtainable within the time of the thesis. However, through conducting the needs analysis, it was revealed additional types of spoken discourse would have been beneficial when creating a more pedagogically-orientated word list, such as authentic team-based speech from players playing in a game. Therefore, I am aware this research may not truly represent all sub-domains within spoken and written rugby discourse. This thesis does however provide a clear direction for future research, which is discussed in Section 8.6.

The third limitation in the thesis relates to the number of participants from which the data was gathered in the needs analysis. By using the snowball technique (Browne, 2005) as a data gathering method, there was no guarantee on how many participants would complete the online survey or be willing to be interviewed. In total, 86 participants (30 English speakers and 56 Japanese speakers) completed the survey and 12 were interviewed. This could be considered a low number of participants to conduct a linguistic needs analysis. Therefore, the results may be more statistically significant if a different data gathering method was used.

The fourth limitation is the number of sub-groups in the online survey. Due to the exploratory nature of the study, 10 sub-groups were sought for the survey (English speaking player in Japan, English speaking coach in Japan, English speaking player in New Zealand, English speaking coach in New Zealand, English speaking player other, English speaking coach other, Japanese speaking player in Japan, Japanese speaking coach in Japan, Japanese speaking player in New Zealand, Japanese speaking coach in New Zealand). This made the pool of participants diverse with varying numbers for each group, which in turn, limited the data gathered. By focusing on one group, such as foreign players in Japan, richer data could have been gathered to see clearer results of their linguistic needs. Directions in which this could be undertaken will be discussed in Section 8.6.

The fifth limitation concerns the raters used during the semantic rating analysis. As discussed in Section 3.6.1, two raters and the researcher conducted the analysis to classify technical rugby vocabulary. Although three raters allowed for a decision to be made if there were conflicting results, more raters would have been beneficial to provide concrete results on the rating of technical items and allow statistical analysis of the data.

The sixth limitation of the thesis relates to the productive narration task. As discussed in Section 3.9.4, all four non-native speaking participants withdrew from the task, leaving four native speakers in the data set. This reduction in numbers severely limited the data. There are two possible reasons why a small number of participants agreed to complete the task and then withdrew. First, the task was completed directly after the interview, which made the whole process at least 40 minutes long. As most participants were working full-time, this

was too long. Second, the task itself may have been too difficult for non-native speakers. Literature has noted the fast-paced speech of commentary (Kuiper, 1996; Kuiper & Lewis, 2013). For non-native speakers, being able to fluently produce language at the speed of commentary may have been too difficult and, in turn, lost confidence. A different method of gathering the productive use of technical rugby vocabulary is needed, which is further discussed in Section 8.7 below.

The two remaining limitations relate to the receptive vocabulary knowledge tasks. First, the way Qualtrics presented the receptive knowledge task allowed participants to skip items, which made it impossible to ensure all participants had completed the task. Second, the receptive knowledge task consisted of only 30 technical items, 15 single-word and 15 MWUs. This is a small number of items. It would have been more ideal to use more items or have more than one receptive knowledge task to gather richer data. However, the survey was only 20 minutes, it was decided to have one 30-item task, which limits the generalisability of the results.

8.7 Directions for future research

The findings and limitations of this thesis provide six possible future investigations into the communicative and lexical demands of rugby. The first investigation relates to examining other types of discourse in rugby. The present thesis focused on TV commentary and interactions within a team setting, which Wilson (2011) gathered as part of his thesis. As noted above, this was a limitation of the study. Therefore, other types of discourse within the domain deserve more attention. The first approach could be to increase the interactional corpus by gathering more authentic communication in areas such as during a game. Due to confidentiality and safety issues, Wilson (2011) was unable to gather this type of data. If these matters could be resolved, the data would be beneficial for players who noted in the needs analysis that language difficulties were prominent during the game. The second approach could involve varying the commentaries to include TV and radio commentary. Kuiper and Lewis' (2013) study investigated speech between radio and TV rugby commentary, with their results showing radio provides more detailed commentary than TV. Therefore, conducting a lexical profile analysis on this type of discourse may

provide more occurrences of technical rugby vocabulary, which can then be used within the ESP classroom.

The second possible investigation is validating the rugby technical word list and MWU list. Due to the difficulties which arose while creating the spoken corpus, it was not possible to create a validation corpus of similar structure. Instead, raters were used. It would be beneficial for future research to develop a validation corpus when creating a specialised corpus. Once compared with a validation corpus, raters can then be used to provide their perception on the usefulness of items in word lists (Dang, 2017).

The third possible investigation is to further explore the linguistic needs of players and coaches through conducting a more in-depth needs analysis. As mentioned above, 10 sub-groups completed the needs analysis, which diluted the pool of participants. By focusing on only one particular group of participants at a time, such as foreign players in Japan, a refined needs analysis using more data collection methods could be developed. For example, focus group interviews or using ethnographic methods such as observing trainings, huddles, and other settings where communication occurs, could be used. By focusing on one particular group using a mixed-method approach, a more specific ESP course for particular learners could be designed, such as a beginner-level course for foreign players in Japan.

The fourth possible investigation is examining foreign speaking players' and coaches' productive knowledge of technical rugby vocabulary. Part of this thesis journey involved the development of an elicitation task, consisting of story generation and video narration, to obtain samples of productive vocabulary. However, as noted above, a main limitation was not collecting sufficient data to conduct a lexical analysis of the produced language that could be compared with the expert commentary. The findings from this thesis revealed it is crucial for players and coaches to have a command of technical vocabulary in the rugby domain. Therefore, further research is needed to examine not only the receptive, but productive knowledge of technical vocabulary.

The fifth possible investigation is exploring technical rugby vocabulary that is used in different countries. In this thesis, a spoken corpus was created with audio recordings in the New Zealand context, meaning that an unknown proportion of the identified technical rugby vocabulary may be exclusive to the New Zealand rugby domain. Kuiper and Lewis (2013) note how rugby language is manifested locally and can affect comprehension in differing contexts. For example, in New Zealand, the number 10 position is referred to as 'first-five eighth', but in England, it is referred to as 'fly-half'. Therefore, it would be beneficial to investigate technical rugby vocabulary in other rugby countries, such as Japan or England.

Lastly, a possible follow-up study could investigate the implementation of the ESP rugby course discussed in Section 7.4. Such an investigation would be beneficial for researchers and teachers to ascertain how the results of such a study can be successfully brought into the ESP classroom. One way to examine this would be through another detailed ethnographic needs analysis, possibly involving interviewing teachers and learners before, during, and after the course to collect qualitative data on their view of the course. Furthermore, to ascertain if the course is aiding in the acquisition of necessary vocabulary, pre-testing and post-testing of the learners' general and technical vocabulary knowledge, both receptive and productive, could be carried out.

8.8 Conclusion

The present thesis has shed light on a previously unexplored area of ESP through an investigation on the communicative and lexical demands of spoken rugby discourse. The development of rugby single-word and multiword technical word lists not only provides insights into the nature of technical vocabulary in non-university ESP domains, but are valuable resources in the design of a specialised curriculum to meet the learners' lexical needs. In addition, it provides valuable contributions to the creation of specialised spoken corpus outside of traditional settings. Furthermore, this thesis discusses pedagogical implications into teaching spoken technical vocabulary. Overall, this study lays the foundation for future research into rugby language, in addition to other non-university ESP domains.

On a personal note, through completing this PhD, combining my area of expertise with a sport I hold dear to my heart has been an absolute pleasure. This thesis was able to shed light on how, not only vocabulary, but language, plays a huge role in rugby. I hope to use the knowledge I have gained from this study as a stepping stone into creating specific ESP courses for foreign players and coaches in Japan and New Zealand. I also hope this thesis will encourage others to explore language in sports, specifically the needs of athletes, as the findings show there is a lot of work to be done in this unexplored area of ESP.

The experience I have gained through completing this thesis will continue into my career as a teacher and researcher. I am looking forward to conducting more research in this field and get a broader view of how language and rugby is intertwined.

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Appendices

Appendix 1. Needs analysis online survey for foreign players in Japan

	Language Can choose more than one	Proficiency level
English	<input type="checkbox"/>	<input type="text"/>
Japanese	<input type="checkbox"/>	<input type="text"/>
Tongan	<input type="checkbox"/>	<input type="text"/>
Samoan	<input type="checkbox"/>	<input type="text"/>
Fijian	<input type="checkbox"/>	<input type="text"/>
French	<input type="checkbox"/>	<input type="text"/>
Afrikaans	<input type="checkbox"/>	<input type="text"/>
German	<input type="checkbox"/>	<input type="text"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="text"/>

I am currently studying Japanese:

☐ Daily
 ☐ 4-6 times a week
 ☐ 2-3 times a week
 ☐ Once a week
 ☐ I am currently not studying.

I am in Japan:

- ☐ To play rugby full-time
☐ For work (other than rugby)
☐ For study (other than rugby)
☐ Other

In which of the following countries, if any, have you played rugby and for how many seasons have you played?

	~1 season	1-2 seasons	2~ seasons
Japan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New Zealand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	~1 season	1-2 seasons	2~ seasons
Australia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
South Africa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
England	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ireland	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Samoa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tonga	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fiji	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

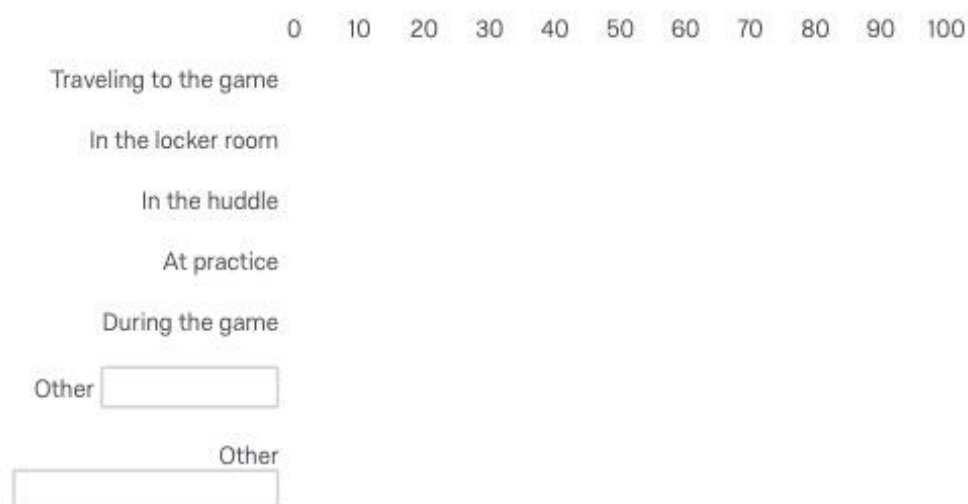
I have played / am playing the position of: (You may choose multiple options)

- ☐ 1/3
- ☐ 2
- ☐ 4/5
- ☐ 6/7
- ☐ 8
- ☐ 9
- ☐ 10
- ☐ 11/14
- ☐ 12/13
- ☐ 15

The following section contains questions about your communication in rugby and your experience communicating with non-English rugby players/coaches.

When you are listening to people in the following situations, what percentage is in English?

0 10 20 30 40 50 60 70 80 90 100



When you are speaking to people in the following situations, what percentage is in English?



Which of the following language difficulties, if any, have you experienced/witnessed with non-English speakers? (You may choose multiple options)

- | | |
|---|--|
| <input type="checkbox"/> Speaking to teammates about the next play in a game. | <input type="checkbox"/> Speaking to the coach at practice (E.g. discussing what to do in a set-play). |
| <input type="checkbox"/> Listening to the coach at practice (E.g. explaining what to do in a set-play). | <input type="checkbox"/> Listening to the referee in a game. |

<input type="checkbox"/> Speaking to teammates in the locker room about rugby (E.g. discussing the game).	<input type="checkbox"/> Speaking to players at practice (E.g. discussing what to do in a set-play).
<input type="checkbox"/> Listening to teammates about the next play in a game.	<input type="checkbox"/> Listening to managers about rugby (E.g. discussing the procedure for practice).
<input type="checkbox"/> Speaking with managers about rugby (E.g. discussing the procedure for practice).	Other
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Listening to players at practice (E.g. explaining what to do in a set-play).	Other
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Speaking to the referee in a game.	Other
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Listening teammates in the locker room talk about rugby (E.g. discussing the game).	<input type="checkbox"/> I have not witnessed/experienced any language difficulties.

Rank the following situations where language difficulties with non-English speakers occur the most: (With 1 being the most)

Traveling to the game

In the locker room

In the huddle

At practice

During the game

Other

The following language aspects might cause language difficulties when communicating (listening and speaking) about rugby with non-English speakers. Please rank them in order of their effect on communication: (With 1 being the most)

Everyday vocabulary

Specific vocabulary (slang / rugby terms)

Pronunciation

Grammar

Pragmatics (gestures / turn taking / cultural aspects)

Fluency (speaking speed)

Other

Here are some strategies you might use when language difficulties occur between you and a non-English speaking player/coach. Please tick which strategies you have used: (You may choose multiple options)

	Please tick I get them to:	Please tick I usually:	Please tick Both:
Repeat the sentence	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Speak more slowly	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Speak in simple English	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Perform the action (E.g. perform the set-play)	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Ask another player/coach to assist in the conversation	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Say 'I do not understand'	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Indicate (using gestures/body language) I do not understand	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Speak in their language	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Use more gestures / body language	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>

	Please tick I get them to:	Please tick I usually:	Please tick Both:
Ask an interpreter for assistance	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>

A player's ability to play rugby at their highest level is affected by language difficulties:

Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you could give advice on communicating and language to future English-speaking rugby players coming to Japan, what would it be?

The following section is a short knowledge task on rugby language.

Please drag into the box any words closely related to rugby that you recognize:

Items

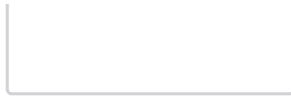
1: Back

2: Teach

3: Defense

Rugby words

- 4: Penalty
- 5: Concentrate
- 6: Fashion
- 7: Journal
- 8: Momentum
- 9: Border
- 10: Intercept
- 11: Sister
- 12: Tent
- 13: Jersey
- 14: Winger
- 15: Scrum
- 16: Agriculture
- 17: Offload
- 18: Ruck
- 19: Sick
- 20: Halfback
- 21: Sew
- 22: Negotiate
- 23: Lineout
- 24: Neighbor
- 25: Tighties
- 26: Garage
- 27: Breakdown
- 28: Virus
- 29: Letter
- 30: Loosies



Please drag into the box any phrases closely related to rugby that you recognize:

Items

- 1: On the outside
- 2: What does that mean
- 3: You know what I mean
- 4: Bit of space
- 5: Works it away to
- 6: You can see
- 7: Trying to figure out
- 8: Inside the twenty two
- 9: First half
- 10: Does not make sense
- 11: Knock on
- 12: Taken down
- 13: For those of you who
- 14: Thank you very much
- 15: Second half
- 16: It doesn't matter
- 17: Let's go boys
- 18: On the inside
- 19: If you look at
- 20: On the ground
- 21: Over the ball
- 21: It turns out that
- 22: See what I am saying
- 23: Advantage line
- 24: Take a look at
- 25: Ball in hand
- 26: Nothing to do with

Rugby phrases

27: Know what I mean

28: Snapped up

29: What I am talking
about

30: It turns out that

What rugby words should every rugby player/coach know? (You may choose multiple options)

☐ Back

☐ Defense

☐ Penalty

☐ Momentum

☐ Intercept

☐ Jersey

☐ Winger

Scrum

☐

☐ Offload

☐ Ruck

☐ Halfback

☐ Lineout

☐ Tighties

☐ Breakdown

☐ Loosies

Others

☐

What rugby phrases should every rugby player/coach know? (You may choose multiple options)

☐ On the outside

☐ Bit of space

☐ Works it away to

☐ Inside the twenty two

☐ First half

☐ Second half

☐ Let's go boys

☐ On the inside

☐ On the ground

☐ Over the ball

☐ Advantage line

☐ Ball in hand

☐ Snapped up

☐ Taken down

☐ Knock on

☐ Others

The following section contains questions on your experience learning rugby language.

How did you learn the language you use for playing/talking about rugby? (You may choose multiple options)

- ☐ Played the game
- ☐ Watched rugby games on TV
- ☐ Talked with people about rugby
- ☐ Read rugby articles in newspapers/online
- ☐ Read rugby magazines
- ☐ Studied in a language classroom
- ☐ Other
- ☐ Other

How did you prepare for playing in Japan? (You may choose multiple options)

- ☐ Watched rugby games on TV (With Japanese commentary)
- ☐ Talked to people about playing / coaching abroad
- ☐ Read Japanese rugby articles in newspapers / online
- ☐ Read Japanese rugby magazines
- ☐ Took Japanese language lessons
- ☐ Other
- ☐ I did not prepare

I am currently studying Japanese rugby language:

- | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|
| Daily | 4-6 times a week | 2-3 times a week | Once a week | I am currently not studying. |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |



I am currently studying Japanese rugby language by: (You may choose multiple options)

- ☐ Listening to Japanese TV rugby commentary
- ☐ Talking to people about rugby
- ☐ Reading Japanese rugby articles in newspapers/online
- ☐ Reading Japanese rugby magazines
- ☐ In a language classroom
- ☐ Other

Thinking about language difficulties, which of the following situations, if any, have been affected by a lack of rugby language? (You may choose multiple options)

- | | |
|--|---|
| <input type="checkbox"/> Speaking to teammates about the next play in a game | <input type="checkbox"/> Speaking to a coach at practice (E.g. discussing what to do in a set-play) |
| <input type="checkbox"/> Listening to a coach at practice (E.g. explaining what to do in a set-play) | <input type="checkbox"/> Listening to the referee in a game |
| <input type="checkbox"/> Speaking to teammates in the locker room about rugby (E.g. discussing the game) | <input type="checkbox"/> Speaking to players at practice (E.g. discussing what to do in a set-play) |
| <input type="checkbox"/> Listening to teammates about the next play in a game | <input type="checkbox"/> Listening to managers about rugby (E.g. discussing the procedure for practice) |
| <input type="checkbox"/> Speaking with managers about rugby (E.g. discussing the procedure for practice) | <input type="checkbox"/> Other
<input type="text"/> |
| <input type="checkbox"/> Listening to players at practice (E.g. explaining what to do in a set-play) | <input type="checkbox"/> Other
<input type="text"/> |
| <input type="checkbox"/> Speaking to the referee in a game | <input type="checkbox"/> Other
<input type="text"/> |
| <input type="checkbox"/> Listening to teammates in the locker room talk about rugby (E.g. discussing the game) | <input type="checkbox"/> None were affected |

The following section contains questions on the topic of rugby language

How important is a knowledge of rugby language when communicating with the following people?

	Extremely important	Very important	Moderately important	Slightly important	Not at all important
Teammates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Captain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Referee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Rank the following situations where rugby language occurs the most: (With 1 being the most often)

- During the game
- In the locker room
- In the huddle
- In practice
- When talking to with people about rugby
- Listening to TV rugby commentary
- Rugby articles in newspapers/online
- Rugby magazines
- Other

Which of the following study methods do you think are effective for learning rugby language? (You may choose multiple options)

- | | |
|---|--|
| <input type="checkbox"/> Playing the game | <input type="checkbox"/> Reading rugby magazines |
| <input type="checkbox"/> Listening to TV rugby commentary | <input type="checkbox"/> In a language classroom |

☐ Talking to people about rugby

☐ Other

☐ Reading rugby articles in
newspapers/online

☐ Other

Is rugby TV commentary an effective way to learn rugby language?

☐ Yes

☐ No

In what ways does Japanese rugby language differ from English rugby language? (You may choose multiple options)

☐ Position names. E.g. lock / fullback

☐ Other

☐ Plays. E.g. loop / switch

☐ Other

☐ Pronunciation of words. E.g. scrum

☐ No difference

☐ Phrases. E.g. dot it down

☐ I do not know

Can you give some examples of how rugby language is different in Japanese and in English?

Do you have any comments on the survey or on the topic of rugby language?

Thank you for taking the survey. Would you be willing to participate in a short interview and narration task? If so, please leave your contact details below and I will contact you. For your help in the interviews and narration task, you will be given ¥1,000 Amazon gift card.

Name:

E-mail:

Contact number:

Appendix 2. Needs analysis online survey for native (English) players in New Zealand

General language abilities:

	Language Can choose more than one	Proficiency level
English	<input type="checkbox"/>	<input type="text"/>
Japanese	<input type="checkbox"/>	<input type="text"/>
Tongan	<input type="checkbox"/>	<input type="text"/>
Samoan	<input type="checkbox"/>	<input type="text"/>
Fijian	<input type="checkbox"/>	<input type="text"/>
French	<input type="checkbox"/>	<input type="text"/>
Afrikaans	<input type="checkbox"/>	<input type="text"/>
German	<input type="checkbox"/>	<input type="text"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="text"/>

In which of the following countries, if any, have you played rugby and for how many seasons have you played?

	~1 season	1-2 seasons	2~ seasons
Japan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New Zealand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Australia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
South Africa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
England	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ireland	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Samoa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tonga	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fiji	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I have played / am playing the position of: (You may choose multiple options)

- ☐ 1/3
- ☐ 2
- ☐ 4/5
- ☐ 6/7
- ☐ 8
- ☐ 9
- ☐ 10
- ☐ 11/14
- ☐ 12/13
- ☐ 15

I have played with non-English speakers of English:

- ☐ Yes
- ☐ No

The following section contains questions about communication in rugby and your experience communicating with non-English rugby players/coaches.

Which of the following language difficulties, if any, have you experienced/witnessed with non-English speakers? (You may choose multiple options)

- | | |
|--|---|
| <input type="checkbox"/> Speaking to teammates about the next play in a game | <input type="checkbox"/> Speaking to the coach at practice (E.g. discussing what to do in a set-play) |
| <input type="checkbox"/> Listening to the coach at practice (E.g. explaining what to do in a set-play) | <input type="checkbox"/> Listening to the referee in a game |
| <input type="checkbox"/> Speaking to teammates in the locker room about rugby (E.g. discussing the game) | <input type="checkbox"/> Speaking to players at practice (E.g. discussing what to do in a set-play) |
| <input type="checkbox"/> Listening to teammates about the next play in a game | <input type="checkbox"/> Listening to managers about rugby (E.g. discussing the procedure for practice) |
| <input type="checkbox"/> Speaking with managers about rugby (E.g. discussing the procedure for practice) | <input type="checkbox"/> Other
<input type="text"/> |
| <input type="checkbox"/> Listening to players at practice (E.g. explaining what to do in a set-play) | <input type="checkbox"/> Other
<input type="text"/> |
| <input type="checkbox"/> Speaking to the referee in a game | <input type="checkbox"/> Other
<input type="text"/> |
| <input type="checkbox"/> Listening to teammates in the locker room talk about rugby (E.g. discussing the game) | <input type="checkbox"/> I have not witnessed/experienced any language difficulties |

Rank the following situations where language difficulties with non-English speakers occur the most between you and a non-English speaker: (With 1 being the most)

Traveling to the game

In the locker room

In the huddle

At practice

During the game

Other

The following language aspects might cause language difficulties when communicating (listening and speaking) about rugby with non-English speakers. In your experience, please rank them in order of their effect on communication: (With 1 being the most)

Everyday vocabulary

Specific vocabulary (slang / rugby terms)

Pronunciation

Grammar

Pragmatics (Gestures / turn taking / cultural aspects)

Fluency (speed)

Other

Here are some strategies you might use when language difficulties occur between you and a non-English speaking player/coach. Please tick which strategies you have used: (You may choose multiple options)

	Please tick I get them to:	Please tick I usually:	Please tick Both:
Repeat the sentence	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Speak more slowly	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Speak in simple English	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Perform the action (E.g. perform the set-play)	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Ask another player/coach to assist in the conversation	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Say 'I do not understand'	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Indicate (using gestures/body language) I do not understand	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Speak in their language	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>

	Please tick I get them to:	Please tick I usually:	Please tick Both:
Use more gestures / body language	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Ask an interpreter for assistance	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>

In your opinion, a player's ability to play rugby at their highest level is affected by language difficulties:

Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you could give advice on communicating and language to future non-English speaking rugby players coming to New Zealand, what would it be?

The following section is a short knowledge task on rugby language.

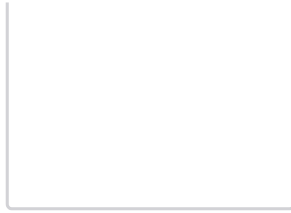
Please drag into the box any words closely related to rugby that you recognize:

Items

1: Back

Rugby words

2: Teach
3: Defense
4: Penalty
5: Concentrate
6: Fashion
7: Journal
8: Momentum
9: Border
10: Intercept
11: Sister
12: Tent
13: Jersey
14: Winger
15: Scrum
16: Agriculture
17: Offload
18: Ruck
19: Sick
20: Halfback
21: Sew
22: Negotiate
23: Lineout
24: Neighbor
25: Tightsies
26: Garage
27: Breakdown
28: Virus
29: Letter
30: Loosies

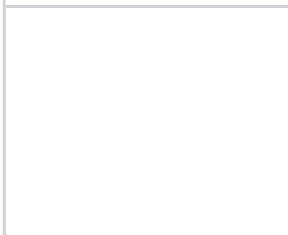


Please drag into the box any phrases closely related to rugby that you recognize:

Items

- 1: On the outside
- 2: What does that mean
- 3: You know what I mean
- 4: Bit of space
- 5: Works it away to
- 6: You can see
- 7: Trying to figure out
- 8: Inside the twenty two
- 9: First half
- 10: Does not make sense
- 11: Knock on
- 12: Taken down
- 13: For those of you who
- 14: Thank you very much
- 15: Second half
- 16: It doesn't matter
- 17: Let's go boys
- 18: On the inside
- 19: If you look at
- 20: On the ground
- 21: Over the ball
- 22: See what I am saying
- 23: Advantage line
- 24: Take a look at
- 25: Ball in hand

Rugby phrases



26: Nothing to do with

27: Know what I mean

28: Snapped up

29: What I am talking
about

30: It turns out that

What rugby words should every rugby player/coach know? (You may choose multiple options)

☐ Back

☐ Defense

☐ Penalty

☐ Momentum

☐ Intercept

☐ Jersey

☐ Winger

Scrum

☐

☐ Offload

☐ Ruck

☐ Halfback

☐ Lineout

☐ Tighties

☐ Breakdown

☐ Loosies

Others

☐

What rugby phrases should every rugby player/coach know? (You may choose multiple options)

☐ On the outside

☐ Bit of space

☐ Works it away to

☐ Inside the twenty two

☐ First half

☐ Second half

☐ Let's go boys

☐ On the inside

☐ On the ground

☐ Over the ball

☐ Advantage line

☐ Ball in hand

☐ Snapped up

☐ Taken down

☐ Knock on

☐ Others

The following section contains questions on your experience learning rugby language.

How did you learn the language you use for playing/talking about rugby? (You may choose multiple options)

- ☐ Played the game
- ☐ Watched rugby games on TV
- ☐ Talked with people about rugby
- ☐ Read rugby articles in newspapers/online
- ☐ Read rugby magazines
- ☐ Studied in a language classroom
- ☐ Other
- ☐ Other

Thinking about language difficulties, in your experience, which of the following situations, if any, have been affected by a lack of rugby language? (You may choose multiple options)

- ☐ Speaking to teammates about the next play in a game

☐ Speaking to a coach at practice (E.g. discussing what to do in a set-play)
- ☐ Listening to a coach at practice (E.g. explaining what to do in a set-play)

☐ Listening to the referee in a game
- ☐ Speaking to teammates in the locker room about rugby (E.g. discussing the game)

☐ Speaking to players at practice (E.g. discussing what to do in a set-play)
- ☐ Listening to teammates about the next play in a game

☐ Listening to managers about rugby (E.g. discussing the procedure for practice)
- ☐ Speaking with managers about rugby (E.g. discussing the procedure for practice)

☐ Other

<input type="checkbox"/>	Listening to players at practice (E.g. explaining what to do in a set-play)	<input type="checkbox"/>	Other
<input type="checkbox"/>	Speaking to the referee in a game	<input type="checkbox"/>	Other
<input type="checkbox"/>	Listening to teammates in the locker room talk about rugby (E.g. discussing the game)	<input type="checkbox"/>	None were affected

The following section contains questions on the topic of rugby language

In your opinion, how important is a knowledge of rugby language when communicating with the following people?

	Extremely important	Very important	Moderately important	Slightly important	Not at all important
Teammates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Captain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Referee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>					

Rank the following situations where rugby language occurs the most: (With 1 being the most often)

During the game

In the locker room

In the huddle

In practice

When talking to with people about rugby

Listening to TV rugby commentary

Rugby articles in newspapers/online

Rugby magazines

Other

Which of the following study methods do you think are effective for learning rugby language? (You may choose multiple options)

☐ Playing the game

☐ Listening to TV rugby commentary

☐ Talking to people about rugby

☐ Reading rugby articles in newspapers/online

☐ Reading rugby magazines

☐ In a language classroom

☐ Other

☐ Other

Is rugby TV commentary an effective way to learn rugby language?

☐ Yes

☐ No

In what ways is rugby language different between English and another language? (You may choose multiple options)

☐ Position names. E.g. lock / fullback

☐ Other

☐ Plays. E.g. loop / switch

☐ Other

☐ Pronunciation of words. E.g. Scrum

☐ No difference

☐ Phrases. E.g. dot it down

☐ I do not know

Can you give some examples of how rugby language is different in English and another language?

Do you have any comments on the survey or on the topic of rugby language?

Thank you for taking the survey. Would you be willing to participate in a short interview? If so, please leave your contact details below and I will contact you. For your help in the interviews, you will be given a \$15 gift card.

Name:

E-mail:

Contact number:

Appendix 3. Needs analysis online survey for foreign (English) coaches in Japan

General language abilities:

	Language Can choose more than one	Proficiency level
English	<input type="checkbox"/>	<input type="text"/>
Japanese	<input type="checkbox"/>	<input type="text"/>
Tongan	<input type="checkbox"/>	<input type="text"/>
Samoan	<input type="checkbox"/>	<input type="text"/>
Fijian	<input type="checkbox"/>	<input type="text"/>
French	<input type="checkbox"/>	<input type="text"/>
Afrikaans	<input type="checkbox"/>	<input type="text"/>
German	<input type="checkbox"/>	<input type="text"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="text"/>

I am currently studying Japanese:

☐ Daily
 ☐ 4-6 times a week
 ☐ 2-3 times a week
 ☐ Once a week
 ☐ I am currently not studying.

I am in Japan:

☐ To coach rugby full-time
☐ For work (other than rugby)
☐ Other

In which of the following countries, if any, have you coached rugby and for how many seasons have you coached?

	~1 season	1-2 seasons	2~ seasons
Japan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New Zealand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	~1 season	1-2 seasons	2~ seasons
Australia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
South Africa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
England	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ireland	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Samoa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tonga	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fiji	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In which of the following countries, if any, have you played rugby and for how many seasons did you play? (If you did not play, leave blank)

	~1 season	1-2 seasons	2~ seasons
Japan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New Zealand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Australia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
South Africa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
England	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ireland	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Samoa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tonga	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fiji	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I have previously played the position of: (You may choose multiple options)

- ☐ 1/3
- ☐ 2
- ☐ 4/5
- ☐ 6/7

- ☐ 8
- ☐ 9
- ☐ 10
- ☐ 11/14
- ☐ 12/13
- ☐ 15
- ☐ I did not play

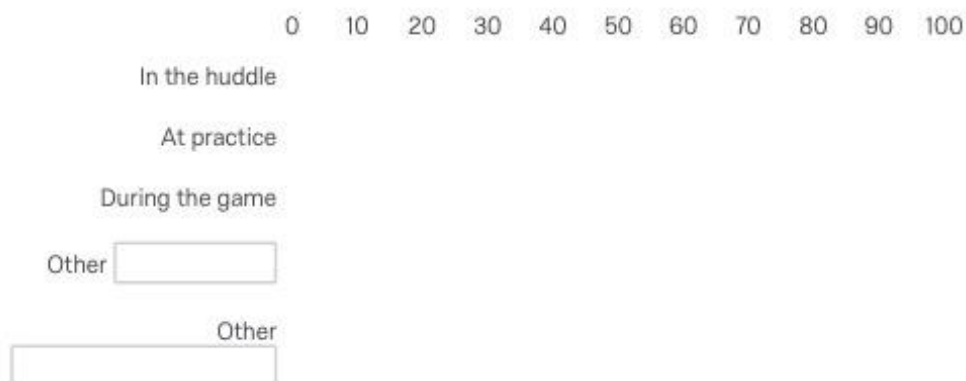
The following section contains questions about your communication in rugby and your experience communicating with non-English rugby players/coaches.

When you are listening to people in the following situations, what percentage is in English?

	0	10	20	30	40	50	60	70	80	90	100
Traveling to the game											
In the locker room											
In the huddle											
At practice											
During the game											
Other	<input type="text"/>										
Other	<input type="text"/>										

When you are speaking to people in the following situations, what percentage is in English?

	0	10	20	30	40	50	60	70	80	90	100
Traveling to the game											
In the locker room											



Which of the following language difficulties, if any, have you experienced/witnessed with non-English speakers? (You may choose multiple options)

- | | |
|---|---|
| <input type="checkbox"/> Speaking to teammates about the next play in a game | <input type="checkbox"/> Speaking to the coach at practice (E.g. discussing what to do in a set-play) |
| <input type="checkbox"/> Listening to the coach at practice (E.g. explaining what to do in a set-play) | <input type="checkbox"/> Listening to the referee in a game |
| <input type="checkbox"/> Speaking to teammates in the locker room about rugby (E.g. discussing the game) | <input type="checkbox"/> Speaking to players at practice (E.g. discussing what to do in a set-play) |
| <input type="checkbox"/> Listening to teammates about the next play in a game | <input type="checkbox"/> Listening to managers about rugby (E.g. discussing the procedure for practice) |
| <input type="checkbox"/> Speaking with managers about rugby (E.g. discussing the procedure for practice) | <input type="checkbox"/> Other <input type="text"/> |
| <input type="checkbox"/> Listening to players at practice (E.g. explaining what to do in a set-play) | <input type="checkbox"/> Other <input type="text"/> |
| <input type="checkbox"/> Speaking to the referee in a game | <input type="checkbox"/> Other <input type="text"/> |
| <input type="checkbox"/> Listening teammates in the locker room talk about rugby (E.g. discussing the game) | <input type="checkbox"/> I have not witnessed/experienced any language difficulties |

Rank the following situations where language difficulties with non-English speakers occur the most: (With 1 being the most)

Traveling to the game

In the locker room

In the huddle

At practice

During the game

Other

The following language aspects might cause language difficulties when communicating (listening and speaking) about rugby with non-English speakers. Please rank them in order of their effect on communication: (With 1 being the most)

Everyday vocabulary

Specific vocabulary (slang / rugby terms)

Pronunciation

Grammar

Pragmatics (Gestures / turn taking / cultural aspects)

Fluency (speed)

Other

Here are some strategies you might use when language difficulties occur between you and a non-English speaking player/coach. Please tick which strategies you have used: (You may choose multiple options)

	Please tick I get them to:	Please tick I usually:	Please tick Both:
Repeat the sentence	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Speak more slowly	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Speak in simple English	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Perform the action (E.g. perform the set-play)	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>

	Please tick I get them to:	Please tick I usually:	Please tick Both:
Ask another player/coach to assist in the conversation	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Say 'I do not understand'	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Indicate (using gestures/body language) I do not understand	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Speak in their language	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Use more gestures / body language	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Ask an interpreter for assistance	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>

A player's ability to play rugby at their highest level is affected by language difficulties:

Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

A coaches' ability to coach rugby at their highest level is affected by language difficulties:

Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you could give advice on communicating and language to future English-speaking rugby players coming to Japan, what would it be?

The following section is a short knowledge task on rugby language.

Please drag into the box any words closely related to rugby that you recognize:

Items

- 1: Back
- 2: Teach
- 3: Defense
- 4: Penalty
- 5: Concentrate
- 6: Fashion
- 7: Journal
- 8: Momentum
- 9: Border
- 10: Intercept
- 11: Sister
- 12: Tent
- 13: Jersey
- 14: Winger
- 15: Scrum
- 16: Agriculture
- 17: Offload

Rugby words

- 18: Ruck
- 19: Sick
- 20: Halfback
- 21: Sew
- 22: Negotiate
- 23: Lineout
- 24: Neighbor
- 25: Tights
- 26: Garage
- 27: Breakdown
- 28: Virus
- 29: Letter
- 30: Loosies

Please drag into the box any phrases closely related to rugby that you recognize:

Items

1: On the outside

2: What does that mean

3: You know what I mean

4: Bit of space

5: Works it away to

6: You can see

7: Trying to figure out

8: Inside the twenty two

9: First half

10: Does not make sense

11: Knock on

12: Taken down

Rugby phrases

13: For those of you who

14: Thank you very much

15: Second half

16: It doesn't matter

17: Let's go boys

18: On the inside

19: If you look at

20: On the ground

21: Over the ball

21: It turns out that

22: See what I am saying

23: Advantage line

24: Take a look at

25: Ball in hand

26: Nothing to do with

27: Know what I mean

28: Snapped up

29: What I am talking
about

30: It turns out that

What rugby words should every rugby player/coach know? (You may choose multiple options)

☐ Back

☐ Defense

☐ Penalty

☐ Momentum

☐ Intercept

☐ Jersey

☐ Winger

☐ Scrum

☐ Offload

☐ Ruck

☐ Halfback

☐ Lineout

☐ Tighties

☐ Breakdown

☐ Loosies

☐ Others

What rugby phrases should every rugby player/coach know? (You may choose multiple options)

- | | |
|--|---|
| <input type="checkbox"/> On the outside | <input type="checkbox"/> On the ground |
| <input type="checkbox"/> Bit of space | <input type="checkbox"/> Over the ball |
| <input type="checkbox"/> Works it away to | <input type="checkbox"/> Advantage line |
| <input type="checkbox"/> Inside the twenty two | <input type="checkbox"/> Ball in hand |
| <input type="checkbox"/> First half | <input type="checkbox"/> Snapped up |
| <input type="checkbox"/> Second half | <input type="checkbox"/> Taken down |
| <input type="checkbox"/> Let's go boys | <input type="checkbox"/> Knock on |
| <input type="checkbox"/> On the inside | <input type="checkbox"/> Others |

☐

☐

The following section contains questions on your experience learning rugby language.

How did you learn the language you use for coaching/talking about rugby? (You may choose multiple options)

- ☐ Played the game
- ☐ Coached the game
- ☐ Watched rugby games on TV
- ☐ Talked with people about rugby
- ☐ Read rugby articles in newspapers/online
- ☐ Read rugby magazines
- ☐ Studied in a language classroom
- ☐ Other

☐ Other

How did you prepare for coaching in Japan? (You may choose multiple options)

- ☐ Watched rugby games on TV (With Japanese commentary)
- ☐ Talked to people about playing / coaching abroad
- ☐ Read Japanese rugby articles in newspapers / online
- ☐ Read Japanese rugby magazines
- ☐ Took Japanese language lessons
- ☐ Other
- ☐ I did not prepare

I am currently studying Japanese rugby language:

Daily 4-6 times a week 2-3 times a week Once a week I am currently not studying.

☐ ☐ ☐ ☐ ☐

I am currently studying Japanese rugby language by: (You may choose multiple options)

- ☐ Listening to Japanese TV rugby commentary
- ☐ Talking to people about rugby
- ☐ Reading Japanese rugby articles in newspapers/online
- ☐ Reading Japanese rugby magazines
- ☐ In a language classroom
- ☐ Other

Thinking about language difficulties, which of the following situations, if any, have been affected by a lack of rugby language? (You may choose multiple options)

- ☐ Speaking to teammates about the next play in a game
- ☐ Speaking to a coach at practice (E.g. discussing what to do in a set-play)
- ☐ Listening to a coach at practice (E.g. explaining what to do in a set-play)
- ☐ Listening to the referee in a game

<input type="checkbox"/> Speaking to teammates in the locker room about rugby (E.g. discussing the game)	<input type="checkbox"/> speaking to players at practice (E.g. discussing what to do in a set-play)
<input type="checkbox"/> Listening to teammates about the next play in a game	<input type="checkbox"/> Listening to managers about rugby (E.g. discussing the procedure for practice)
<input type="checkbox"/> Speaking with managers about rugby (E.g. discussing the procedure for practice)	<input type="checkbox"/> Other <input type="text"/>
<input type="checkbox"/> Listening to players at practice (E.g. explaining what to do in a set-play)	<input type="checkbox"/> Other <input type="text"/>
<input type="checkbox"/> Speaking to the referee in a game	<input type="checkbox"/> Other <input type="text"/>
<input type="checkbox"/> Listening to teammates in the locker room talk about rugby (E.g. discussing the game)	<input type="checkbox"/> None were affected

The following section contains questions on the topic of rugby language.

How important is a knowledge of rugby language when communicating with the following people?

	Extremely important	Very important	Moderately important	Slightly important	Not at all important
Teammates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Captain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Referee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Rank the following situations where rugby language occurs the most: (With 1 being the most often)

- During the game
- In the locker room
- In the huddle

In practice

When talking to with people about rugby

Listening to TV rugby commentary

Rugby articles in newspapers/online

Rugby magazines

Other

Which of the following study methods do you think are effective for learning rugby language? (You may choose multiple options)

☐ Playing the game

☐ Coaching the game

☐ Listening to TV rugby commentary

☐ Talking to people about rugby

☐ Reading rugby articles in newspapers/online

☐ Reading rugby magazines

☐ In a language classroom

☐ Other

☐ Other

Is rugby TV commentary an effective way to learn rugby language?

☐ Yes

☐ No

In what ways does Japanese rugby language differ from English rugby language? (You may choose multiple options)

☐ Position names. E.g. lock / fullback

☐ Plays. E.g. loop / switch

☐ Other

☐ Other

Can you give some examples of how rugby language is different in Japanese and in English?

Do you have any comments on the survey or on the topic of rugby language?

Thank you for taking the survey. Would you be willing to participate in a short interview and narration task? If so, please leave your contact details below and I will contact you. For your help in the interviews and narration task, you will be given ¥ 1,000 Amazon gift card.

Name:

E-mail:

Contact number:

Appendix 4. Needs analysis online survey for native (English) coaches in New Zealand

General language abilities:

	Language Can choose more than one	Proficiency level
English	<input type="checkbox"/>	<input type="text"/>
Japanese	<input type="checkbox"/>	<input type="text"/>
Tongan	<input type="checkbox"/>	<input type="text"/>
Samoan	<input type="checkbox"/>	<input type="text"/>
Fijian	<input type="checkbox"/>	<input type="text"/>
French	<input type="checkbox"/>	<input type="text"/>
Afrikaans	<input type="checkbox"/>	<input type="text"/>
German	<input type="checkbox"/>	<input type="text"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="text"/>

In which of the following countries, if any, have you coached rugby and for how many seasons have you coached?

	~1 Season	1-2 seasons	2~ seasons
Japan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New Zealand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Australia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
South Africa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
England	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ireland	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Samoa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tonga	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fiji	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In which of the following countries, if any, have you played rugby and for how many seasons did you play? (If you did not play, leave blank)

	~1 season	1-2 seasons	2~ seasons
Japan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New Zealand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Australia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
South Africa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
England	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ireland	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Samoa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tonga	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fiji	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I have previously played the position of: (You may choose multiple options)

- ☐ 1/3
- ☐ 2
- ☐ 4/5
- ☐ 6/7
- ☐ 8
- ☐ 9
- ☐ 10
- ☐ 11/14
- ☐ 12/13
- ☐ 15
- ☐ I did not play

I have played with / coached non-English speakers of English:

- ☐ Yes
- ☐ No

The following section contains questions about communication in rugby and your experience communicating with non-English rugby players/coaches.

Which of the following language difficulties, if any, have you experienced/witnessed with non-English speakers? (You may choose multiple options)

- | | |
|---|---|
| <input type="checkbox"/> Speaking to teammates about the next play in a game | <input type="checkbox"/> Speaking to coach at practice (E.g. discussing what to do in a set-play) |
| <input type="checkbox"/> Listening to coach at practice (E.g. explaining what to do in a set-play) | <input type="checkbox"/> Listening to the referee in a game |
| <input type="checkbox"/> Speaking to teammates in the locker room about rugby (E.g. discussing the game) | <input type="checkbox"/> Speaking to players at practice (E.g. discussing what to do in a set-play) |
| <input type="checkbox"/> Listening to teammates about the next play in a game | <input type="checkbox"/> Listening to managers about rugby (E.g. discussing the procedure for practice) |
| <input type="checkbox"/> Speaking with managers about rugby (E.g. discussing the procedure for practice) | <input type="checkbox"/> Other
<input type="text"/> |
| <input type="checkbox"/> Listening to players at practice (E.g. explaining what to do in a set-play) | <input type="checkbox"/> Other
<input type="text"/> |
| <input type="checkbox"/> Speaking to the referee in a game | <input type="checkbox"/> Other
<input type="text"/> |
| <input type="checkbox"/> Listening teammates in the locker room talk about rugby (E.g. discussing the game) | <input type="checkbox"/> I have not witnessed/experienced any language difficulties |

Rank the following situations where language difficulties with non-English speakers occurs the most between you and a non-English speaker: (With 1 being the most)

Traveling to the game

In the locker room

In the huddle

At practice

During the game

Other

The following language aspects might cause language difficulties when communicating (listening and speaking) about rugby with non-English speakers. In your experience, please rank them in order of their effect on communication: (With 1 being the most)

Everyday vocabulary

Specific vocabulary (slang / rugby terms)

Pronunciation

Grammar

Pragmatics (Gestures / turn taking / cultural aspects)

Fluency (speed)

Other

Here are some strategies you might use when language difficulties occur between you and a non-English speaking player/coach. Please tick which strategies you have used: (You may choose multiple options)

	Please tick I get them to:	Please tick I usually:	Please tick Both:
Repeat the sentence	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Speak more slowly	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Speak in simple English	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Perform the action (E.g. perform the set-play)	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Ask another player/coach to assist in the conversation	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Say 'I do not understand'	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Indicate (using gestures/body language) I do not understand	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Speak in their language	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Use more gestures / body language	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>

	Please tick I get them to:	Please tick I usually:	Please tick Both:
Ask an interpreter for assistance	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>

In your opinion, a player's ability to play rugby at their highest level is affected by language difficulties:

Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In your opinion, a coaches' ability to coach rugby at their highest level is affected by language difficulties:

Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you could give advice on communicating and language to future non-English speaking rugby players coming to New Zealand, what would it be?

The following section is a short knowledge task on rugby language.

Please drag into the box any words closely related to rugby that you recognize:

Items

- 1: Back
- 2: Teach
- 3: Defense
- 4: Penalty
- 5: Concentrate
- 6: Fashion
- 7: Journal
- 8: Momentum
- 9: Border
- 10: Intercept
- 11: Sister
- 12: Tent
- 13: Jersey
- 14: Winger
- 15: Scrum
- 16: Agriculture
- 17: Offload
- 18: Ruck
- 19: Sick
- 20: Halfback
- 21: Sew
- 22: Negotiate
- 23: Lineout
- 24: Neighbor
- 25: Tights
- 26: Garage

Rugby words

27: Breakdown

28: Virus

29: Letter

30: Loosies

Please drag into the box any phrases closely related to rugby that you recognize:

Items

- 1: On the outside
- 2: What does that mean
- 3: You know what I mean
- 4: Bit of space
- 5: Works it away to
- 6: You can see
- 7: Trying to figure out
- 8: Inside the twenty two
- 9: First half
- 10: Does not make sense
- 11: Knock on
- 12: Taken down
- 13: For those of you who
- 14: Thank you very much
- 15: Second half
- 16: It doesn't matter
- 17: Let's go boys
- 18: On the inside
- 19: If you look at
- 20: On the ground
- 21: Over the ball

Rugby phrases

- 21: It turns out that
- 22: See what I am saying
- 23: Advantage line
- 24: Take a look at
- 25: Ball in hand
- 26: Nothing to do with
- 27: Know what I mean
- 28: Snapped up
- 29: What I am talking about
- 30: It turns out that

What rugby words should every rugby player/coach know? (You may choose multiple options)

- | | |
|------------------------------------|------------------------------------|
| <input type="checkbox"/> Back | <input type="checkbox"/> Offload |
| <input type="checkbox"/> Defense | <input type="checkbox"/> Ruck |
| <input type="checkbox"/> Penalty | <input type="checkbox"/> Halfback |
| <input type="checkbox"/> Momentum | <input type="checkbox"/> Lineout |
| <input type="checkbox"/> Intercept | <input type="checkbox"/> Tighties |
| <input type="checkbox"/> Jersey | <input type="checkbox"/> Breakdown |
| <input type="checkbox"/> Winger | <input type="checkbox"/> Loosies |
| Scrum | Others |

<input type="checkbox"/>	<input type="checkbox"/>
	<div style="border: 1px solid #ccc; height: 60px; width: 280px;"></div>

What rugby phrases should every rugby player/coach know? (You may choose multiple options)

- | | |
|---|--|
| <input type="checkbox"/> On the outside | <input type="checkbox"/> On the ground |
| <input type="checkbox"/> Bit of space | <input type="checkbox"/> Over the ball |

- ☐ Works it away to
- ☐ Inside the twenty two
- ☐ First half
- ☐ Second half
- ☐ Let's go boys
- ☐ On the inside

☐

- ☐ Advantage line
- ☐ Ball in hand
- ☐ Snapped up
- ☐ Taken down
- ☐ Knock on
- ☐ Others

☐

The following section contains questions on your experience learning rugby language.

How did you learn the language you use for coaching/talking about rugby? (You may choose multiple options)

- ☐ Played the game
- ☐ Coached the game
- ☐ Watched rugby games on TV
- ☐ Talked with people about rugby
- ☐ Read rugby articles in newspapers/online
- ☐ Read rugby magazines
- ☐ Studied in a language classroom
- ☐ Other
- ☐ Other

Thinking about language difficulties, in your experience, which of the following situations, if any, have been affected by a lack of rugby language? (You may choose multiple options)

- | | |
|--|---|
| <input type="checkbox"/> Speaking to teammates about the next play in a game | <input type="checkbox"/> Speaking to a coach at practice (E.g. discussing what to do in a set-play) |
| <input type="checkbox"/> Listening to a coach at practice (E.g. explaining what to do in a set-play) | <input type="checkbox"/> Listening to the referee in a game |
| <input type="checkbox"/> | <input type="checkbox"/> |

<input type="checkbox"/> Speaking to teammates in the locker room about rugby (E.g. discussing the game)	<input type="checkbox"/> Speaking to players at practice (E.g. discussing what to do in a set-play)
<input type="checkbox"/> Listening to teammates about the next play in a game	<input type="checkbox"/> Listening to managers about rugby (E.g. discussing the procedure for practice)
<input type="checkbox"/> Speaking with managers about rugby (E.g. discussing the procedure for practice)	<input type="checkbox"/> Other <input type="text"/>
<input type="checkbox"/> Listening to players at practice (E.g. explaining what to do in a set-play)	<input type="checkbox"/> Other <input type="text"/>
<input type="checkbox"/> Speaking to the referee in a game	<input type="checkbox"/> Other <input type="text"/>
<input type="checkbox"/> Listening to teammates in the locker room talk about rugby (E.g. discussing the game)	<input type="checkbox"/> None were affected

The following section contains questions on the topic of rugby language

In your opinion, how important is a knowledge of rugby language when communicating with the following people?

	Extremely important	Very important	Moderately important	Slightly important	Not at all important
Teammates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Captain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Referee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Rank the following situations where rugby language occurs the most between you and a non-English speaker: (With 1 being the most often)

- During the game
- In the locker room
- In the huddle

In practice

When talking to with people about rugby

Listening to TV rugby commentary

Rugby articles in newspapers/online

Rugby magazines

Other

Which of the following study methods do you think are effective for learning rugby language? (You may choose multiple options)

☐ Playing the game

☐ Coaching the game

☐ Listening to TV rugby commentary

☐ Talking to people about rugby

☐ Reading rugby articles in newspapers/online

☐ Reading rugby magazines

☐ In a language classroom

☐ Other

☐ Other

Is rugby TV commentary an effective way to learn rugby language?

☐ Yes

☐ No

In what ways is rugby language different between English and another language? (You may choose multiple options)

☐ Position names. E.g. lock / fullback

☐ Plays. E.g. loop / switch

☐ Other

☐ Other

- | | |
|---|--|
| <input type="checkbox"/> Pronunciation of words. E.g. Scrum | <input type="checkbox"/> No difference |
| <input type="checkbox"/> Phrases. E.g. dot it down | <input type="checkbox"/> I do not know |

Can you give some examples of how rugby language is different in English and another language?

Do you have any comments on the survey or on the topic of rugby language?

Thank you for taking the survey. Would you be willing to participate in a short interview? If so, please leave your contact details below and I will contact you. For your help in the interviews, you will be given a \$15 gift card.

Name:

E-mail:

Contact number:

Powered by Qualtrics

Appendix 5. Needs analysis online survey for native (Japanese) players in Japan

English ▾

Introduction

My name is Stuart Benson and I am a doctoral student in the School of Linguistics and Applied Language Studies at Victoria University of Wellington. This research has been approved by the Victoria University of Wellington Human Ethics Committee [Reference number 24720].

My study is investigating the language needs and language use in rugby, specifically in Japan and New Zealand. The aim of the study is to understand what language is used in the rugby context by native and foreign rugby players and coaches. This research is confidential. The findings may be used in a journal article or a conference presentation at some later stage. The survey will take approximately 10-20 minutes to complete. By clicking on the button below to start the survey, you give consent for your participation.

If you have any questions, either now or in the future, please feel free to contact me: stuart.benson@vuw.ac.nz. or my supervisor Dr. Averil Coxhead: averil.coxhead@vuw.ac.nz.

If you have any concerns about the ethical conduct of the research you may contact the Victoria University HEC Convenor: Associate Professor Susan Corbett. Email susan.corbett@vuw.ac.nz or telephone +64-4-463 5480.

Thank you for your help with this project.

ヴィクトリア大学ウェリントン校の言語学&応用言語学研究科の博士課程後期に所属しています、スチュアート・ベンソンと申します。本研究は、ヴィクトリア大学ウェリントン校の倫理審査を受け、承認されております。（参照番号: 24720）

本研究の目的は、日本とニュージーランドのラグビーにおける言語ニーズと使用を調査し、英語ネイティブラグビー選手と外国人選手、コーチによる言語ニーズと使用について理解を深めることです。本研究は、匿名で実施されます調査結果は、ジャーナル記事または会議プレゼンテーションで使用することができます。

この調査アンケートの回答には約10-20分を要します。下のボタンをクリックすると、参加に同意することになります。

質問がある場合は、私に連絡してください: stuart.benson@vuw.ac.nz それとも指導教員アブリン・コックスヘッド: averil.coxhead@vuw.ac.nz

本研究の倫理規定について不審な点がある場合には、下記のヴィクトリア大学ウェリントン校倫理審査委員会招集担当: 准教授 Susan Corbettまでご連絡ください。

あなたの言語使用について、当てはまるものを選んでください。

- ☐ 英語のネイティブスピーカー
- ☐ ネイティブではない英語話者
- ☐ 日本語話者

Japanese player Japan

一般的な言語能力

	言語 ひとつ以上選ぶことができます。	修得度
英語	<input type="radio"/>	<input type="text"/>
日本語	<input type="radio"/>	<input type="text"/>
トンガ語	<input type="radio"/>	<input type="text"/>
サモア語	<input type="radio"/>	<input type="text"/>
フィジー語	<input type="radio"/>	<input type="text"/>
フランス語	<input type="radio"/>	<input type="text"/>
アフリカーンス語	<input type="radio"/>	<input type="text"/>
ドイツ語	<input type="radio"/>	<input type="text"/>
その他 <input type="text"/>	<input type="radio"/>	<input type="text"/>

次の国の中で、ラグビーをプレーしていたことのある国といくつかのシーズンでプレーしたかを選んでください。

	～1 シーズン	1-2 シーズン	2～ シーズン
日本	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ニュージーランド	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
オーストラリア	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
南アフリカ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
イギリス	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
アイルランド	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

continued

	～1 シーズン	1-2 シーズン	2～ シーズン
サモア	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
トンガ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
フィジー	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
その他 <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
その他 <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

あなたが今までプレーしたことのあるポジション・現在プレーしているポジションを選んでください。
(複数選択可)

- ☐ 1/3
- ☐ 2
- ☐ 4/5
- ☐ 6/7
- ☐ 8
- ☐ 9
- ☐ 10
- ☐ 11/14
- ☐ 12/13
- ☐ 15

日本語話者ではない人とプレーをしたことはありますか？

- ☐ はい
- ☐ いいえ

以下のセクションにはラグビープレイ内のコミュニケーションと、英語ネイティブスピーカーの選手・コーチとのコミュニケーションに関する質問が含まれます。

以下の状況の中で、言語障害を経験した、または発生しているのを目撃したことはありますか？（複数回答可）

- ☐ 試合中にチームメイトと次のプレーについて
- ☐ 練習中にコーチと話す（例：セットプレー

<p>で話す</p> <p><input type="checkbox"/> 練習中にコーチの話を聞く（例：セットプレーで何をすべきかの説明</p> <p><input type="checkbox"/> ロッカールームでチームメイトとラグビーについて話す（例：試合についてのディスカッションなど）</p> <p><input type="checkbox"/> 試合中にチームメイトの次のプレーについての話を聞く</p> <p><input type="checkbox"/> マネージャーとラグビーについて話す（例：練習手順についてのディスカッションなど）</p> <p><input type="checkbox"/> 練習中に選手たちの話を聞く（例：セットプレーで何をすべきかの説明など）</p> <p><input type="checkbox"/> 試合中にレフリーと話す</p> <p><input type="checkbox"/> ロッカールームでチームメイトがラグビーについて話しているのを聞く（例：試合についてのディスカッション）</p>	<p>で何をすべきかなど）</p> <p><input type="checkbox"/> 試合中にレフリーの話を聞く</p> <p><input type="checkbox"/> 練習中に選手と話す（例：セットプレーで何をすべきかのディスカッション）</p> <p><input type="checkbox"/> マネージャーのラグビーについての話を聞く（例：練習手順についてのディスカッションなど）</p> <p><input type="checkbox"/> その他</p> <div style="border: 1px solid black; height: 60px; width: 100%;"></div> <p><input type="checkbox"/> その他</p> <div style="border: 1px solid black; height: 60px; width: 100%;"></div> <p><input type="checkbox"/> その他</p> <div style="border: 1px solid black; height: 60px; width: 100%;"></div> <p><input type="checkbox"/> 言語障害を体験、目撃したことはない</p>
--	---

英語ネイティブスピーカーとの言語障害が一番起こりやすいと感じる状況に順位をつけてください。（1が1位です）

試合に向かう途中

ロッカールーム内

ハドル中

練習中

試合中

試合中

その他

英語ネイティブスピーカーとラグビーについてコミュニケーション（リスニング・スピーキング）をしている際に、言語障害が起こる要因になっていると感じる順に順位をつけてください。（1が1位です）

日常語彙

専門的語彙(スラング / ラグビー用語)

発音

文法

言葉以外のもの (ジェスチャー / 発話交替 / 文化的側面など)

流暢さ (スピード)

その他

あなたと英語ネイティブスピーカーの選手やコーチの間で言語障害が発生した際に、使用したことのある方法にチェックを入れてください。（複数選択可）

	チェックを入れてください 相手にさせること：	チェックを入れてください 自分がすること：	チェックを入れてください 両方：
文章を復唱する	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
もっとゆっくり話す	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
簡単な英語で話す	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
行動で表す（例：セットプレーを実行するなど）	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
他の選手やコーチに会話のアシスタントを頼む	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	チェックを入れてください 相手にさせること：	チェックを入れてください 自分がすること：	チェックを入れてください 両方：
「理解できない」と伝える	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ジェスチャーやボディーラングエージを使って理解できないことを伝える	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
相手の言語で話す	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
より多くのジェスチャーやボディーラングエージを使用する	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
通訳者にアシスタントを頼む	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他 <div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他 <div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他 <div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

選手が最高の状態でラグビーをプレーする能力は、言語の問題によって影響を受ける。

強く思う ☐ そう思う ☐ ややそう思う ☐ どちらともい ☐ ややそう思わ ☐ そう思わない ☐ まったくそう ☐
 えない ☐ ない ☐ 思わない ☐

将来日本に来る日本語が話せないラグビー選手に、コミュニケーションや言語についてアドバイスをするとしたら、何と伝えますか？

次のセクションは、英語のラグビー用語の知識問題です。

あなたがラグビーに密接に関係していると思う言葉をボックスにドラッグしてください。

Items

Back

Teach

Defense

Penalty

Concentrate

Fashion

Journal

Momentum

Border

Intercept

Sister

Tent

Jersey

Winger

Scrum

Agriculture

Offload

Ruck

Sick

ラグビーワード

Halfback

Sew

Negotiate

Lineout

Neighbor

Tighties

Garage

Breakdown

Virus

Letter

Loosies

あなたがラグビーと密接に関係していると思うフレーズをボックスにドラッグしてください。

Items

On the outside

What does that mean

You know what I mean

Bit of space

Works it away

You can see

Trying to figure out

Inside the twenty two

First half

Does not make sense

Knock on

Taken down

For those of you who

Thank you very much

Second half

ラグビーフレーズ

It doesn't matter
Let's go boys
On the inside
If you look at
On the ground
Over the ball
It turns out that
See what I am saying
Advantage line
Take a look at
Ball in hand
Nothing to do with
Know what I mean
Snapped up
What I am talking about

すべてのラグビー選手、コーチが知っておくべきだと思う英語のラグビーワードを選んでください。（複数選択可）

- ☐ Back
- ☐ Defense
- ☐ Penalty
- ☐ Momentum
- ☐ Intercept
- ☐ Jersey
- ☐ Winger
- ☐ Scrum
- ☐ Offload
- ☐ Ruck
- ☐ Halfback
- ☐ Lineout
- ☐ Tights
- ☐ Breakdown

☐ Loosies

☐ その他

すべてのラグビー選手、コーチが知っておくべきだと思う英語のラグビーフレーズを選んでください。
(複数選択可)

☐ On the outside

☐ Bit of space

☐ Works it away to

☐ Inside the twenty two

☐ First half

☐ Second half

☐ Let's go boys

☐ On the Inside

☐ On the ground

☐ Over the ball

☐ Advantage line

☐ Ball in hand

☐ Snapped up

☐ Taken down

☐ Knock on

☐ その他

次のセクションには、ラグビー言語学習体験についての質問が含まれています。

あなたはラグビーをプレーするため・ラグビーについて話すための言葉をどのようにして学びましたか？
(複数選択可)

- ☐ 試合でプレーした
- ☐ テレビでラグビーの試合を見た
- ☐ ラグビーについて人と話した
- ☐ ラグビーについての記事を新聞やインターネットで読んだ
- ☐ ラグビーマガジンを読んだ
- ☐ 選手のための勉強会で勉強した
- ☐ その他

- ☐ その他

言語障害について、次の状況の中でラグビー言語の欠如によって影響を受けたものはどれですか？（複数選択可）

- | | |
|---|--|
| <input type="checkbox"/> 試合中にチームメイトと次のプレーについて話すとき | <input type="checkbox"/> 練習中にコーチと話するとき（例：セットプレーで何をするかのディスカッション） |
| <input type="checkbox"/> 練習中にコーチの話を聞くととき（例：セットプレーで何をすべきかの説明） | <input type="checkbox"/> 試合中にレフリーの話を聞くととき |
| <input type="checkbox"/> ロッカールームでチームメイトとラグビーについて話すとき（例：試合についてのディスカッションなど） | <input type="checkbox"/> 練習中に選手と話するとき（例：セットプレーで何をするかのディスカッション） |
| <input type="checkbox"/> 試合中にチームメイトの次のプレーについての話を聞くととき | <input type="checkbox"/> マネージャーのラグビーについての話を聞く（例：練習手順についてのディスカッションなど） |
| <input type="checkbox"/> マネージャーとラグビーについて話すとき（例：練習手順についてのディスカッションなど） | <input type="checkbox"/> その他 |

- ☐ 練習中に選手たちの話を聞くととき（例：セ
- ☐ その他

ットプレーで何をするかの説明など)

試合中にレフリーに話しかける

その他

☐☐

☐ ロッカールームでチームメイトがラグビーについて話しているのを聞く（例：試合についてのディスカッション）
☐ 影響を受けていない

次のセクションにはラグビー言語についての質問が含まれます。

以下の人々とコミュニケーションを取る際に、ラグビー言語の知識はどのくらい重要ですか？

	きわめて重要だ	とても重要だ	重要だ	少し重要だ	まったく重要ではない
チームメイト	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
キャプテン	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
コーチ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
レフリー	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
マネージャー	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
その他 <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ラグビー言語が最も多く使用される状況順に順位をつけてください。（1が1位です）

試合中

ロッカールーム内

ハドル中

練習中

人とラグビーについて話しているとき

テレビでラグビー解説を聞いているとき

新聞やインターネット上のラグビーに関する記事

ラグビーマガジン

その他

ラグビー言語を効果的に学ぶことができると思う方法を次の選択肢から選んでください。（複数選択可）

- ☐ 試合に出ること
- ☐ テレビのラグビー解説を聞くこと
- ☐ 人とラグビーについて話すこと
- ☐ ラグビーの記事を新聞やインターネットで読むこと
- ☐ ラグビーマガジンを読むこと
- ☐ 選手のための勉強会で勉強すること
- ☐ その他
- ☐ その他

テレビのラグビー解説はラグビー言語を学ぶ上で効果的だと思いますか？

- ☐ はい
- ☐ いいえ

どのように日本のラグビー言語は英語のラグビー言語と異なるのか選択してください。（複数選択可）

- ☐ ポジションの名前 (例) lock / fullback
- ☐ セットプレイ (例) loop / switch
- ☐ 単語の発音 (例) Scrum
- ☐ フレーズ (例) dot it down
- ☐ その他

- ☐ その他
- ☐ 違いはない
- ☐ わからない

ラグビー言語が日本語と英語でどう違うのか、いくつかの例を挙げてください。

この調査、またラグビー言語の研究に関して何かご意見があればお聞かせください。

調査にご参加いただきありがとうございました。インタビューとナレーション課題参加することを望まれますか？もしそうであれば、以下に連絡先の入力をお願いします。インタビューとナレーション課題にご協力いただければ、1,000円分のAmazonギフトカードをお渡しします。

名前：

メールアドレス：

電話番号：

Appendix 6. Needs analysis online survey for native (Japanese) coaches in Japan

	言語 ひとつ以上選ぶことができます。	修得度
英語	<input type="radio"/>	<input type="text"/>
日本語	<input type="radio"/>	<input type="text"/>
トンガ語	<input type="radio"/>	<input type="text"/>
サモア語	<input type="radio"/>	<input type="text"/>
フィジー語	<input type="radio"/>	<input type="text"/>
フランス語	<input type="radio"/>	<input type="text"/>
アフリカーンス語	<input type="radio"/>	<input type="text"/>
ドイツ語	<input type="radio"/>	<input type="text"/>
その他 <input type="text"/>	<input type="radio"/>	<input type="text"/>

次の国の中で、コーチをした経験のある国とそのシーズンの数を選んでください（複数選択可）

	～1 シーズン	1-2 シーズン	2～ シーズン
日本	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ニュージーランド	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
オーストラリア	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
南アフリカ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
イギリス	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
アイルランド	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
サモア	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
トンガ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
フィジー	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
その他 <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
その他 <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

次の国の中で、ラグビーをプレーしたことのある国といくつのシーズンでプレーしたかを選んでください。もしない場合は空欄のままにしてください。（複数選択可）

	～1 シーズン	1-2 シーズン	2～ シーズン
日本	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ニュージーランド	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
オーストラリア	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
南アフリカ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
イギリス	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
アイルランド	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
サモア	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
トンガ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
フィジー	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
その他	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>			
その他	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>			

過去にプレーしていたポジションを選んでください（複数選択可）

- ☐ 1/3
☐ 2
☐ 4/5
☐ 6/7
☐ 8
☐ 9
☐ 10
☐ 11/14
☐ 12/13
☐ 15
☐ プレーしていない

日本語話者ではない人にコーチされた・一緒にプレーしたことはありますか？

- ☐ はい
☐ いいえ

以下のセクションにはラグビープレイ内のコミュニケーションと、英語ネイティブスピーカーの選手・コーチとのコミュニケーションに関する質問が含まれます。

以下の状況の中で、言語障害を経験した、または発生しているのを目撃したことはありますか？（複数回答可）

- | | |
|--|---|
| <input type="checkbox"/> 試合中にチームメイトと次のプレーについて話す | <input type="checkbox"/> 練習中にコーチと話す（例：セットプレーで何をすべきかなど） |
| <input type="checkbox"/> 練習中にコーチの話を聞く（例：セットプレーで何をすべきかの説明 | <input type="checkbox"/> 試合中にレフリーの話を聞く |
| <input type="checkbox"/> ロッカールームでチームメイトとラグビーについて話す（例：試合についてのディスカッションなど） | <input type="checkbox"/> 練習中に選手と話す（例：セットプレーで何をするかディスカッション） |
| <input type="checkbox"/> 試合中にチームメイトの次のプレーについての話を聞く | <input type="checkbox"/> マネージャーのラグビーについての話を聞く（例：練習手順についてのディスカッションなど） |
| <input type="checkbox"/> マネージャーとラグビーについて話す（例：練習手順についてのディスカッションなど） | <input type="checkbox"/> その他
<div style="border: 1px solid black; height: 60px; width: 100%;"></div> |
| <input type="checkbox"/> 練習中に選手たちの話を聞く（例：セットプレーで何をするか説明など） | <input type="checkbox"/> その他
<div style="border: 1px solid black; height: 60px; width: 100%;"></div> |
| <input type="checkbox"/> 試合中にレフリーと話す | <input type="checkbox"/> その他
<div style="border: 1px solid black; height: 60px; width: 100%;"></div> |
| <input type="checkbox"/> ロッカールームでチームメイトがラグビーについて話しているのを聞く（例：試合についてのディスカッション） | <input type="checkbox"/> 言語障害を体験、目撃したことはない |

英語ネイティブスピーカーとの言語障害が一番起こりやすいと感じる状況に順位をつけてください。（1が1位です）

試合に向かう途中

ロッカールーム内

ハドル中

練習中

試合中

その他

英語ネイティブスピーカーとラグビーについてコミュニケーション（リスニング・スピーキング）をしている際に、言語障害が起こる要因になっていると感じる順に順位をつけてください。（1が1位です）

日常語彙

専門的語彙(スラング / ラグビー用語)

発音

文法

言葉以外のもの (ジェスチャー / 発話交替 / 文化的側面など)

流暢さ (スピード)

その他

あなたと英語ネイティブスピーカーの選手やコーチの間で言語障害が発生した際に、使用したことのある方法にチェックを入れてください。（複数選択可）

チェックを入
れてください

チェックを入れてく
ださい

チェック
を入れて
ください

	相手にさせる チェックを 入れてください	自分がやる チェックを 入れてください	両方 を入れて ください
--	----------------------------	---------------------------	--------------------

	相手にさせる こと：	自分がすること：	両方：
文章を復唱する	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
もっとゆっくり話す	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
簡単な英語で話す	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
行動で表す（例：セットプレーを実行する など）	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
他の選手やコーチに会話のアシスタントを 頼む	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
「理解できない」と伝える	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ジェスチャーやボディーラングエージを使 って理解できないことを伝える	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
相手の言語で話す	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
より多くのジェスチャーやボディーラング エージを使用する	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
通訳者にアシスタントを頼む	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他 <div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他 <div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	チェックを入れてください	チェックを入れてください	チェックを入れてください
	相手にさせること：	自分がすること：	両方：
その他 <div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

選手が最高の状態でラグビーをプレーする能力は、言語の問題によって影響を受ける。

強く思う ☐ そう思う ☐ やや思う ☐ どちらともい ☐ やや思う ☐ そう思わない ☐ まったくそう ☐
 えない ☐ ない ☐ 思わない ☐

コーチが最高の状態でラグビーをコーチする能力は、言語の問題によって影響を受ける。

強く思う ☐ そう思う ☐ やや思う ☐ どちらともい ☐ やや思う ☐ そう思わない ☐ まったくそう ☐
 えない ☐ ない ☐ 思わない ☐

将来日本に来る日本語が話せないラグビー選手に、コミュニケーションや言語についてアドバイスをする
 としたら、何と伝えますか？

次のセクションは、英語のラグビー用語の知識問題です。

あなたがラグビーに密接に関係していると思う言葉をボックスにドラッグしてください。

Items

Back
Teach
Defense
Penalty
Concentrate
Fashion
Journal
Momentum
Border
Intercept
Sister
Tent
Jersey
Winger
Scrum
Agriculture
Offload
Ruck
Sick
Halfback
Sew
Negotiate
Lineout
Neighbor
Tighties
Garage
Breakdown

ラグビーワード

Virus

Letter

Loosies

あなたがラグビーと密接に関係していると思うフレーズをボックスにドラッグしてください。

Items

On the outside

What does that mean

You know what I mean

Bit of space

Works it away

You can see

Trying to figure out

Inside the twenty two

First half

Does not make sense

Knock on

Taken down

For those of you who

Thank you very much

Second half

It doesn't matter

Let's go boys

On the inside

If you look at

On the ground

Over the ball

It turns out that

See what I am saying

ラグビーフレーズ

Advantage line

Take a look at

Ball in hand

Nothing to do with

Know what I mean

Snapped up

What I am talking about

すべてのラグビー選手、コーチが知っておくべきだと思う英語のラグビーワードを選んでください。（複数選択可）

- ☐ Back
- ☐ Defense
- ☐ Penalty
- ☐ Momentum
- ☐ Intercept
- ☐ Jersey
- ☐ Winger
- ☐ Scrum
- ☐ Offload
- ☐ Ruck
- ☐ Halfback
- ☐ Lineout
- ☐ Tighties
- ☐ Breakdown
- ☐ Loosies
- ☐ その他

すべてのラグビー選手、コーチが知っておくべきだと思う英語のラグビーフレーズを選んでください。（複数選択可）

- ☐ On the outside
- ☐ Bit of space
- ☐ Works it away to
- ☐ Inside the twenty two
- ☐ First half
- ☐ Second half
- ☐ Let's go boys
- ☐ On the Inside
- ☐ On the ground
- ☐ Over the ball
- ☐ Advantage line
- ☐ Ball in hand
- ☐ Snapped up
- ☐ Taken down
- ☐ Knock on
- ☐ その他

次のセクションには、ラグビー言語学習体験についての質問が含まれています。

あなたはどのようにしてラグビーをコーチする・ラグビーについて話すための言葉を学びましたか？（複数選択可）

- ☐ 試合でプレーした
- ☐ 試合をコーチした
- ☐ テレビでラグビーの試合を見た
- ☐ ラグビーについて人と話した
- ☐ ラグビーについての記事を新聞やインターネットで読んだ
- ☐ ラグビーマガジンを読んだ
- ☐ 選手のための勉強会で勉強した

☐ その他

☐ その他

言語障害について、次の状況の中でラグビー言語の欠如によって影響を受けたものはどれですか？（複数選択可）

- | | |
|---|--|
| <input type="checkbox"/> 試合中にチームメイトと次のプレーについて話すとき | <input type="checkbox"/> 練習中にコーチと話するとき（例：セットプレーで何をするかディスカッション） |
| <input type="checkbox"/> 練習中にコーチの話を聞くととき（例：セットプレーで何をすべきかの説明） | <input type="checkbox"/> 試合中にレフリーの話を聞くととき |
| <input type="checkbox"/> ロッカールームでチームメイトとラグビーについて話すとき（例：試合についてのディスカッションなど） | <input type="checkbox"/> 練習中に選手と話するとき（例：セットプレーで何をするかディスカッション） |
| <input type="checkbox"/> 試合中にチームメイトの次のプレーについての話を聞くととき | <input type="checkbox"/> マネージャーのラグビーについての話を聞く（例：練習手順についてのディスカッションなど） |
| <input type="checkbox"/> マネージャーとラグビーについて話するとき（例：練習手順についてのディスカッションなど） | <input type="checkbox"/> その他
<input type="text"/> |
| <input type="checkbox"/> 練習中に選手たちの話を聞くととき（例：セットプレーで何をするか説明など） | <input type="checkbox"/> その他
<input type="text"/> |
| <input type="checkbox"/> 試合中にレフリーに話しかける | <input type="checkbox"/> その他 |

☐ ロッカールームでチームメイトがラグビーについて話しているのを聞く（例：試合についてのディスカッション）

影響を受けていない

次のセクションにはラグビー言語についての質問が含まれます。

以下の人々とコミュニケーションを取る際に、ラグビー言語の知識はどのくらい重要ですか？

	きわめて重要だ	とても重要だ	重要だ	少し重要だ	まったく重要ではない
チームメイト	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
キャプテン	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
コーチ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
レフリー	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
マネージャー	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他 <div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ラグビー言語が最も多く使用される状況順に順位をつけてください。（1が1位です）

- 試合中
- ロッカールーム内
- ハドル中
- 練習中
- 人とラグビーについて話しているとき
- テレビでラグビー解説を聞いているとき
- 新聞やインターネット上のラグビーに関する記事

ラグビー言語を効果的に学ぶことができると思う方法を次の選択肢から選んでください。（複数選択可）

テレビのラグビー解説はラグビー言語を学ぶ上で効果的だと思いますか？

どのように日本のラグビー言語は英語のラグビー言語と異なるのか選

ラグビー言語が日本語と英語でどう違うのか、いくつかの例を挙げてください。

この調査、またラグビー言語の研究に関して何かご意見があればお聞かせください。

調査にご参加いただきありがとうございました。インタビューとナレーション課題参加することを望まれますか？もしそうであれば、以下に連絡先の入力をお願いします。インタビューとナレーション課題にご協力いただければ、1,000円分のAmazonギフトカードをお渡しします。

名前：

メールアドレス：

電話番号：

Appendix 7. Needs analysis online survey for foreign (Japanese) coaches in New Zealand

	言語 ひとつ以上選ぶことができます。	修得度
英語	<input type="radio"/>	<input type="text"/>
日本語	<input type="radio"/>	<input type="text"/>
トンガ語	<input type="radio"/>	<input type="text"/>
サモア語	<input type="radio"/>	<input type="text"/>
フィジー語	<input type="radio"/>	<input type="text"/>
フランス語	<input type="radio"/>	<input type="text"/>
アフリカーンス語	<input type="radio"/>	<input type="text"/>
ドイツ語	<input type="radio"/>	<input type="text"/>
その他 <input type="text"/>	<input type="radio"/>	<input type="text"/>

あなたの英語学習の頻度について選んでください。

☐ 毎日
 ☐ 週に4～6回
 ☐ 週に2～3回
 ☐ 週に1回
 ☐ 現在は学習していない

あなたがニュージーランドに滞在している目的を選んでください。

- ☐ ラグビーをフルタイムでコーチするため
☐ 仕事のため(ラグビー以外のもの)
☐ 勉強のため(ラグビー以外のもの)
☐ その他

次の国の中で、ラグビーをプレーしたことのある国といくつのシーズンでプレーしたかを選んでください。もしない場合は空欄のままにしてください。(複数選択可)

	～1 シーズン	1-2 シーズン	2～ シーズン
日本	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ニュージーランド	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
オーストラリア	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
南アフリカ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	～1 シーズン	1-2 シーズン	2～ シーズン
イギリス	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
アイルランド	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
サモア	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
トンガ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
フィジー	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="text"/>			
その他	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="text"/>			

次の国の中で、コーチをした経験のある国とそのシーズンの数を選んでください（複数選択可）

	～1 シーズン	1-2 シーズン	2～ シーズン
日本	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ニュージーランド	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
オーストラリア	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
南アフリカ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
イギリス	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
アイルランド	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
サモア	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
トンガ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
フィジー	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="text"/>			
その他	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="text"/>			

過去にプレーしていたポジションを選んでください（複数選択可）

- ☐ 1/3
- ☐ 2
- ☐ 4/5

- ☐ 6/7
- ☐ 8
- ☐ 9
- ☐ 10
- ☐ 11/14
- ☐ 12/13
- ☐ 15
- ☐ プレーしていない

以下のセクションにはラグビープレイ内のコミュニケーションと、英語ネイティブスピーカーの選手・コーチとのコミュニケーションに関する質問が含まれます。

以下の状況で人の話を聞いているとき、英語は何パーセント含まれていますか？

0 10 20 30 40 50 60 70 80 90 100

試合に向かう途中

ロッカールーム内

ハドル中

練習中

試合中

その他

その他

以下の状況で人に話すとき、英語は何パーセント含まれますか？

0 10 20 30 40 50 60 70 80 90 100

試合に向かう途中

ロッカールーム内

0 10 20 30 40 50 60 70 80 90 100

ハドル中

練習中

試合中

その他

その他

以下の状況の中で、言語障害を経験した、または発生しているを目撃したことはありますか？（複数回答可）

- | | |
|---|---|
| <input type="checkbox"/> 試合中にチームメイトと次のプレーについて話す | <input type="checkbox"/> 練習中にコーチと話す（例：セットプレーで何をすべきかなど） |
| <input type="checkbox"/> 練習中にコーチの話を聞く（例：セットプレーで何をすべきかの説明 | <input type="checkbox"/> 試合中にレフリーの話を聞く |
| <input type="checkbox"/> ロッカールームでチームメイトとラグビーについて話す（例：試合についてのディスカッションなど） | <input type="checkbox"/> 練習中に選手と話す（例：セットプレーで何をすべきかのディスカッション） |
| <input type="checkbox"/> 試合中にチームメイトの次のプレーについての話を聞く | <input type="checkbox"/> マネージャーのラグビーについての話を聞く（例：練習手順についてのディスカッションなど） |
| <input type="checkbox"/> マネージャーとラグビーについて話す（例：練習手順についてのディスカッションなど） | <input type="checkbox"/> その他
<div style="border: 1px solid black; height: 60px; width: 100%;"></div> |
| <input type="checkbox"/> 練習中に選手たちの話を聞く（例：セットプレーで何をすべきかの説明など） | <input type="checkbox"/> その他
<div style="border: 1px solid black; height: 60px; width: 100%;"></div> |
| <input type="checkbox"/> 試合中にレフリーと話す | <input type="checkbox"/> その他 |

☐ ロッカールームでチームメイトがラグビー 言語障害を体験、目撃したことはない
について話しているのを聞く（例：試合に ☐
ついてのディスカッション）

英語ネイティブスピーカーとの言語障害が一番起こりやすいと感じる状況に順位をつけてください。（1が1位です）

試合に向かう途中

ロッカールーム内

ハドル中

練習中

試合中

その他

英語ネイティブスピーカーとラグビーについてコミュニケーション（リスニング・スピーキング）をしている際に、言語障害が起こる要因になっていると感じる順に順位をつけてください。（1が1位です）

日常語彙

専門的語彙(スラング / ラグビー用語)

発音

文法

言葉以外のもの (ジェスチャー / 発話交替 / 文化的側面など)

流暢さ (スピード)

その他

あなたと英語ネイティブスピーカーの選手やコーチの間で言語障害が発生した際に、使用したことのある方法にチェックを入れてください。（複数選択可）

	チェックを入れてください 相手にさせること：	チェックを入れてください 自分がすること：	チェックを入れてください 両方：
文章を復唱する	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
もっとゆっくり話す	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
簡単な英語で話す	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
行動で表す（例：セットプレーを実行するなど）	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
他の選手やコーチに会話のアシスタントを頼む	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
「理解できない」と伝える	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ジェスチャーやボディーラングエージを使って理解できないことを伝える	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
相手の言語で話す	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
より多くのジェスチャーやボディーラングエージを使用する	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
通訳者にアシスタントを頼む	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他 <div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他 <div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Items

Back
Teach
Defense
Penalty
Concentrate
Fashion
Journal
Momentum
Border
Intercept
Sister
Tent
Jersey
Winger
Scrum
Agriculture
Offload
Ruck
Sick
Halfback
Sew
Negotiate
Lineout
Neighbor
Tighties
Garage
Breakdown
Virus

ラグビーワード

Letter

Loosies

あなたがラグビーと密接に関係していると思うフレーズをボックスにドラッグしてください。

Items

On the outside

What does that mean

You know what I mean

Bit of space

Works it away

You can see

Trying to figure out

Inside the twenty two

First half

Does not make sense

Knock on

Taken down

For those of you who

Thank you very much

Second half

It doesn't matter

Let's go boys

On the inside

If you look at

On the ground

Over the ball

It turns out that

See what I am saying

Advantage line

ラグビーフレーズ

- ☐ Bit of space
- ☐ Works it away to
- ☐ Inside the twenty two
- ☐ First half
- ☐ Second half
- ☐ Let's go boys
- ☐ On the Inside
- ☐ On the ground
- ☐ Over the ball
- ☐ Advantage line
- ☐ Ball in hand
- ☐ Snapped up
- ☐ Taken down
- ☐ Knock on
- ☐ その他

次のセクションには、ラグビー言語学習体験についての質問が含まれています。

あなたはどのようにしてラグビーをコーチする・ラグビーについて話すための言葉を学びましたか？（複数選択可）

- ☐ 試合でプレーした
- ☐ 試合をコーチした
- ☐ テレビでラグビーの試合を見た
- ☐ ラグビーについて人と話した
- ☐ ラグビーについての記事を新聞やインターネットで読んだ
- ☐ ラグビーマガジンを読んだ
- ☐ 選手のための勉強会で勉強した

Take a look at

Ball in hand

Nothing to do with

Know what I mean

Snapped up

What I am talking about

すべてのラグビー選手、コーチが知っておくべきだと思う英語のラグビーワードを選んでください。（複数選択可）

- ☐ Back
- ☐ Defense
- ☐ Penalty
- ☐ Momentum
- ☐ Intercept
- ☐ Jersey
- ☐ Winger
- ☐ Scrum
- ☐ Offload
- ☐ Ruck
- ☐ Halfback
- ☐ Lineout
- ☐ Tighties
- ☐ Breakdown
- ☐ Loosies
- ☐ その他

すべてのラグビー選手、コーチが知っておくべきだと思う英語のラグビーフレーズを選んでください。（複数選択可）

- ☐ On the outside

☐ その他

☐ その他

ニュージーランドでコーチするためにどのような準備をしましたか？（複数選択可）

☐ テレビでラグビーの試合を見た（英語の解説付きで）

☐ 人と、海外でのラグビープレー・コーチに関しての話を英語でした

☐ ラグビーについての英語の記事を新聞やインターネットで読んだ

☐ 英語のラグビーマガジンを読んだ

☐ 英語のレッスンを受けた

☐ その他

☐ 何も準備しなかった

現在、英語のラグビー言語を勉強している頻度を選択してください：

毎日

☐

週に4-6回

☐

週に2-3回

☐

週に1回

☐

現在は勉強して
ない

☐

現在の英語ラグビー言語の勉強方法を選んでください（複数回答可）

☐ テレビでラグビーの解説を英語で聞く

☐ 英語で人とラグビーについて話す

- ☐ 英語でラグビーの記事を新聞やインターネットで読む
- ☐ 英語でラグビーマガジンを読む
- ☐ 選手のための勉強会で勉強する
- ☐ その他

言語障害について、次の状況の中でラグビー言語の欠如によって影響を受けたものはどれですか？（複数選択可）

- | | |
|--|--|
| <input type="checkbox"/> 試合中にチームメイトと次のプレーについて話すとき | <input type="checkbox"/> 練習中にコーチと話するとき（例：セットプレーで何をするかディスカッション） |
| <input type="checkbox"/> 練習中にコーチの話を聞くとき（例：セットプレーで何をすべきかの説明） | <input type="checkbox"/> 試合中にレフリーの話を聞くとき |
| <input type="checkbox"/> ロッカーームでチームメイトとラグビーについて話すとき（例：試合についてのディスカッションなど） | <input type="checkbox"/> 練習中に選手と話するとき（例：セットプレーで何をするかディスカッション） |

- | | |
|--|--|
| <input type="checkbox"/> 試合中にチームメイトの次のプレーについての話を聞くとき | <input type="checkbox"/> マネージャーのラグビーについての話を聞く（例：練習手順についてのディスカッションなど） |
|--|--|

- | | |
|---|------------------------------|
| <input type="checkbox"/> マネージャーとラグビーについて話すとき（例：練習手順についてのディスカッションなど） | <input type="checkbox"/> その他 |
|---|------------------------------|
-

- | | |
|--|------------------------------|
| <input type="checkbox"/> 練習中に選手たちの話を聞くとき（例：セットプレーで何をするか説明など） | <input type="checkbox"/> その他 |
|--|------------------------------|
-

- | | |
|---|------------------------------|
| <input type="checkbox"/> 試合中にレフリーに話しかける | <input type="checkbox"/> その他 |
|---|------------------------------|
-

ロッカールームでチームメイトがラグビー 影響を受けていない
☐ について話しているのを聞く（例：試合に☐
 ついてのディスカッション

次のセクションにはラグビー言語についての質問が含まれます。

以下の人々とコミュニケーションを取る際に、ラグビー言語の知識はどのくらい重要ですか？

	さわめて重 要だ	とても重要 だ	重要だ	少し重要だ	まったく重 要ではない
チームメイト	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
キャプテン	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
コーチ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
レフリー	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
マネージャー	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他 <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ラグビー言語が最も多く使用される状況順に順位をつけてください。（1が1位です）

試合中

ロッカールーム内

ハドル中

練習中

人とラグビーについて話しているとき

テレビでラグビー解説を聞いているとき

新聞やインターネット上のラグビーに関する記事

ラグビーマガジン

その他

ラグビー言語を効果的に学ぶことができると思う方法を次の選択肢から選んでください。（複数選択可）

- ☐ 試合に出ること
- ☐ テレビのラグビー解説を聞くこと
- ☐ 人とラグビーについて話すこと
- ☐ ラグビーの記事を新聞やインターネットで読むこと
- ☐ ラグビーマガジンを読むこと
- ☐ 選手のための勉強会で勉強すること
- ☐ その他
- ☐ その他

テレビのラグビー解説はラグビー言語を学ぶ上で効果的だと思いますか？

- ☐ はい
- ☐ いいえ

どのように日本のラグビー言語は英語のラグビー言語と異なるのか選択してください。（複数選択可）

- ☐ ポジションの名前 (例) lock / fullback
- ☐ セットプレイ (例) loop / switch
- ☐ 単語の発音 (例) Scrum
- ☐ フレーズ (例) dot it down
- ☐ その他
- ☐ その他
- ☐ 違いはない
- ☐ わからない

ラグビー言語が日本語と英語でどう違うのか、いくつかの例を挙げてください。

この調査、またラグビー言語の研究に関して何かご意見があればお聞かせください。

調査にご参加いただきありがとうございました。インタビューとナレーション課題参加することを望まれますか？もし
そうであれば、以下に連絡先の入力をお願いします。インタビューとナレーション課題にご協力いただければ、1,000
円分のAmazonギフトカードをお渡しします。

名前：

メールアドレス：

電話番号：

Appendix 8. Needs analysis online survey for foreign (Japanese) players in New Zealand

	言語 ひとつ以上選ぶことができます。	修得度
トンガ語	<input type="radio"/>	<input type="text"/>
サモア語	<input type="radio"/>	<input type="text"/>
フィジー語	<input type="radio"/>	<input type="text"/>
フランス語	<input type="radio"/>	<input type="text"/>
アフリカーンス語	<input type="radio"/>	<input type="text"/>
ドイツ語	<input type="radio"/>	<input type="text"/>
その他 <input type="text"/>	<input type="radio"/>	<input type="text"/>

あなたの英語学習の頻度について選んでください。

毎日	週に 4～6 回	週に 2～3 回	週に 1 回	現在は学習していない
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

あなたがニュージーランドに滞在している目的を選んでください。

- ☐ ラグビーをフルタイムでプレーするため
☐ 仕事のため (ラグビー以外のもの)
☐ 勉強のため (ラグビー以外のもの)
☐ その他

次の国の中で、ラグビーをプレーしていたことのある国といくつかのシーズンでプレーしたかを選んでください。

	～1 シーズン	1-2 シーズン	2～ シーズン
日本	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ニュージーランド	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
オーストラリア	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
南アフリカ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
イギリス	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
アイルランド	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	～1シーズン	1-2シーズン	2～シーズン
サモア	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
トンガ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
フィジー	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他 <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他 <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

あなたが今までプレーしたことのあるポジション・現在プレーしているポジションを選んでください。
(複数選択可)

- ☐ 1/3
☐ 2
☐ 4/5
☐ 6/7
☐ 8
☐ 9
☐ 10
☐ 11/14
☐ 12/13
☐ 15

以下のセクションにはラグビープレイ内のコミュニケーションと、英語ネイティブスピーカーの選手・コーチとのコミュニケーションに関する質問が含まれます。

以下の状況で人の話を聞いているとき、英語は何パーセント含まれていますか？

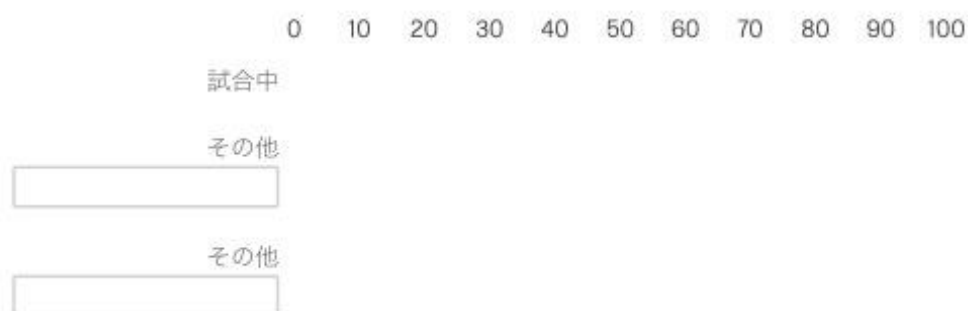
0 10 20 30 40 50 60 70 80 90 100

試合に向かう途中

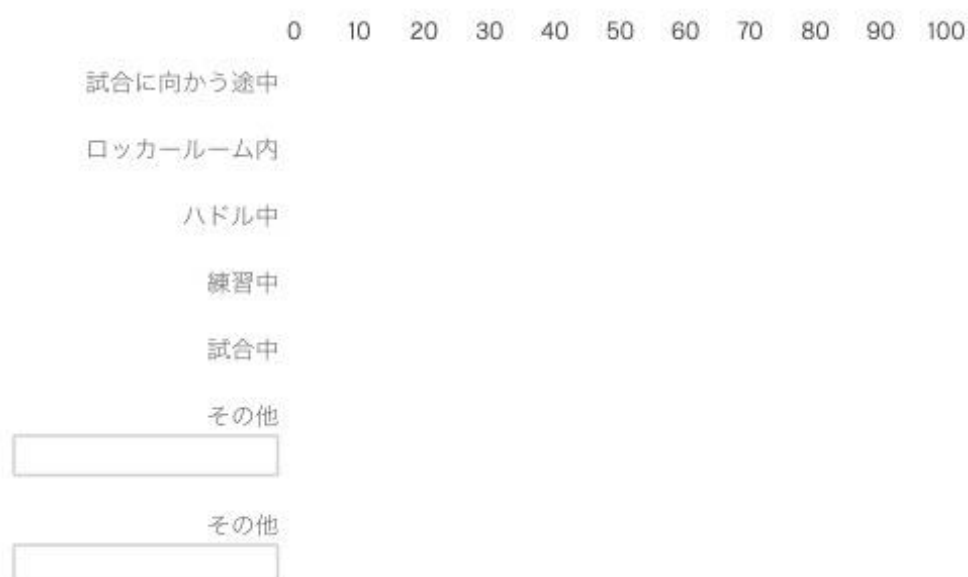
ロッカールーム内

ハドル中

練習中



以下の状況で人に話すとき、英語は何パーセント含まれますか？



以下の状況の中で、言語障害を経験した、または発生しているを目撃したことはありますか？（複数回答可）

- | | |
|---|--|
| <input type="checkbox"/> 試合中にチームメイトと次のプレーについて話す | <input type="checkbox"/> 練習中にコーチと話す（例：セットプレーで何をすべきかなど） |
| <input type="checkbox"/> 練習中にコーチの話を聞く（例：セットプレーで何をすべきかの説明 | <input type="checkbox"/> 試合中にレフリーの話を聞く |
| <input type="checkbox"/> ロッカールームでチームメイトとラグビーについて話す（例：試合についてのディスカッションなど） | <input type="checkbox"/> 練習中に選手と話す（例：セットプレーで何をすべきかのディスカッション） |
| <input type="checkbox"/> 試合中にチームメイトの次のプレーについて話す | <input type="checkbox"/> マネージャーのラグビーについての話を聞く |

ての話を聞く	く（例：練習手順についてのディスカッションなど）
<input type="checkbox"/> マネージャーとラグビーについて話す （例：練習手順についてのディスカッションなど）	<input type="checkbox"/> その他 <div style="border: 1px solid black; height: 60px; width: 100%; margin-top: 5px;"></div>
<input type="checkbox"/> 練習中に選手たちの話を聞く（例：セットプレーで何をするかの説明など）	<input type="checkbox"/> その他 <div style="border: 1px solid black; height: 60px; width: 100%; margin-top: 5px;"></div>
<input type="checkbox"/> 試合中にレフリーと話す	<input type="checkbox"/> その他 <div style="border: 1px solid black; height: 60px; width: 100%; margin-top: 5px;"></div>
<input type="checkbox"/> ロッカールームでチームメイトがラグビーについて話しているのを聞く（例：試合についてのディスカッション）	<input type="checkbox"/> 言語障害を体験、目撃したことはない

英語ネイティブスピーカーとの言語障害が一番起こりやすいと感じる状況に順位をつけてください。（1が1位です）

試合に向かう途中

ロッカールーム内

ハドル中

練習中

試合中

その他

英語ネイティブスピーカーとラグビーについてコミュニケーション（リスニング・スピーキング）をしている際に、言語障害が起こる要因になっていると感じる順に順位をつけてください。（1が1位です）

日常語彙

専門的語彙(スラング / ラグビー用語)

発音

文法

言葉以外のもの (ジェスチャー / 発話交替 / 文化的側面など)

流暢さ (スピード)

その他

あなたと英語ネイティブスピーカーの選手やコーチの間で言語障害が発生した際に、使用したことのある方法にチェックを入れてください。（複数選択可）

	チェックを入れてください 相手にさせること：	チェックを入れてください 自分がすること：	チェックを入れてください 両方：
文章を復唱する	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
もっとゆっくり話す	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
簡単な英語で話す	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
行動で表す（例：セットプレーを実行するなど）	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
他の選手やコーチに会話のアシスタントを頼む	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
「理解できない」と伝える	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ジェスチャーやボディーラングエージを使って理解できないことを伝える	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
相手の言語で話す	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	チェックを入れてください 相手にさせる こと：	チェックを入れてください 自分がすること：	チェックを入れてください 両方：
より多くのジェスチャーやボディーラングエージを使用する	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
通訳者にアシスタントを頼む	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他 <div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他 <div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他 <div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

選手が最高の状態でラグビーをプレーする能力は、言語の問題によって影響を受ける。

強く思う ☐
 そう思う ☐
 やや思う ☐
 どちらともい ☐
 やや思う ☐
 そう思わ ☐
 そう思わない ☐
 まったくそう ☐
 思わない ☐

将来ニュージーランドに来る日本語を話すラグビー選手に、コミュニケーションや言語についてアドバイスできるとしたら、何と伝えますか？

次のセクションは、英語のラグビー用語の知識問題です。

あなたがラグビーに密接に関係していると思う言葉をボックスにドラッグしてください。

Items

Back

Teach

Defense

Penalty

Concentrate

Fashion

Journal

Momentum

Border

Intercept

Sister

Tent

Jersey

Winger

Scrum

Agriculture

Offload

Ruck

ラグビーワード

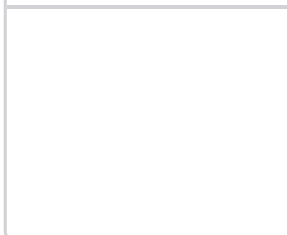
Sick
Halfback
Sew
Negotiate
Lineout
Neighbor
Tighties
Garage
Breakdown
Virus
Letter
Loosies

あなたがラグビーと密接に関係していると思うフレーズをボックスにドラッグしてください。

Items

On the outside
What does that mean
You know what I mean
Bit of space
Works it away
You can see
Trying to figure out
Inside the twenty two
First half
Does not make sense
Knock on
Taken down
For those of you who
Thank you very much

ラグビーフレーズ



Second half
It doesn't matter
Let's go boys
On the inside
If you look at
On the ground
Over the ball
It turns out that
See what I am saying
Advantage line
Take a look at
Ball in hand
Nothing to do with
Know what I mean
Snapped up
What I am talking about

すべてのラグビー選手、コーチが知っておくべきだと思う英語のラグビーワードを選んでください。（複数選択可）

- ☐ Back
- ☐ Defense
- ☐ Penalty
- ☐ Momentum
- ☐ Intercept
- ☐ Jersey
- ☐ Winger
- ☐ Scrum
- ☐ Offload
- ☐ Ruck
- ☐ Halfback
- ☐ Lineout

- ☐ Tighties
- ☐ Breakdown
- ☐ Loosies
- ☐ その他

すべてのラグビー選手、コーチが知っておくべきだと思う英語のラグビーフレーズを選んでください。
(複数選択可)

- ☐ On the outside
- ☐ Bit of space
- ☐ Works it away to
- ☐ Inside the twenty two
- ☐ First half
- ☐ Second half
- ☐ Let's go boys
- ☐ On the Inside
- ☐ On the ground
- ☐ Over the ball
- ☐ Advantage line
- ☐ Ball in hand
- ☐ Snapped up
- ☐ Taken down
- ☐ Knock on
- ☐ その他

次のセクションには、ラグビー言語学習体験についての質問が含まれています。

あなたはラグビーをプレーするため・ラグビーについて話すための言葉をどのようにして学びましたか？
(複数選択可)

- ☐ 試合でプレーした
- ☐ テレビでラグビーの試合を見た
- ☐ ラグビーについて人と話した
- ☐ ラグビーについての記事を新聞やインターネットで読んだ
- ☐ ラグビーマガジンを読んだ
- ☐ 選手のための勉強会で勉強した
- ☐ その他

- ☐ その他

ニュージーランドでプレーするためにどのような準備をしましたか？（複数選択可）

- ☐ テレビでラグビーの試合を見た（英語の解説付きで）
- ☐ 人とラグビープレー・コーチに関しての話をした
- ☐ ラグビーについての記事を新聞やインターネットで読んだ
- ☐ 英語でラグビーマガジンを読んだ
- ☐ 英会話のレッスンを受けた
- ☐ その他

- ☐ 何も準備しなかった

現在、英語のラグビー言語を勉強している頻度を選択してください：

毎日

☐

週に4-6回

☐

週に2-3回

☐

週に1回

☐

現在は勉強してい
ない

☐

現在の英語ラグビー言語の勉強方法を選んでください（複数回答可）

- ☐ テレビでラグビーの解説を英語で聞く
- ☐ 英語で人とラグビーについて話す
- ☐ 英語でラグビーの記事を新聞やインターネットで読む
- ☐ 英語でラグビーマガジンを読む
- ☐ 選手のための勉強会で勉強する
- ☐ その他

言語障害について、次の状況の中でラグビー言語の欠如によって影響を受けたものはどれですか？（複数選択可）

- | | |
|---|--|
| <input type="checkbox"/> 試合中にチームメイトと次のプレーについて話すとき | <input type="checkbox"/> 練習中にコーチと話するとき（例：セットプレーで何をするかディスカッション） |
| <input type="checkbox"/> 練習中にコーチの話を聞くととき（例：セットプレーで何をすべきかの説明） | <input type="checkbox"/> 試合中にレフリーの話を聞くととき |
| <input type="checkbox"/> ロッカーームでチームメイトとラグビーについて話すととき（例：試合についてのディスカッションなど） | <input type="checkbox"/> 練習中に選手と話すととき（例：セットプレーで何をするかディスカッション） |
| <input type="checkbox"/> 試合中にチームメイトの次のプレーについての話を聞くととき | <input type="checkbox"/> マネージャーのラグビーについての話を聞く（例：練習手順についてのディスカッションなど） |
| <input type="checkbox"/> マネージャーとラグビーについて話すととき（例：練習手順についてのディスカッションなど） | <input type="checkbox"/> その他 |
| <input type="checkbox"/> 練習中に選手たちの話を聞くととき（例：セ | <input type="checkbox"/> その他 |

ットプレーで何をするかの説明など)

試合中にレフリーに話しかける

その他

☐☐

☐ ロッカールームでチームメイトがラグビーについて話しているのを聞く（例：試合についてのディスカッション）
☐ 影響を受けていない

次のセクションにはラグビー言語についての質問が含まれます。

以下の人々とコミュニケーションを取る際に、ラグビー言語の知識はどのくらい重要ですか？

	きわめて重要だ	とても重要だ	重要だ	少し重要だ	まったく重要ではない
チームメイト	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
キャプテン	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
コーチ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
レフリー	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
マネージャー	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
その他 <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ラグビー言語が最も多く使用される状況順に順位をつけてください。（1が1位です）

試合中

ロッカールーム内

ハドル中

練習中

人とラグビーについて話しているとき

テレビでラグビー解説を聞いているとき

新聞やインターネット上のラグビーに関する記事

ラグビーマガジン

その他

ラグビー言語を効果的に学ぶことができると思う方法を次の選択肢から選んでください。（複数選択可）

- ☐ 試合に出ること
- ☐ テレビのラグビー解説を聞くこと
- ☐ 人とラグビーについて話すこと
- ☐ ラグビーの記事を新聞やインターネットで読むこと
- ☐ ラグビーマガジンを読むこと
- ☐ 選手のための勉強会で勉強すること
- ☐ その他
- ☐ その他

テレビのラグビー解説はラグビー言語を学ぶ上で効果的だと思いますか？

- ☐ はい
- ☐ いいえ

どのように日本のラグビー言語は英語のラグビー言語と異なるのか選択してください。（複数選択可）

- ☐ ポジションの名前 (例) lock / fullback
- ☐ セットプレイ (例) loop / switch
- ☐ 単語の発音 (例) Scrum
- ☐ フレーズ (例) dot it down
- ☐ その他

☐ その他

☐ 違いはない

☐ わからない

ラグビー言語が日本語と英語でどう違うのか、いくつかの例を挙げてください。

この調査、またラグビー言語の研究に関して何かご意見があればお聞かせください。

調査にご参加いただきありがとうございました。インタビューとナレーション課題参加することを望まれますか？もしそうであれば、以下に連絡先の入力をお願いします。インタビューとナレーション課題にご協力いただければ、1,000円分のAmazonギフトカードをお渡しします。

名前：

メールアドレス：

電話番号：

Appendix 9. Needs analysis online survey information sheet and consent form (in English and Japanese)

Introduction

My name is Stuart Benson and I am a doctoral student in the School of Linguistics and Applied Language Studies at Victoria University of Wellington. This research has been approved by the Victoria University of Wellington Human Ethics Committee [Reference number 24720].

My study is investigating the language needs and language use in rugby, specifically in Japan and New Zealand. The aim of the study is to understand what language is used in the rugby context by native and foreign rugby players and coaches. This research is confidential. The findings may be used in a journal article or a conference presentation at some later stage. The survey will take approximately 10-20 minutes to complete. By clicking on the button below to start the survey, you give consent for your participation.

If you have any questions, either now or in the future, please feel free to contact me: stuart.benson@vuw.ac.nz. or my supervisor Dr. Averil Coxhead: averil.coxhead@vuw.ac.nz.

If you have any concerns about the ethical conduct of the research you may contact the Victoria University HEC Convenor: Associate Professor Susan Corbett. Email susan.corbett@vuw.ac.nz or telephone +64-4-463 5480.

Thank you for your help with this project.

ヴィクトリア大学ウェリントン校の言語学&応用言語学研究科の博士課程後期に所属しています、スチュアート・ベンソンと申します。本研究は、ヴィクトリア大学ウェリントン校の倫理審査を受け、承認されております。（参照番号: 24720）

本研究の目的は、日本とニュージーランドのラグビーにおける言語ニーズと使用を調査し、英語ネイティブラグビー選手と外国人選手、コーチによる言語ニーズと使用について理解を深めることです。本研究は、匿名で実施されます調査結果は、ジャーナル記事または会議プレゼンテーションで使用することができます。

この調査アンケートの回答には約10-20分を要します。下のボタンをクリックすると、参加に同意することになります。

質問がある場合は、私に連絡してください: stuart.benson@vuw.ac.nz それとも指導教員アブリル・コックスヘッド: averil.coxhead@vuw.ac.nz

本研究の倫理規定について不審な点がある場合には、下記のヴィクトリア大学ウェリントン校倫理審査委員会招集担当: 准教授 Susan Corbettまでご連絡ください。

Appendix 10. Ethics approval



Phone 0-4-463 5205
Email stephen.marshall@vuw.ac.nz

MEMORANDUM

TO	Stuart Benson
COPY TO	Dr Averil Coxhead
FROM	Dr Stephen Marshall, Acting Convener, Human Ethics Committee
DATE	8 October 2017
PAGES	1
SUBJECT	Ethics Approval: 24720 Dot the pill down: Investigating the linguistic needs of foreign rugby players and lexicon of spoken rugby discourse

Thank you for your application for ethical approval, which has now been considered by the Standing Committee of the Human Ethics Committee.

Your application has been approved from the above date and this approval continues until 1 March 2020. If your data collection is not completed by this date you should apply to the Human Ethics Committee for an extension to this approval.

Best wishes with the research.

Stephen Marshall,
Acting Convener, Victoria University Human Ethics Committee

Appendix 11. Interview guideline sample for foreign speaker in Japan

Before the interview

Confirm with the interviewee that he/she has read the information sheet and understood:

- The purpose of the interview
- The length of the interview
- It is confidential
- It will be audio recorded
- The participant can ask for clarification at any time and can decline to answer a question
- There will be an opportunity in the interview to ask the interviewer questions

ALSO - check the consent form has been signed.

Section 1 – General information:

- Time in spent in Japan and time spent playing in Japan “So you have lived in Japan for _____” and have played/coached rugby here for _____
- “So far, what level rugby have you played/coached” “have you noticed a need for Japanese in the different levels”
- Information regarding where they have played/coached rugby outside of Japan and communication in that language.

“You stated, you are currently studying Japanese. Do you think there is a deep connection between general Japanese and Japanese rugby language?”

Section 2 - Communication in rugby:

- “So you ticked that you have had language difficulties with _____” “Could you elaborate on a time when you experienced a difficulty communicating”. “what happened?”.
- “Are there any specific aspects of language that affects communication with non-native speaking rugby players/coaches? E.g. vocabulary, pronunciation, etc.
- “If you could give advice on language to future native speaking rugby players/coaches coming to Japan, what would it be?”
- “For the question “a _____ ability to play rugby at their level is affected by language difficulties” you ticked _____. Could you elaborate on that please. Why do you think so?”

Section 3 – Receptive knowledge task:

- “From the list in the survey, what words do you think are specific to rugby that only players/coaches would know?” (provide the list of words from the survey).
- “What situations would you use or encounter these words?”.
- “Here are some words and phrases provided by respondents, what are your thoughts on them? Do you know these words?” (provide a list of words).

Section 4 – Rugby language:

- “You stated that you are currently studying Japanese rugby language, could you elaborate on how you are studying”
- “So you ticked that you have had language difficulties with _____” “Could you elaborate on a time when you experienced a difficulty communicating because of rugby language”. “what happened?”.
- “Are there any aspects of rugby language that affects communication with non-native speaking rugby players/coaches?”

Section 5 – Acquisition of rugby language:

- “In the survey, you stated that you believe knowledge of rugby language is important when communicating with _____. Why do you think so? Could you elaborate on this, please”.
- “In the survey, you stated you believe _____ are effective ways to learn rugby language. What do you believe would be the best method to teach or learn rugby language?” “why?”
- “what is your view of explicitly learning rugby language? for example, in the classroom”
- “What do you believe would be the best method to teach or learn rugby language?” “why?”
- “You stated that Japanese and English rugby language is different, such as _____. Could you elaborate on such differences?”

Appendix 12. Needs analysis interview information sheet



Investigating the language needs and language use in rugby

Information sheet for participants – Interview

Thank you for your continued interest in this project. Please read this information before deciding whether or not to take part. If you decide to participate, thank you. If you decide not to take part, thank you for considering my request.

If you decide to participate, please contact me at: stuart.benson@vuw.ac.nz to arrange a time and place.

Who am I?

My name is Stuart Benson and I am a doctoral student in the School of Linguistics and Applied Language Studies at Victoria University of Wellington. This research project is work towards my dissertation.

What is the aim of the project?

This project is investigating the language needs and language use in rugby, specifically in Japan and New Zealand. The aim of the project is to understand what language is used in the rugby context by native and foreign rugby players, coaches, and TV commentators. Additionally, the project aims to create a vocabulary word list of the most frequent words and formulaic sequences used in rugby.

This research has been approved by the Victoria University of Wellington Human Ethics Committee [Reference number 24720].

How can you help?

Firstly, I would like to thank you for taking the time to complete the survey and providing your contact details for the next stage of the project. If you agree to take part, I would like you to complete an interview. The interview will take 20 minutes. I will ask you questions about language in rugby that elaborate on the responses received from the survey. The interviews will take place between 10/01/2018 – 31/05/2018 at either rugby club rooms, a café, or by phone. You can choose what place, time, and day is suitable for you.

You can choose to not answer any question or stop at any time, without giving a reason. You can withdraw from the study by contacting me at any time before 1st July 2018. If you withdraw, the information you provided will be destroyed or returned to you. For your help in the interviews and narration task, you will be given a gift card.

What will happen to the information you give?

This research is confidential. This means that my supervisors and I will know who you are but your identity will not be revealed in any reports, presentations, or public documentation. However, you should be aware that in small projects your identity might be obvious to others in your community. The audio recordings of your interview will be kept on

a password protected device. If video is used in presentations, your identity will not be revealed and any distinguishing features, such as your face will be blurred.

Only my supervisors and I will read the notes or transcript of the interview. The transcripts, summaries and any recordings will be kept securely and destroyed 5 years after the research ends.

What will the project produce?

The information from my research will be used in my PhD dissertation and academic publications and conferences.

If you accept this invitation, what are your rights as a research participant?

You do not have to accept this invitation, if you don't want to. If you do decide to participate, you have the right to:

- Choose not to answer any question;
- Ask for the audio recorder to be turned off at any time during the interview
- Withdraw from the study before 1st July 2018;
- Ask any questions about the study at any time;
- Receive a copy of your interview transcript;
- Be able to read any reports of this research by emailing the researcher to request a copy.

If you have any questions or problems, who can you contact?

If you have any questions, either now or in the future, please feel free to contact either:

Student:

Name: Stuart Benson

University email address:

Stuart.benson@vuw.ac.nz

Supervisor:

Name: Averil Coxhead

Role: Primary supervisor

School: Linguistics and Applied Language
Studies

Averil.coxhead@vuw.ac.nz

If you have any concerns about the ethical conduct of the research you may contact the Victoria University HEC Convenor: Associate Professor Susan Corbett. Email susan.corbett@vuw.ac.nz or telephone +64 4 463 5480.

Appendix 13. Needs analysis interview consent form



Investigating the language needs and language use in rugby Consent to interview

This consent form will be held for 5 years

Researcher: Stuart Benson, School of Linguistics and Applied Language Studies, Victoria
University of Wellington

- I have read the Information Sheet and the project has been explained to me. My questions have been answered to my satisfaction. I understand that I can ask further questions at any time.
- I agree to take part in an audio recorded interview.

I understand that:

- I may withdraw from this study at any point before 1st July 2018, and any information that I have provided will be returned to me or destroyed.
- The information I have provided will be destroyed 5 years after the research is finished.
- Any information I provide will be kept confidential to the researcher and the supervisor.
- I understand that the results will be used for a PhD dissertation and academic publications and presented to conferences.
- My name will not be used in reports, nor will any information that would identify me.
- I would like a copy of the transcript of my interview: Yes ☐ No ☐
- I would like to receive a copy of the final report and have added my email address below. Yes ☐ No ☐

Signature of participant: _____

Name of participant: _____

Date: _____

Contact details: _____

Appendix 14. Needs analysis interview information sheet (Japanese translation)



ラグビーにおける言語ニーズと使用に関する調査

インタビューとナレーション課題について

引き続き、本計画に興味をお持ち下さり、ありがとうございます。研究の趣旨をご理解のうえ、ご協力くださいますようお願い申し上げます。ご協力に賛同くださった方へあらかじめ感謝申し上げます。今回は協力をしないと決めた方へ、検討くださり、ありがとうございます。

ご協力に賛同くださる場合は、stuart.benson@vuw.ac.nz までご連絡ください。

本研究の実施者について

ヴィクトリア大学ウェリントン校の言語学&応用言語学研究科の博士課程後期に所属しています、スチュアート・ベンソンと申します。本調査は博士論文の執筆に向けたものです。

本計画の目的について

本計画の目的は、日本とニュージーランドのラグビーにおける言語ニーズと使用を調査し、英語ネイティブラグビー選手と外国人選手、コーチ、テレビコメンテーターによる言語ニーズと使用について理解を深めることで、ラグビー分野で最もよく使用される単語や慣用表現のリストを作成することです。本研究は、ヴィクトリア大学ウェリントン校の倫理審査を受け、承認されております。（参照番号: 24720）

協力方法について

初めに、本調査へご協力とこの後の段階で個人情報の提供くださいます。ありがとうございます。調査へご協力くださる場合には、次の2段階の調査を実施させていただきます。初めにあらかじめ質問票でお伺いしたラグビーにおける言語の内容に基づき15分ほどのインタビューを実施します。その後、40分ほどのナレーション課題を行っていただきます。ナレーション課題では、まず初めに最近プレーしたまたは観戦したラグビー試合について話します。その後、4種類のラグビーの試合の動画を2分ずつ観てナレーションをしていただきます。全体の所要時間はインタビューと実況ナレーション課題を合わせて55分ほどです。ナレーションは英語で行っていただきます。インタビューとナレーションの様子の音声と動画を撮影し、その時に発生したさまざまな心境の変化等をのちに記載します。インタビューは、ラグビークラブルームかカフェかSKYPEで10/01/2018～20/04/2018の間に開催されます。あなたは何处でと何時があなたにふさわしいかを選択できます。本計画

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本研究への問い合わせ先について

今後、本研究および調査について質問がある場合には、お気軽に下記へお問い合わせください。

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倫理審査委員会について

本研究の倫理規定について不審な点がある場合には、下記のヴィクトリア大学ウェリントン校倫理審査委員会招集担当：准教授 Susan Corbett までご連絡ください。

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Appendix 15. Needs analysis interview consent form (Japanese translation)



ラグビーにおける言語ニーズと使用に関する調査

インタビューとナレーション課題への参加同意書

本同意書は5年間保管されます。

本研究実施者：ヴィクトリア大学ウェリントン校の言語学&応用言語学研究科の博士課程所属 スチュアート・ベンソン

- 上記の「インタビューとナレーション調査について」を読み、その内容を十分理解した上で、今後の発生する質問に関してもいつでも聞くことができることを承知しました。
- インタビューとナレーション課題の参加と録音および録画に同意しました。

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署名 _____

氏名 _____

日付 _____
連絡先（メールアドレス） _____

Appendix 16. Sample of interview data from foreign speaking coach in Japan

Interviewer: How long have you lived in Japan for now?

Participant: So, I did eight months.

Interviewer: So, you solely coached for eight months?

Participant: Oh, we had short breaks through it, we were able to the whole country get a little holiday in which was nice we went to places like Nagoya and Kobe.

Interviewer: So that was one season?

Participant: Yep, one season.

Interviewer: And you only coached, that was your first coaching position in Japan?

Participant: Yep

Interviewer: Ok and you have coached in XX. I saw you coached in the XX?

Participant: Yeah, I did a season in the XX as well I did division one in XX.

Interviewer: When you there, did you, I know they speak English over there, did you ever have a problem with communicating with the players at all?

Participant: Some of the terminology yeah, and I struggled with their I struggled with the American style of relating to each other on the field like they are pretty openly critical of each other and they will yell criticisms at each other and probably for a more conservative XX it feels anti-team so I struggled with that a little bit.

Interviewer: Was that like players to players or coaches and players?

Participant: Players to players.

Interviewer: Interesting.

Participant: Chew each other out.

Interviewer: I bet that did not happen in Japan really?

Participant: No.

Interviewer: And you said you have been studying Japanese when you were over there (in Japan) like two or three times a week?

Participant: So, I was in classes so XX XX put me in classes so I did a semester and I was doing podcasts etc. as much as I could to supplement that plus I had a translator who you

more almost daily I would ask questions how do you say this.

Interviewer: So the translator was with you basically all the time?

Participant: Yeah, actually it varied so if I was leading a session on the rugby field then he would make sure he was available but there were times where I was not running all the teams I might have just had a small group like say the forwards and I just struggled through without him.

Interviewer: So, when you had it like that you were focusing on did you struggle through or just you would ask the foreign players to kind of help you as well?

Participant: Actually, because often the two because we had a kiwi and we had a Tongan and obviously they can understand me but because they were younger it was really hard to get them to speak up because..

Interviewer: Hierarchical?

Participant: Hierarchical. So, I had more success once I identified the Japanese players who actually understood English and then found ways to communicate with them and they would relay what I was saying but it was unlikely they would talk back to me in English but no, we got by.

Participant: By mime.

Interviewer: Gestures yeah, pointing.

Interviewer: And you played in XX for years and years and you played in XX ok

Interviewer: So Q275 so it says which of the following difficulties so you have got quite a few difficulties listening to speaking to team mates. So, there was a lot of problems that you had with language problems. Can you expand on what kind difficulties? You said listen to coach or speaking to team mates speaking to managers listening to players.

Participant: Yeah, so the way it would play out for me is I would arrive pre-training to prepare a session or lock in a session and we would be in the coaches room and obviously they would be talking in Japanese amongst themselves and if I picked up on something that I thought I needed to know about I had to quickly interrupt and ask the translator or is this happening or he was directed to tell me something he would. But, obviously the difficulty was I missed a whole lot what was going on. I was not able to keep up. I tried to do things like, and they were fine with it as well as, I would drop my phone in the middle of the table and try and use google translate as much as I could, but it was a pretty poor tool when they are talking fast like that there is multiple people in the room. And then during training I might, say you know, the other coaches might say something to the players a lot of it I was trying to assume what they were trying to communicate, so they didn't have to repeat their points or counter anything they had said. And then you get to game day and obviously, there would be the same thing happening during warm up preparation and then a halftime.

Interviewer: Did you have time like, for example game day so like pre- and halftime and

after? Did you have time to talk to the players or not?

Participant: Yeah, I would always get a bit of a, so the areas I led, I ended up leading was forwards aerial and contact so during those bits of the warm up, I would be leading things and the translator would be coming to make sure he was available to pass on what I was saying and I would try and use questioning. But it was difficult. It was probably one of the main things you are much less able to use questioning than when you speak the same language.

Interviewer: So, the next question was so rank the following situations where language difficulties and you said number one is practice.

Participant: Yeah.

Interviewer: So, you think so practice is definitely the most common?

Participant: Yeah, partially because of the priority of practice. Like that was my main input. You know game day the sensei (teacher/coach) is clearly leading that. That is his show. We take much more of a back seat and as a coach, you know I would not have that much input on game day, anyway. You know, I would expect I would have done most of my coaching during the week. So yeah practice is definitely higher in terms of that was the main activity.

Interviewer: Ok and so travelling to the game did you travel in like a bus or?

Participant: Yeah so would tend to travel together by bus. I would be on the bus as well and I guess you are less able to pick up on some of the formal stuff that you pick up on if you were.

Interviewer: There is not really banter on between you and players?

Participant: Yeah that is right, a lot of that, you know when travelling to the game. On game day, a lot of that is your feel as to where they are at, you know. If they are already ready then don't push things at all keep it short etc. But if you feel like they are a bit off, in XX, it is easy for you to add a bit more energy to it.

Interviewer: It is difficult eh, because you don't know what they are doing, yeah. The next question is, what language aspects might cause difficulties, and you said everyday vocabulary and then specific vocabulary. So, you think vocabulary is probably the main two areas that..?

Participant: Yeah, definitely. And that was one of the frustrations with the classes, is they have got the kind of curriculum approach to learning English, I am sure it is the best way to learning hiragana and katakana, you know Kanji, and start working through that. I didn't actually need any of that. I needed to be able to say, 'you two stand over there'. 'you're passing to him, make sure you follow through'.

Interviewer: Rugby specific, well specific for your context.

Participant: Yeah, that is right.

Interviewer: Ok yeah, and you said before the gestures, you didn't really mind too much about that. What about the cultural aspects? Did you find that was a huge problem? Like rugby culture in Japan verses rugby culture in XX?

Participant: Yeah, some of it caught me by surprise and I probably made some miss steps as well. You know, cutting in over people where I should have stayed in the background. Um, I was surprised, and whether this was a university thing, or whether it happens at all levels, or it is part of Japanese culture, but like team captain there, almost had a status where he felt able to tell me, ok that is enough for we are not doing that anymore. It wouldn't happen in XX. They would say, do you know we have had enough.

Interviewer: Yeah, I noticed when I was playing rugby over there, as well. I had the same kind of thing, where the captain controlled everything, even over the coaches.

Participant: Yeah, like I would go, 'ok we are going to do some kick-off practice', and he would say 'no I want to do lineouts', then was walking off to do lineouts. I was like, 'hang on'.

Interviewer: Very interesting. So, questions 253 and 273. So, player's ability to play rugby and the coaches ability to play to rugby. So, for you as a coach, you definitely agree that, or strongly agree that language difficulties affect it (the ability to coach)?

Participant: Yeah, um so I put somewhat agree for player's ability to play rugby because you know, they have got other sources of learning as well. So, like yeah, I don't think the coach's communication is the be all and end all, but it certainly impacts it. You know, it certainly might make it harder for them and they might not get the level of understanding that they could have if you were able to explain yourself better. But coaches' ability to coach rugby is hugely impacted by language difficulties. So, I think I am a big believer in effective coaching. Being all about building understanding. And if your language is limited, you end up being much more directive. That's about you telling them stuff all the time then rather than, you know, gaining information. The back and forth, their ability to question you, finding the right analogies etc. That connect with them or imagery statements.

Interviewer: It is interesting because looking at the survey, all the coaches so far definitely agree, but a lot of them say the player's ability, they strongly disagree so you are one of the higher for somewhat agree. So, it is quite interesting.

Participant: I have probably got more confidence in players. Whereas a lot of coaches rate themselves, that they are the key difference, but I am not sure I believe that. I have seen good players succeed, despite shit coaches, so.

Interviewer: Do you think this, so you were at university level, do you think it would be the same in Top League (professional level in Japan), or would it be less? Do you think their skill supersedes their ability to speak the language?

Participant: I don't know if it would be the individual skill that would catch them out. I think I would feel strongly about it at Top League, but that would simply be because of the technical elements. Like if they didn't fully understand the tactics that you were trying to communicate as a coach, and how to adjust to them depending on what was in front of

them, then the players at that level are much more able to leverage that. So, get found out more. Whereas at university level, you can probably make some mistakes, but you can get away with it because the opposition is not good enough to pounce on that.

Interviewer: So, there must be more pressure on both players and coaches in the Top League to get the language right.

Interviewer: Yeah, the question you said giving advice to future English speaking players in Japan (reads answer to participant). So, it is interesting because we Emailed before about it and you said because you have an interpreter with you at all times. You are the only person that has had a translator, and I have talked to quite a few coaches.

Participant: Oh really? So, the Top League guys have them a lot, eh?

Interviewer: Yeah, they have them a lot, yeah. But for university, it is very rare that a foreign coach would have a translator. So that is why I was surprised. So, it is interesting how at your university, they looked after you.

Participant: Yeah, I think they are probably in a unique position that the physio had studied in the XX. He is Japanese and he is very strongly connected to the sensei (teacher/coach), so he is in the middle of everything. But yeah, he had spent some time in the XX. But yeah, that is interesting actually, and probably in some ways I got treated differently. So there was another coach who was with XX. who I had a good talk to about his experiences when he came on board and he came with no Japanese, and his living arrangements, so they (the university) put him in with the players, so he was all day, everyday with the players, so total immersion. And he said it took him probably two years before he could coach in Japanese. I don't know how he was dealing with the communication. They must have understood enough, how he was doing the communication with the coaching team.

Interviewer: I know XX. As you said, they live together. That is one of the things they do.

Participant: Oh, at our place they lived together as well, but interestingly, they put me in a separate, they put me in the international house, which is I mean, it is only 200 meters away, but like what I meant is I was only in contact with the players during training and games and other than that I was surrounded by international students a lot of whom were not speaking Japanese.

Interviewer: So, it was rare to get an opportunity to speak Japanese?

Participant: Oh, um no. Especially you would get it whenever you went out in public. You probably don't get the support around it. You have to be patient, you know players particularly, the formal side of it. So, the advantage I was thinking he (the coach above) had through that (living with the players), was total immersion. He had time with the players without the other coaches around, so they tend to be more relaxed with the gaijin (foreign) coach away from that environment. And he was able to ask them to explain things differently. Plus he was getting sport specific language off them as well.

Interviewer: Yeah exactly what you said. You said there should have been sport specific language learning classes. That is what my PhD is looking at, if there is a need to make sport

specific rugby context classes.

Participant: Yeah, I think so, eh. Even um, like I asked as much as I could, you know the classes I was put in, 'can we focus on conversation' and they said, 'yeah yeah'. Then they would start writing everything in hiragana on the board and I'm like 'oh look, I am really struggling to keep up because you are writing in Hiragana'. 'Oh, you need to learn your hiragana, in order to understand Japanese'.

Interviewer: It's very interesting.

Interviewer: So, the next question, we did the vocabulary task one, and yeah, you did very well. So, just looking at the single words these ones here (pointing at the paper), for your players in Japan, would they be able to understand these words if you said them?

Participant: Yes I was surprised, you know. And even things like being able to say like "shizumeru" (Japanese word for sink) versus sink (in English). So, I went to the trouble of learning "shizumeru" and then the Japanese coaches said, 'just say sink, they know what you mean'.

Interviewer: Even with the pronunciation difference, they could understand?

Participant: Yeah, so for the most part they understand as it applies to rugby specific words. If you are asking them something, or putting words in context in a conversation then..

Interviewer: So, individual words they can get it, but if you put it in a sentence?

Participant: (Nods to confirm)

Interviewer: Ok, Q257, what rugby words should every rugby player know, and you said most of them and then you added quite a few, so tackle, low, high, front, middle, back.

Participant: So, I was thinking about stuff at that point. Like I was right in the midst then. It was what was I regularly using and it was that sort of stuff, particularly during coaching.

Interviewer: So, let's go onto the next section, so on the next page. So. how did you learn language so learning English language (Q261). So, you learnt through playing rugby for years and coached for years so you learnt through that?

Participant: Yeah, just follow get familiar with it.

Interviewer: So which ones out the list, which ones do you think was the most beneficial to learning (rugby specific language)?

Participant: I think probably, I think talking with people about rugby. and I am not sure if it is in the list here, but, oh yeah, I put it there. Coach development courses, because we would go onto some more technical stuff (aspects of the sport).

Interviewer: It is interesting cause I am looking at, I have also done an analysis of the Laws of the Game (the official rugby rule book), and I have compared that to TV commentary, and another list of words. It is interesting the connection between a very technical book, such as laws of the game and general talking about rugby. There is quite a huge overlap, so it is

interesting. So, the laws of the game book was made for coaches and players.

Participant: Yeah and I am surprised. I am often surprised how little commentators even though they were experienced players actually know some of the more obscure rules. But when you are doing your coaching development, you have to do laws of the game study and it is at that point you realise, 'oh shit I thought I knew that, but I actually don't'. So, you learn a lot from the coaching side of things. Some of the things commentators say, I think that is not right.

Interviewer: Did you have to teach laws or rules to players in Japan or did you say you can get away with this or you can do that?

Participant: Yes, I would check their understanding of stuff (the rules). It was always interesting when I was encouraging them to stretch the laws like we do in XX. Like who really scrums straight, even though there is a law that says we have to (scrum straight). And there were a couple of times I had to explain to the other coaches or remind them, I guess, of opportunities to succeed tactically by using another law or stretching another law.

Interviewer: But they would understand most of the vocabulary and everything, they could understand it in English, or you would have to get the translator to help you?

Participant: Some of the stuff, like a lot of the discussion for me contact side would be the breakdown, they do not understand a lot of that (the language in that aspect).

Interviewer: So, the question after that, question Q264, how did you prepare for coaching in Japan? So, you talked to people about coaching abroad, read articles, and you talked about people living in Japan.

Participant: Yeah, so I was lucky actually, I had a lot of people give me pretty spot on advice about what to expect, so at least I set my expectations at the right level.

Interviewer: If you had the opportunity to, for example, go to a language classroom would you have gone?

Participant: I probably would have not thought it through enough and I might not be motivated the way I should have been after I had been there I was going, 'oh god I wish I had'.

Interviewer: And while you were over there (in Japan), you said you had language classes and you had Japanese language teaching videos podcasts?

Participant: And good old google translate, which would often lead me astray.

Interviewer: Did you watch a lot of Japanese rugby on TV?

Participant: Nah not really, cause I only, because I couldn't figure out how to get it, actually. Like that um J sports (cable sports channel in Japan), I couldn't figure out how to subscribe or what I ended up with a Japanese TV in my room. But I would watch, I would have the soaps on in the background, but I was only picking up 10% of what they were saying. I watched a lot of Sumo. I loved that.

Interviewer: Even for me, I have no idea what they are saying in Sumo. It is very specific language.

Interviewer: So, on the next page so Q265, how important is knowledge of rugby language when communicating with the following people. So, you have ticked teammates, captain, coaches, referee, managers.

Participant: So, this goes back to my theory about, it is certainly helpful for everyone if you can speak English, but there are other ways for them to get around it, and still perform, but if you are going to be effective as a coach, you have got to be able to affect your team. That is probably where I felt where I could have been able to contribute a lot more, if I had been able to speak the language.

Interviewer: So, other coaches I have talked to about this, they are saying the role of translator. A lot of places do not have translators. Instead, the role should be more on the managers. what is your opinion on the role of a manager being the translator, because they understand rugby and they should be able to help coaches.

Participant: Yeah, it is interesting. I think it is definitely helpful if you are going to have a translator supporting coaches. There needs to be somebody who understands rugby. There was a couple of times where we tried to use, so universities have a lot of female managers, like students, and the like, but they do not have the understanding, and some of that common terminology, they do not, they cannot translate, and they end up confusing people more. Yeah, I had an interesting conversation so one of my mates he was a translator for XX at XX. And so he was saying, cause XX has got another gaijin (foreigner) coach who is his assistant coach, he said they pretty much gave up on learning Japanese, and so XX ended up sitting in every conversation. So player reviews, coach planning meetings, everything, recruitment stuff, So from that point of view, definitely getting someone, they need somebody who understands rugby and is appropriate and confidential. I just, I don't really understand the role of the manager there enough, cause in XX, it is important to try and keep a degree of separation between the coach and manager. Coaches impact selection too much. Players, even with strong relationships, they often will not be completely open with the coach, and so a player might need support that a manager, who is a little more independent, can give them. And if that manager was translating or sitting in on anything as well, a player might not be so comfortable.

Participant: It worked really well for us, you know. The guy (the interpreter) was a physio, so he understood what we were trying to do physically with them, but he had a rugby background as well, so he was brilliant.

Interviewer: So, the question was: Rank the following situations where rugby language occurs the most, so in practice, coaching sessions, locker room, huddle, during the game, TV commentary, then magazines. So again, you said practice is very high,

Participant: Especially when you are doing 5 to 6 hour practices a day.

Interviewer: How many? you would practice every day?

Participant: 6 days, twice a day, 6 days a week.

Interviewer: What is your thought on that?

Participant: Crazy! and I came to understand that it was part of the culture. Like in one hand, I would go 'it is crazy that they are doing this many reps, we are injuring guys unnecessarily, they are not getting any better and now they are practicing a skill poorly because they are too tired to do in properly'. But in fact, if they don't work really hard, they can feel underprepared psychologically, so like they need to bested themselves, it is just part of their culture.

Interviewer: There are interviews with Eddie Jones and he has said they're (Japanese coaches) training rugby players to be like athletes or track and field athletes, they are not focusing on the rugby side of it. Specifically, they are just making them run around.

Participant: Oh, it was crazy. So, what we would do in our afternoon session, we would do one hour where XX and I would tend to run things. We would do contact and defence or something like that, and it would be a lot higher contact than I would with my XX trainings. If it wasn't, I would kind of get spoken to, 'hey that wasn't hard enough'. So, they are much more focused on high contact rather than skill. And then sensei (teacher/coach) would split into units. He would step in and do scrums and that would look like one hour of A team vs B team, crouch, bind, set, push and they would push them back 22 metres, which I have never seen done on a rugby field. Then, they would reset and go again, and they might do 90 scrums in an hour. We try and keep it under probably 30 in a week in XX, and they would be doing that every second day. And he (the coach) would get more frustrated, because the standards would slip as they would finish training and they (the players) would have to push tyres out to the 22 for 15 minutes, forwards only. The backs would stand around and talk about girls. And then the forwards would have to carry each other around the field for 15 minutes and finish with 10, 100 metre sprints, not that they are ever going to sprint 100 metres on a rugby field, and then sensei would tend to go, and we would step in and do some coaching that we wanted to do so.

Interviewer: But it was too late, because they were already tired.

Participant: Yeah, but they would hang in there, you know without question, they would just keep going, bloody hungry, and they are about to miss dinner at the hostel.

Interviewer: Or it is like 34 degrees or something like that.

Participant: Yeah yeah crazy eh. I'm going to miss it.

Interviewer: I don't miss that, being a player over there (in Japan) training in like 34 degree heat in the middle of summer for like three or four hours.

Participant: It is crazy, eh.

Interviewer: Drinking salt water as much as you could, eating salt, thinking, 'this isn't healthy'. My body was falling apart, literally was falling apart.

Interviewer: So yeah, on the last page, you said which of the following study methods do you think are effective for learning rugby language. So, playing, coaching, listening to TV commentary rugby, and your courses.

Participant: Oh, I probably should have ticked talking to people about rugby actually. So, that is pretty high on my list.

Interviewer: And you think rugby TV commentary is an effective way to learn rugby language?

Participant: Yeah, I mean you will pick up a lot of the terminology. Some of the discussion they have is not necessarily as accurate as it should be, but yeah, but it is engaging, it is entertaining, and you are getting in all three at the same time, and then definitely they are saying the right things, in terms of using the right vocabulary that rugby people would understand.

Interviewer: So, what is your view on explicitly learning rugby language, like in a rugby classroom. So, like you said, you think rugby classrooms would be a really useful tool for players and coaches if you are going to Japan or coming to XX, so you think it is a good idea?

Participant: Yes, and tailored discussions. And part of that would come up through almost taking the areas of the game as a discussion topic. So, like, ok, what are some of the options of what we are trying to achieve, and you would find in that discussion that you would cover off all of the language, and there would be cross-over language across areas of the game. In fact, I went through that, um there is a bunch here called XX they were doing a big PlayStation game so they did 'Stacey Jones Rugby League' and they did All Blacks Rugby Challenge, and so I consulted to them for a year on 'rugby 101' because they are not rugby guys. And that's what we did. So, just took each area of the game and talked through. I didn't like the game when it was made, because everyone still loves 'Jonah Lomu'.

Interviewer: Yes, it is interesting, because you have the commentators, Grant Nisbett, for example, he is the play by play commentator. He uses a lot more rugby terms than for example, Justin Marshall. He is just the guy that whenever there is a break.

Participant: They have certain roles eh. Pad out and explain. Have you been able to engage with those guys?

Interviewer: I am trying to. It would be great to talk to them. So actually I have made a corpus.

Participant: So Nisbo (Grant Nisbett) works over here (points in a direction) half the time eh. I used to work with him. That is kind of his day job, then the rugby stuff at night.

Interviewer: Yeah it would be great to talk to him and ask him why does he use certain language.

Participant: I probably have his phone number, mate. And if you mention my name he will go, 'oh yeah'.

Interviewer: Yeah, that would be great. Thank you.

Interviewer: So, one last question before we finish. You said English rugby language is different to Japanese rugby language, and you noted pronunciation and phrases are quite different for example, 'dot it down'. And all these (phrases and words) are very different. So

individual words, they (Japanese players) could understand, but phrases is where they struggled?

Participant: And you know, coaching imagery words are very important. So, like a classic metaphor I have always tried to find. So, one of the key words for scrummaging in XX and it has come from XX. So, everybody else has picked up on it is when you are trying to articulate the need for people to power through at one level, they talk about 'bullseye' and straight away a XX player or an English speaker would be able to articulate what that meant. And in fact, they would talk about like 'I don't want you aimed at double 20, because if you do, you are going straight down. Or I don't want you pointing up at double 1, because you are going to get pushed over backwards. I want you right at bullseye'. And then people ok. But, finding something, you know the translator and I talked about that a lot, actually because your words are real and I think we sealed on .

Participant: Oh, it's gone. Oh, hang on, it's in my list (goes to get the list).

Interviewer: So, you said there would be words like that in XX that every coach would kind of use.

Participant: And they would look for it, and it might only be words for within their team, but the English words that created imagery for players. Whereas if you use English words with English words it's going to be hard enough for them to understand, let alone the next level of imagery connected to it.

Participant: Yeah, we would use "masugu", you know like straight. But that is not the same it is that versus straight and same height stay level ah "manaka".

Interviewer: Still that kind of, you can't use the imagery.

Participant: And I would end up using "manaka" for lineouts as well.

Participant: Oh, here is my list. As I hit words I would, or phrases I think. I looked at this while I was filling out your stuff, so clear calls, moving fast, so, be explosive, that, communicate, communication, strong, left, lock out, would be straight, go forward, go back, left and right obviously, was big straight, same way, switch, back the other way, stuff like that. Some of these actually, I would look at google translate and then I would go and ask the translator, and he would go 'what?' or he would just say just say 'communication, they will understand you'.

Interviewer: It is interesting cause you are not the first coach in Japan that had a list of words. So, I think every coach I have talked in Japan would have a list of words like that and they would give it out to players, as well, so the players could understand. Like 'these are the words in Japanese, if I use them in English'. Sometimes you (the coach) can't remember the Japanese word, so if you use the word in English they (the players) can understand the same meaning.

Participant: That is a good idea, yeah. No, I never did that. I put it on myself to try and learn. 'scrum daisuki'.

Interviewer: Ok, all done, thank you very m

Appendix 17. Technical spoken rugby word list in order of semantic rating

Semantic rating scale 2 (Words occur in the rugby context but also have the same meaning in everyday usage)

1. ball	39. goal	77. power
2. kick -ing -s -ed	40. long	78. snapped
3. game -s	41. piece	79. angle
4. pass -es -ing	42. offload -s	80. jersey
5. line	43. high	81. nil
6. point -s	44. step	82. training
7. penalty -ies	45. match	83. whistle
8. player -s	46. middle	84. focus
9. tackle -s	47. score	85. low
10. playing -ed	48. job	86. progress
11. gone	49. speed	87. zone
12. defence	50. bonus	88. momentum
13. front	51. arm -s	89. shoulder
14. team -s	52. pace	90. width
15. field	53. referee	91. boot
16. behind	54. contact	92. decision
17. opportunity -ties	55. territory	93. distance
18. taken	56. outstanding	94. result
19. meter -s	57. held	95. caught
20. push -ed	58. lead -ing	96. dangerous
21. throw -s -n	59. grab - bed	97. doubt
22. move -s	60. took	98. easy
23. ground	61. top	99. moving
24. quick	62. patterns	100. rate
25. moment	63. gap	101. stand
26. short	64. halftime	102. standing
27. position	65. deep	103. support
28. across	66. defensive	104. keen
29. talk -ing	67. percent	105. replacement
30. attack	68. remaining	106. scores
31. pressure	69. scored	107. scoring
32. defender -s	70. beat	108. solid
33. fifteen	71. place	109. standard
34. win - won	72. defensively	110. pods

continued

35. charge -ing	73. positive	111. backwards
36. option -s	74. dominate	112. depth
37. offside	75. drop -s	113. fight
38. twelve	76. finish	114. final
115. missed	157. senior	
116. attacking	158. shove	
117. create	159. smash	
118. impressive	160. split	
119. replaced	161. intercept	
120. swings		
121. defending		
122. stats		
123. ahead		
124. club		
125. feed		
126. force		
127. lose		
128. pull		
129. battle		
130. bounce		
131. claimed		
132. individually		
133. injuries		
134. lengths		
135. opposition		
136. progression		
137. tough		
138. defend		
139. errors		
140. setup		
141. catch		
142. chances		
143. corners		
144. danger		
145. face		
146. fielded		
147. late		
148. mistakes		

149. showed		
150. shut		

continued

151. used		
152. captain		
153. directly		
154. excellent		
155. injured		
156. intensity		

Semantic rating scale 3 (words occur in rugby but with a different meaning to that of everyday usage)

162. out	202. mark	242. class
163. back	203. round	243. deck
164. work -ing	204. shot	244. drill
165. try -ies	205. prop	245. openside
166. play -s	206. flat	
167. half	207. drive	
168. hard	208. pick	
169. side	209. picked	
170. hit -s -ting	210. touch	
171. run -ning	211. holding	
172. forward	212. wing	
173. inside	213. winger	
174. hands	214. center	
175. set	215. dropped	
176. man	216. break	
177. number -s	217. cut	
178. outside	218. row	
179. advantage	219. build	
180. forwards	220. form	
181. hold	221. bench	
182. space	222. conversion	
183. phase -s	223. full	
184. backs	224. pack	
185. loose	225. posts	
186. rugby	226. room	
187. call	227. sides	
188. possession	228. breaks	
189. season	229. clear	

190. lost	230. hole	
191. wide	231. read	

continued

192. takes	232. turnover	
193. close	233. called	
194. halfback	234. fires	
195. clean	235. free	
196. knocked	236. pops	
197. knock	237. sweet	
198. tight	238. gate	
199. breakdown -s	239. ref	
200. fullback	240. calling	
201. feet	241. carried	

Semantic rating scale 4 (words are unique to rugby and are associated with rugby)

246. scrum -s
247. lineout -s
248. ruck -s
249. midfield
250. loosehead
251. loosies
252. tighties

Appendix 18. Technical written rugby word list in order of semantic rating

Semantic rating scale 2 (Words occur in the rugby context but also have the same meaning in everyday usage)

1. player -s	42. carrier	83. scoring
2. ball	43. foot	84. tunnel
3. kick -s -ed -ing	44. attacking	85. dash
4. line -s	45. drop	86. shoulders
5. team -s	46. signal -s -ling	87. blow -s
6. goal	47. charge -ing	88. points
7. Law -s	48. leave -s -ing	89. allowed
8. penalty	49. intentionally	90. level -s
9. referee -s	50. substitute -s -ed	91. toss
10. meter -s	51. moving	92. middle
11. sanction	52. bind -ing	93. suspended
12. throw -s -n -ing	53. replacement	94. jersey
13. offside	54. scored	95. held
14. opponent -s	55. union -s	96. joining
15. ground	56. action	97. lands
16. match	57. variations	98. stand
17. playing -ed	58. hand	99. unplayable
18. place	59. position	100. grip -ing
19. front	60. gain -s	101. receiver
20. award -s -ed	61. carrying	102. infringements
21. tackle -d	62. move -s	103. misconduct
22. kicker -s	63. directly	104. push
23. field	64. score	105. straight
24. game	65. hindmost	106. contact
25. opposing	66. officials	107. direction
26. taken	67. grounded -ing	108. result
27. arm -s	68. replaced	109. regulation
28. infringement	69. dangerous	110. obstruct
29. touched -es -ing	70. flag	111. crossed
30. area	71. whistle	112. join
31. foul	72. wear	113. shoulder
32. behind	73. opposition	114. trained
33. onside	74. delay	115. distance
34. end -s -ed	75. conversion	116. disallowed
35. start - s -ed re-	76. quick	117. across

36. judge - s	77. sent	118. jumping
37. defending	78. indicate -s	119. reach

continued

38. over	79. replacements	120. winner
39. injury -ed	80. penalised	121. lower
40. assistant	81. stoppage	122. period
41. formed -ing	82. matches	123. substitutions
124. doubt	167. physical	
125. gone	168. standard	
126. long	169. formation	
127. pass	170. padding	
128. pass -es -ing	171. squad	
129. stay		
130. yellow		
131. bound		
132. release		
133. remains		
134. results		
135. tackler		
136. uncontested		
137. cautioned		
138. catch		
139. fall		
140. longer		
141. rejoining		
142. captain		
143. respect		
144. scores		
145. gesture		
146. suspension		
147. interval		
148. grounds		
149. heads		
150. keep		
151. support		
152. win		
153. decision		
154. official		
155. options		
156. replace		
157. international		

158. ahead		
159. allows		

continued

160. control		
161. falling		
162. fifteen		
163. halves		
164. lifting		
165. placing		
166. thrower		

Semantic rating scale 3 (words occur in rugby but with a different meaning to that of everyday usage)

172. play -s	214. picks
173. touch	215. set
174. free	216. flanker
175. maul	217. close
176. half	218. stands
177. try	219. reserve
178. row -s	220. call
179. forward	221. retiring
180. mark	
181. out	
182. dead	
183. feet	
184. touchline	
185. side	
186. possession	
187. run -s -ning	
188. number	
189. offending	
190. rugby	
191. advantage	
192. knock	
193. center	
194. hands	
195. prop	
196. offence	
197. outside	
198. posts	

199. takes	
200. props	

continued

201. back	
202. hooker	
203. form	
204. retire	
205. post	
206. inside	
207. lost	
208. hold	
209. holding	
210. crossbar	
211. locks	
212. space	
213. dropped	

Semantic rating scale 4 (words are unique to rugby and are associated with rugby)

222. scrum -s
223. lineout
224. ruck
225. tighthead
226. loosehead

Appendix 19. Technical spoken MWU list in order of frequency and semantic rating of technical single item

Number	variable	ROOT STRUCTURE	Variable
1	<i>in</i>	the game	
2	<i>in</i>	this game	
3	<i>over</i>	the ball	
4	<i>off</i>	the ball	
5	<i>got</i>	the ball	
6	<i>onto</i>	the ball	
7	<i>past</i>	the ball	
8	<i>with</i>	the ball	
9		ball in hand	
10		ball back	
11		quick ball	
12		ball now	
13		foot ball	
14		go forward ball	
15		our ball	
16		ball is loose	
17		with ball	
18	<i>the</i>	kick off	
19	<i>with</i>	the kick	
20		good kick	
21		kick it	
22		to kick	
23		kick in	
24		little kick	
25		weighted kick	
26	<i>to</i>	the line	
27	<i>on</i>	the line	
28	<i>close to</i>	the line	
29	<i>the</i>	advantage line	
30	<i>over the</i>	advantage line	
31		back line	
32		defensive line	

33		line speed	
34		the sideline	

continued

35	<i>number</i>	meter line	
36	<i>the</i>	try line	
37		has gone	
38		have gone	
39		minutes gone	
40		in front	<i>of</i>
41		up front	
42		the front	
43		front row	
44		front foot	
45		front foot ball	
46		points to	<i>number</i>
47	<i>on</i>	the field	
48	<i>away</i>	down field	
49		in behind	<i>the scrum</i>
50		taken by	<i>(name of player)</i>
51		taken down	<i>by</i>
52		taken in	
53		nicely taken	
54	<i>on</i>	the ground	
55		to ground	
56		quick hands	
57		quick ball	
58		push ups	
59		push it	
60		to push	
61	<i>as</i>	a team	

62	<i>at</i>	the moment	
63		the moment	<i>anyway</i>

continued

64		bonus point	
65		short pass	
66	<i>name</i>	goes short	
67		move it	
68		to move	
69		set piece	
70	<i>down</i>	the middle	
71	<i>in</i>	the middle	
72		the middle	<i>of</i>
73		talk about	
74		talk to	<i>him</i>
75		to throw	
76		held up	
77		not held	
78	<i>over</i>	the top	
79	<i>over</i>	the top	<i>of</i>
80		on top	
81		to win	
82		no doubt	
83		work rate	
84	<i>into</i>	the arms	<i>of</i>
85		fielded by	<i>(name of player)</i>
86		on defence	

87		good defence	
88		in defence	

continued

89		the defence	
90		(name of team) defence	
91		their defence	
92		to attack	
93		pressure on	
94		the pressure	
95		under pressure	
96		the goal	
97		the match	
98		good option	
99		defensive line	
100	<i>number</i>	minutes remaining	<i>in the game</i>
101		snapped up	<i>by</i>
102		the replacement	
103		swings it	<i>away</i>
104		claimed by	<i>(name of player)</i>
105	<i>be</i>	a penalty	
106	<i>got</i>	a penalty	
107		the penalty	
108		another penalty	
109	<i>in</i>	the tackle	
110	<i>a</i>	good tackle	
111		tackle by	<i>(name of player)</i>
112		the gap	

113		bonus point	

continued

114		the referee	
115	<i>number</i>	to nil	
116		at halftime	
117	<i>go</i>	out there	
118	<i>get</i>	out there	
119	<i>to</i>	get out	<i>of</i>
120		out on	
121		out the back	
122		clean out	
123		out here	
124		out in	
125		out of	<i>there</i>
126		out of	<i>this</i>
127		out of	<i>it</i>
128		out wide	
129		right out	
130		coming out	
131		is out	
132		out from	
133	<i>on</i>	the back	
134	<i>out</i>	the back	
135	<i>at</i>	the back	
136		the back	<i>of</i>
137	<i>on</i>	the back	<i>of</i>
138	<i>out</i>	the back	<i>of</i>
139	<i>at</i>	the back	<i>of</i>
140		back to	
141		back in	
142		back on	<i>the inside</i>
143		come back	
144		back line	
145		get back	
146	<i>(name of player)</i>	is back	

147		back inside	
148	<i>to</i>	go back	

continued

149		back into	
150	<i>the</i>	ball back	
151		back there	
152		going back	
153		back by	
154		back up	
155		got back	
156		good work	
157		work hard	
158	<i>got</i>	to work	
159		the work	<i>of</i>
160		work on	
161		work rate	
162		hard work	
163	<i>in</i>	first half	
164	<i>in the</i>	first half	
165	<i>in the</i>	second half	
166		half way	
167		this half	
168		to play	
169		let's play	
170		play on	
171		work hard	
172		really hard	
173		hard work	
174		working hard	
175	<i>from</i>	the side	
176	<i>in from</i>	the side	
177		that side	
178		this side	
179	<i>on the</i>	far side	
180	<i>on the</i>	other side	
181		wing side	

182		go forward	<i>ball</i>

continued

183		lost forward	
184		inside the	<i>number</i>
185	<i>back on</i>	the inside	
186	<i>on</i>	the inside	
187		back inside	
188		inside pass	
189		hands it	<i>off</i>
190		hands it	<i>off to</i>
191		hands it	<i>on</i>
192		quick hands	
193		hands on	
194		hands up	
195		his hands	
196		the hands	
197		set piece	
198		set up	
199		a set	
200		to set	
201		the man	
202		man down	
203		to run	
204	<i>on</i>	the outside	
205		the forwards	
206	<i>a</i>	bit of space	
207	<i>in a</i>	bit of space	
208		some space	
209		to hold	
210		hold it	
211		hold onto	

212	<i>number</i>	tries to	<i>name</i>

continued

213		out wide	
214		go wide	
215		takes it	<i>in</i>
216		close to	<i>the line</i>
217		knocked on	<i>by</i>
218	<i>a</i>	knock on	
219		his feet	
220		pick up	
221		picked up	
222		have picked	
223		the full	
224	<i>under</i>	the posts	
225		both sides	
226	<i>over the</i>	advantage line	
227		an advantage	
228		no advantage	
229		ball is loose	
230		loose pass	
231		the season	
232		front row	
233	<i>through</i>	the gate	

234		the bench	

continued

235		at halfback	
236		the halfback	
237	<i>the</i>	try line	
238		to try	
239		the try	
240		a try	
241		try to	
242	<i>in</i>	behind the scrum	
243		a scrum	
244		good scrum	
245		first scrum	
246		scrum time	
247		the ruck	
248		a ruck	
249		at ruck	
250		the lineout	
251		a lineout	
252		in midfield	
253		the pass	
254		short pass	
255		loose pass	
256		pass away	
257		pass off	
258		inside pass	
259		the charge	
260		being replaced	
261		the bounce	
262		the captain	

263		the patterns	

continued

264		to dominate	
265		the club	
266		the ref	
267		sweet as	

Appendix 20. Technical written MWU list in order of frequency and semantic rating of technical single item

Number	Variable	Root STRUCTURE	Variable
1	<i>the</i>	meter line	
2	<i>on the</i>	meter line	
3	<i>kick on the (number)</i>	meter line	
4	<i>the (number)</i>	meter line	
5	<i>beyond the (number)</i>	meter line	
6	<i>center of the (number)</i>	meter line	
7	<i>the opponents (number)</i>	meter line	
8	<i>the imaginery (number)</i>	meter line	
9	<i>a (number)</i>	meter scrum	
10	<i>Under</i>	the 10 meter	<i>law</i>
11	<i>offside under</i>	the 10 meter	<i>law</i>
12		meter dash lines	
13	<i>by</i>	an opponent	
14	<i>obstruct</i>	an opponent	
15	<i>when</i>	an opponent	
16	<i>played by</i>	an opponent	
17	<i>tackle</i>	an opponent	
18		an opponent	<i>from</i>
19		opponent kicks	
20		the opponent	
21		the kicker	<i>must</i>
22		the kicker	<i>may</i>
23	<i>if</i>	the kicker	
24		kicker indicates to the referee	
25	<i>the</i>	opposing team	
26	<i>the</i>	opposing team	<i>must</i>
27	<i>if the</i>	opposing team	<i>has</i>
28		opposing team	<i>throws in</i>
29	<i>the</i>	opposing team	<i>must immediately</i>
30	<i>for</i>	an infringement	<i>by</i>
31	<i>the</i>	place of infringement	
32	<i>at the</i>	place of infringement	

continued

33		the infringement	
34	<i>(any)</i>	infringement by the kickers team	
35	<i>the</i>	playing area	
36	<i>enter the</i>	playing area	
37	<i>in</i>	the playing area	
38	<i>on</i>	the playing area	
39	<i>may enter</i>	the playing area	
40	<i>players on</i>	the playing area	
41	<i>to leave</i>	the playing area	
42		in goal area	
43	<i>for</i>	foul play	
44	<i>but for</i>	foul play	
45		foul play	<i>by the</i>
46		foul play	<i>by the defending</i>
47	<i>the</i>	goal lines	
48	<i>in</i>	goal lines	
49	<i>parrallel to the</i>	goal lines	
50	<i>touch in</i>	goal lines	
51	<i>the touch in</i>	goal lines	
52		dash lines	<i>which are</i>
53	<i>meter</i>	dash lines	
54		offside lines	
55	<i>player is</i>	put onside	
56	<i>be</i>	put onside	
57	<i>be</i>	put onside	<i>by</i>
58	<i>player can be</i>	put onside	
59	<i>offside and</i>	onside in general play	
60	<i>at</i>	the start	<i>of</i>
61	<i>the</i>	touch judge	
62	<i>a</i>	touch judge	
63	<i>the</i>	touch judge or assistant referee	
64		in goal judge	
65		on or over	<i>the</i>

continued

66		on or over	<i>the dead ball line</i>
67		on or over	<i>the goal line</i>
68		the ball falls over	
69	<i>or</i>	assistant referee (s)	
70	<i>the</i>	assistant referee	
71		an assistant	<i>referee</i>
72	<i>the</i>	touch judge or assistant referee(s)	
73	<i>the</i>	ball carrier	
74	<i>a</i>	ball carrier	
75	<i>the</i>	ball carrier	<i>brought to</i>
76	<i>the</i>	ball carrier	<i>brought to ground</i>
77	<i>the</i>	ball carrier	<i>has</i>
78		ball or the ball carrier	
79	<i>the</i>	hindmost foot	
80	<i>runs through the</i>	hindmost foot	
81		one foot	
82		foot of the hindmost player	
83		the foot	
84		to signal	
85	<i>the</i>	tackled player	
86	<i>a</i>	tackled player	
87	<i>at</i>	the center	
88		the center	<i>of the</i>
89	<i>free kick</i>	the center	
90	<i>scrum at</i>	the center	
91	<i>a scrum at</i>	the center	
92		the center	<i>of the 22 meter line</i>
93	<i>offtending team at</i>	the center	
94	<i>a scrum</i>	is formed	
95	<i>the scrum</i>	is formed	
96		is formed	<i>in</i>
97	<i>scrum</i>	is formed	<i>in</i>

continued

98	<i>prop</i>	must bind	
99		must bind	<i>on</i>
100		must bind	<i>on the</i>
101		a union	
102		the union	
103		rugby union	
104		any action	
105		assistant referees	
106		the referees	
107		Touch judges or assistant referees	
108		head injury	<i>assessment</i>
109	<i>a</i>	blood injury	
110	<i>no</i>	gain in ground	
111	<i>the</i>	player throwing	
112	<i>the</i>	player throwing	<i>in</i>
113	<i>hands of the</i>	player throwing	
114	<i>the</i>	player throwing	<i>in the ball</i>
115	<i>the</i>	team throwing	<i>in the ball</i>
116	<i>a player</i>	carrying the ball	
117	<i>foot of</i>	the hindmost	
118	<i>foot of</i>	the hindmost	<i>player</i>
119	<i>the</i>	hindmost foot	<i>of</i>
120	<i>runs through the</i>	hindmost foot	<i>of</i>
121	<i>the</i>	hindmost player	
122	<i>of the</i>	hindmost player	
123	<i>the</i>	hindmost teammate	
124	<i>of the</i>	hindmost teammate	
125	<i>the</i>	match officials	

continued

126		the flag	
127		a flag	
128		flag posts	
129		runs through	<i>the hindmost foot</i>
130	<i>a player</i>	may wear	
131	<i>a player</i>	may wear	<i>any</i>
132	<i>a player</i>	must not wear	
133	<i>a player</i>	must not wear	<i>any</i>
134	<i>to</i>	choose an end	
135	<i>to</i>	leave the playing area	
136		replacements and substitutions	
137		to indicate	
138		be penalised	
139		is penalised	
140	<i>of</i>	the tunnel	
141	<i>the</i>	front rows	
142	<i>meter</i>	dash lines	
143		dash lines	<i>which are</i>
144		shoulders parallel	<i>with</i>
145		the shoulders	
146	<i>the referee must</i>	blow the whistle	
147	<i>the winner of</i>	the toss	<i>decides</i>
148	<i>time</i>	is allowed	
149	<i>cautioned and</i>	temporarily suspended	

continued

150	<i>where</i>	the ball lands	
151		the receiver	
152	<i>the ball</i>	becomes unplayable	
153		repeated infringements	
154		not straight	
155		in any direction	
156	<i>or</i>	obstruct an opponent	
157		forming a scrum	
158	<i>the kick</i>	is disallowed	
159		suitably trained	
160		not join	<i>the</i>
161		jumping for the ball	
162		the winner	<i>of the</i>
163		the winner	<i>of the toss decides</i>
164		replacements and substitutions	
165		period of suspension	
166		cautioned and temporarily suspended	
167		uncontested scrums	
168		the tackler	
169		team results	<i>in</i>
170	<i>the kickers</i>	team results	<i>in</i>

continued

171		bound to	<i>the</i>
172		must stay	
173		picks up	<i>the ball</i>
174		substituted players rejoining the match	
175		an interval	
176	<i>no</i>	longer than	
177		fall on	
178		period of suspension	
179		must keep	
180		ground the ball	
181		their heads	
182		the referee allows	
183		the thrower	
184	<i>directly</i>	into touch	
185	<i>goes directly</i>	into touch	
186	<i>went</i>	into touch	
187	<i>the ball went</i>	into touch	
188	<i>it went</i>	into touch	
189	<i>is kicked directly</i>	into touch	
190		the touch	<i>in goal</i>
191		the touch	<i>in goal lines</i>
192	<i>the</i>	line of touch	
193		touch and lineout	
194	<i>a</i>	touch down	
195	<i>a</i>	touch judge or assistant referee	

continued

196	<i>the</i>	touch judge or assistant referee(s)	
197	<i>the</i>	touch line	
198		a maul	
199	<i>in</i>	the maul	
200	<i>a</i>	ruck or maul	
201	<i>the</i>	ruck or maul	
202		dead ball	<i>line</i>
203	<i>the</i>	dead ball	
204	<i>the</i>	dead ball	<i>line</i>
205	<i>over the</i>	dead ball	<i>line</i>
206	<i>on or over the</i>	dead ball	<i>line</i>
207	<i>the ball</i>	becomes dead	
208		made dead	
209		make it dead	
210		the ball is dead	
211	<i>from</i>	the touchline	
212	<i>meters from</i>	the touchline	
213	<i>to</i>	the touchline	
214	<i>right angles</i>	the touchline	
215	<i>on</i>	the touchline	
216	<i>non</i>	offending team	
217	<i>the non</i>	offending team	
218	<i>to the non</i>	offending team	
219	<i>awarded to the non</i>	offending team	
220	<i>on the</i>	offending teams	<i>offside line</i>
221	<i>if</i>	the offence	
222	<i>if</i>	the offence	<i>prevents</i>
223		an offence	
224		the props	
225		the hooker	
226		must retire	

continued

227		retire behind	<i>the offside line</i>
228	<i>a</i>	goal post	
229		the crossbar	
230	<i>the</i>	tighthead prop	
231		tighthead prop	<i>must</i>
232		knock on	<i>or throw forward</i>
233	<i>a</i>	knock on	
234	<i>in</i>	a ruck	
235	<i>when</i>	a ruck	
236	<i>in</i>	the ruck	
237	<i>in</i>	the ruck	<i>or maul</i>
238	<i>an</i>	opposition player	
239		the opposition	
240	<i>if</i>	the referee	
241	<i>to</i>	the referee	
242	<i>when</i>	the referee	
243		the referee	<i>must</i>
244		the referee	<i>must blow the whistle</i>
245		the referee	<i>may</i>
246		the referee	<i>has</i>
247		the referee	<i>allows</i>
248		the referee	<i>believes</i>
249		the referee	<i>awards</i>
250	<i>kicker indicates to</i>	the referee	
251	<i>the</i>	assistant referee	
252		touch judge or assistant referee	
253	<i>from</i>	the mark	
254	<i>the place of</i>	the mark	
255	<i>away from</i>	the mark	
256	<i>line through</i>	the mark	
257	<i>made</i>	the mark	
258	<i>scrum at</i>	the mark	

continued

259		the mark	<i>for the</i>
260		the mark	<i>for the penalty kick</i>
261		a mark	
262		be played	
263		is played	
264		last played	
265		not played	
266		was played	
267		played by	<i>an opponent</i>
268	<i>a</i>	conversion kick	
269		a conversion	
270		the conversion	
271	<i>in</i>	a position	
272	<i>a</i>	player scores	<i>a</i>
273	<i>blow</i>	the whistle	
274	<i>blows</i>	the whistle	
275	<i>referee must blow</i>	the whistle	
276	<i>the referee blows</i>	the whistle	
277	<i>kick</i>	is taken	
278	<i>the throw in</i>	is taken	
279	<i>the kick</i>	is taken	
280	<i>the penalty kick</i>	is taken	
281	<i>free kick</i>	is taken	
282	<i>must</i>	be taken	
283	<i>in</i>	the field	
284	<i>in</i>	the field	<i>of play</i>
285	<i>to</i>	the field	<i>of play</i>
286	<i>return to</i>	the field	<i>of play</i>
287	<i>from the</i>	the field	<i>of play</i>
288	<i>line across</i>	the field	
289	<i>have</i>	been scored	
290	<i>a try</i>	is scored	

continued

291		score a try	
292		to score	<i>a</i>
293	<i>after</i>	a score	
294	<i>the ball</i>	is kicked	
295	<i>if the ball</i>	is kicked	
296		is kicked	<i>directly into touch</i>
297	<i>when it</i>	is kicked	
298		kicked off	
299	<i>the ball</i>	was kicked	
300		time lost	
301		both hands	
302		the hands	<i>of the player throwing</i>
303	<i>score</i>	a try	
304	<i>prevents</i>	a try	
305	<i>if</i>	a try	<i>would probably</i>
306		a try	<i>is scored</i>
307	<i>a</i>	penalty try	
308	<i>a</i>	penalty try	<i>is awarded</i>
309		penalty try	<i>must be awarded</i>
310		the try	
311		uncontested scrums	
312	<i>penalty and</i>	free kicks	
313		kicks the ball	
314	<i>kick off</i>	restart kicks	
315		opponents kicks	
316		space between	
317	<i>in</i>	a scrum	
318	<i>to have</i>	a scrum	
319	<i>play in</i>	a scrum	
320	<i>forming a</i>	a scrum	

continued

321	<i>if</i>	a scrum	
322		a scrum	<i>is ordered</i>
323		a scrum	<i>must</i>
324		a scrum	<i>at the center</i>
325		a scrum	<i>the place</i>
326		a scrum	<i>the mark</i>
327		the scrum	<i>is formed</i>
328		scrum is awarded	
329		scrum or lineout	
330	<i>a</i>	drop out	
331		a drop	<i>kick</i>
332		long throw	
333		is held	
334		must stand	
335	<i>on</i>	the ground	
336	<i>touches</i>	the ground	
337	<i>a player or</i>	the ground	
338	<i>ball on</i>	the ground	
339	<i>lying on</i>	the ground	
340	<i>player(s) on</i>	the ground	
341	<i>brought</i>	to ground	
342	<i>ball carrier brought</i>	to ground	
343	<i>first</i>	to ground	
344	<i>is first</i>	to ground	
345	<i>first</i>	to ground	<i>the ball</i>
346	<i>is first</i>	to ground	<i>the ball</i>
347	<i>no</i>	gain in ground	
348	<i>the ball is</i>	thrown in	
349	<i>being</i>	thrown in	
350	<i>the ball is</i>	thrown in	
351	<i>the</i>	ball is thrown	
352	<i>when the</i>	ball is thrown	
353	<i>goes</i>	directly into touch	

continued

354		kicked directly	<i>into touch</i>
355	<i>is</i>	kicked directly	<i>into touch</i>
356		has gone	<i>into touch</i>
357		number of players	
358	<i>who usually wears</i>	jersey number	
359	<i>on</i>	their feet	
360	<i>are on</i>	their feet	
361	<i>with one or</i>	both feet	
362		both feet	<i>on</i>
363	<i>the</i>	temporary replacement	
364	<i>if the</i>	temporary replacement	
365		a replacement	
366		move away	
367		not move	
368		to move	
369		the replaced	<i>player</i>
370		be replaced	
371		temporarily replaced	
372	<i>the</i>	world rugby	
373		rugby union	
374	<i>line</i>	across the field	
375	<i>in</i>	possession of	<i>the ball</i>
376	<i>not in</i>	possession of	<i>the ball</i>
377	<i>the team</i>	not in possession	
378	<i>the team</i>	in possession	
379		the back	
380		there is doubt	
381		the teams	<i>change ends</i>

continued

382	<i>kick on</i>	the offending teams	<i>offside line</i>
383		that teams	
384		the middle	<i>line</i>
385	<i>a</i>	drop out	
386	<i>the</i>	ball is out	<i>of play</i>
387		comes out	
388		out of the scrum	
389	<i>after</i>	a tackle	
390		must not tackle	
391	<i>at</i>	the tackle	
392		tackle an opponent	
393		to tackle	
394		tighthead prop	<i>must</i>
395		loosehead prop	
396		prop must bind	
397	<i>who usually wears</i>	jersey number	
398	<i>the</i>	goal posts	
399		flag posts	
400	<i>during</i>	the match	
401	<i>substituted players rejoining</i>	the match	
402	<i>before</i>	the match	
403	<i>to</i>	the match	
404	<i>during</i>	a match	
405	<i>the</i>	match officials	
406	<i>the</i>	match organiser	
407	<i>a</i>	match organiser	
408		match 396rganizer(s)	<i>may</i>
409		method of scoring	
410	<i>an</i>	injured player	

continued

411		front row	<i>player(s)</i>
412	<i>a</i>	front row	
413	<i>a</i>	front row	<i>player</i>
414	<i>the</i>	front row	
415		front row	<i>player(s) must</i>
416	<i>the</i>	defending team	
417	<i>by the</i>	defending team	
418	<i>foul play by the</i>	defending team	
419	<i>a</i>	defending player(s)	
420		takes place	
421		to catch	
422	<i>in</i>	the lineout	
423	<i>taking part in</i>	the lineout	
424	<i>at</i>	the lineout	
425		the lineout	<i>ends</i>
426	<i>in</i>	a lineout	
427		a lineout	<i>player</i>
428	<i>at</i>	a lineout	
429		touch and lineout	
430	<i>a</i>	lineout player(s)	
431		scrum or lineout	
432	<i>this is</i>	dangerous play	
433		plays the ball	
434		must not charge	
435		may charge	
436	<i>the</i>	scrum half	<i>must</i>
437	<i>a</i>	scrum half	
438		scrum half	<i>must</i>
439	<i>the</i>	scrum half	<i>must</i>
440	<i>the</i>	scrum half	<i>must throw</i>
441		scrum half	<i>must throw in</i>
442		scrum half	<i>throws</i>

continued

443	<i>the</i>	half way	<i>line</i>
444	<i>the center of the</i>	half way	<i>line</i>
445		half time	
446		each half	
447		dropped goal	
448		quick throw	<i>in</i>
449	<i>a</i>	quick throw	<i>in</i>
450		fifteen players	
451		loosehead prop	
452	<i>laws of</i>	the game	
453	<i>the laws of</i>	the game	
454	<i>part</i>	in the game	
455	<i>take part</i>	in the game	
456		a game	
457	<i>knock on or</i>	throw forward	
458	<i>was</i>	moving forward	
459	<i>team was</i>	moving forward	
460	<i>the</i>	attacking team	
461	<i>the</i>	attacking team	<i>throws</i>
462	<i>by the</i>	attacking team	
463	<i>an</i>	attacking player	
464	<i>if an</i>	attacking player	
465	<i>seven</i>	a side	
466	<i>seven</i>	a side	<i>variations</i>
467	<i>ten</i>	a side	
468		side of the	
469		as a result of	
470		the result	
471	<i>if</i>	a player	
472	<i>when</i>	a player	

continued

473	<i>has touched</i>	a player	
474		a player	<i>who</i>
475		a player	<i>carrying</i>
476		a player	<i>carrying the ball</i>
477		a player	<i>in</i>
478		a player	<i>must not</i>
479		a player	<i>must not wear</i>
480		a player	<i>scores</i>
481		a player	<i>may wear</i>
482		a player	<i>must not intentionally</i>
483	<i>if</i>	the player	
484	<i>the hands of</i>	the player	
485		the player	<i>must</i>
486		the player	<i>who</i>
487		the player	<i>is offside</i>
488		the player	<i>throwing in</i>
489		no player	<i>may wear</i>
490		player is	<i>not</i>
491		player is	<i>put</i>
492		player is	<i>put onside</i>
493		player who	
494	<i>if</i>	that player	
495		that player	<i>may</i>
496		that player	<i>must</i>
497	<i>the</i>	offside player	
498	<i>an</i>	offside player	
499		any player	<i>may</i>
500		any player	<i>may take</i>
501	<i>a</i>	defending player	
502	<i>a</i>	front row player	
503	<i>a</i>	tackled player	
504	<i>if an</i>	attacking player	
505	<i>an</i>	attacking player	
506		player is offside	
507		another player	
508	<i>an</i>	opposition player	
509		player can	
510	<i>foot of the</i>	hindmost player	
511	<i>the</i>	hindmost player	

continued

512	<i>an</i>	injured player	
513	<i>a</i>	lineout player	
514	<i>directly</i>	into touch	
515	<i>went</i>	into touch	
516	<i>it went</i>	into touch	
517	<i>the ball went</i>	into touch	
518	<i>goes directly</i>	into touch	
519	<i>has gone</i>	into touch	
520	<i>kicked directly</i>	into touch	
521	<i>is kicked directly</i>	into touch	
522	<i>whereit went</i>	into touch	
523		into touch	<i>in goal</i>
524	<i>or</i>	touch in goal	
525	<i>the</i>	touch in goal	
526	<i>touch or</i>	touch in goal	
527	<i>the</i>	touch in goal	<i>lines</i>
528	<i>behind the</i>	line of touch	
529	<i>the</i>	line of touch	
530		touch and lineout	
531	<i>the</i>	touch judge(s)	
532	<i>a</i>	touch judge(s)	
533		touch judge(s)	<i>or assistant referee(s)</i>
534	<i>the ball is</i>	in touch	
535		a touch	<i>down</i>
536	<i>the</i>	touch line	
537		each touch	
538	<i>the</i>	offside line	
539	<i>behind the</i>	offside line	
540	<i>retire behind the</i>	offside line	
541	<i>teams</i>	offside line	
542	<i>the offending teams</i>	offside line	
543	<i>in front of the</i>	offside line	
544	<i>on the offending teams</i>	offside line	
545		offside line	<i>for</i>
546	<i>the</i>	offside player	
547	<i>an</i>	offside player	
548	<i>the player</i>	is offside	
549	<i>a player who</i>	is offside	

continued

550		offside and onside	<i>in general</i>
551		offside under the 10 meter law	
552		throws in	<i>the ball</i>
553	<i>team</i>	throws in	<i>the ball</i>
554	<i>the attacking team</i>	throws in	<i>the ball</i>
555	<i>the opposing team</i>	throws in	<i>the ball</i>
556		throws the ball	
557		scrum half throws	
558		who throws	
559	<i>the</i>	throw in	
560	<i>quick</i>	throw in	
561	<i>a quick</i>	throw in	
562	<i>they</i>	throw in	
563		throw in	<i>the ball</i>
564	<i>the</i>	throw in	<i>is taken</i>
565	<i>they</i>	throw in	<i>the ball</i>
566	<i>must</i>	throw in	<i>the ball</i>
567	<i>scrum half must</i>	throw in	<i>the ball</i>
568	<i>knock on or</i>	throw forward	
569		throw the ball	
570		long throw	
571	<i>be</i>	behind the ball	
572	<i>must be</i>	behind the ball	
573	<i>retire</i>	behind the offside line	
574		behind the goal	
575	<i>meters</i>	behind the line	
576	<i>on or behind</i>	behind the goal line	
577		behind the line of touch	
578		from behind	
579	<i>but for</i>	foul play	
580		foul play	<i>by the defending team</i>
581	<i>the</i>	field of play	
582	<i>in the</i>	field of play	
583	<i>to the</i>	field of play	
584	<i>from the</i>	field of play	

continued

585	<i>in</i>	general play	
586	<i>onside in</i>	general play	
587	<i>to</i>	play the ball	
588	<i>this is</i>	dangerous play	
589		play continues	
590		fair play	
591		out of play	
592	<i>to</i>	play on	
593		play is restarted	
594		play is continued	
595		stop play	
596		front row	<i>player(s)</i>
597	<i>a</i>	front row	<i>player</i>
598	<i>the</i>	front row	<i>s</i>
599		front row	<i>player(s) must</i>
600		in front of	<i>the ball</i>
601		in front of	<i>the offside</i>
602		in front of	<i>them</i>
603	<i>runs</i>	in front of	
604		two front	
605		the place	<i>where</i>
606		the place	<i>of infringement</i>
607		the place	<i>where the ball</i>
608		the place	<i>the mark</i>
609		the place	<i>of</i>
610	<i>at</i>	the place	<i>of</i>
611	<i>kick at</i>	the place	<i>of</i>
612	<i>opposite</i>	the place	<i>of</i>
613	<i>awarded at</i>	the place	
614	<i>is awarded at</i>	the place	
615	<i>in line with</i>	the place	
616	<i>scrum at</i>	the place	
617	<i>a scrum at</i>	the place	
618	<i>penalty kick at</i>	the place	
619	<i>at</i>	the place	<i>of infringement</i>
620		a place kick	
621	<i>cannot</i>	take(s) place	

continued

622		penalty kick	<i>on the</i>
623		penalty kick	<i>on the number meter line</i>
624		penalty kick	<i>on the offending team</i>
625		penalty kick	<i>is taken</i>
626		penalty kick	<i>at the place</i>
627		penalty kick	<i>at goal</i>
628		penalty kick	<i>or free kick</i>
629	<i>a</i>	penalty kick	
630	<i>the</i>	penalty kick	
631	<i>for the</i>	penalty kick	
632	<i>mark for the</i>	penalty kick	
633	<i>a</i>	penalty kick	<i>is awarded</i>
634	<i>the</i>	penalty kick	<i>is taken</i>
635	<i>take</i>	the kick	
636	<i>take</i>	the kick	<i>within</i>
637		the kick	<i>is disallowed</i>
638		the kick	<i>is taken</i>
639		the kick	<i>must be</i>
640	<i>a</i>	free kick	
641	<i>penalty or</i>	free kick	
642	<i>the</i>	free kick	
643		free kick	<i>on the number meter line</i>
644		free kick	<i>is awarded</i>
645		free kick	<i>at the center</i>
646		free kick	<i>is taken</i>
647	<i>a</i>	free kick	<i>is awarded</i>
648		kick off	<i>and restart</i>
649		kick off	<i>and restart kicks</i>
650	<i>a</i>	kick off	
651	<i>at a</i>	kick off	
652	<i>the</i>	kick off	
653	<i>a</i>	drop kick	
654	<i>a</i>	conversion kick	
655	<i>approach</i>	to kick	
656	<i>intention</i>	to kick	
657		to kick	<i>at goal</i>
658	<i>The intention</i>	to kick	<i>at goal</i>
659		place kick	

continued

660		type of kick	
661	<i>the</i>	in goal	
662	<i>in the</i>	in goal	
663	<i>opponents</i>	in goal	
664	<i>the opponents</i>	in goal	
665	<i>into the</i>	in goal	
666	<i>into touch</i>	in goal	
667	<i>into the opponents</i>	in goal	
668	<i>the touch</i>	in goal	
669	<i>touch or touch</i>	in goal	
670	<i>the</i>	goal line (s)	
671	<i>from the</i>	goal line (s)	
672	<i>meters from the</i>	goal line (s)	
673	<i>players</i>	goal line (s)	
674	<i>in</i>	goal line (s)	
675	<i>parallel to the</i>	goal line (s)	
676	<i>to the</i>	goal line (s)	
677	<i>within 5 meters of the</i>	goal line (s)	
678	<i>their</i>	goal line (s)	
679	<i>behind the</i>	goal line (s)	
680	<i>near the</i>	goal line (s)	
681	<i>opponents</i>	goal line (s)	
682	<i>over the</i>	goal line (s)	
683	<i>that players</i>	goal line (s)	
684		in goal	<i>judge</i>
685		in goal	<i>area</i>
686	<i>to kick</i>	at goal	
687	<i>a kick</i>	at goal	
688	<i>penalty kick</i>	at goal	
689	<i>intention to kick</i>	at goal	
690		penalty goal	
691		a goal	
692	<i>the</i>	goal post (s)	
693	<i>a</i>	goal post (s)	
694	<i>between the</i>	goal post (s)	
695	<i>to the</i>	goal post (s)	
696	<i>on or over the</i>	goal post (s)	
697	<i>on or behind the</i>	goal post (s)	
698		dropped goal	

continued

699		each goal	
700		the players	<i>team</i>
701		players must	<i>not</i>
702		front row players	<i>must</i>
703		number of players	
704		players from each team	
705		players goal line	
706		lineout players	
707		substituted players rejoining the match	
708		players on the playing area	
709		three/fifteen/five players	
710		defending players	
711		players on the ground	
712		that players goal line	
713	<i>that</i>	players team	
714		other players	
715		players clothing	
716		all players	
717		the team	<i>in possession</i>
718		the team	<i>not in possession</i>
719		the team	<i>throwing</i>
720	<i>the</i>	opposing team	
721	<i>if the</i>	opposing team	
722	<i>the</i>	opposing team	<i>must</i>
723	<i>the</i>	opposing team	<i>must immediately</i>
724		opposing team	<i>throws in</i>
725	<i>a</i>	team mate (s)	<i>who</i>
726	<i>the hindmost</i>	team mate (s)	
727	<i>when a</i>	team mate (s)	
728	<i>non</i>	offending team	
729	<i>the non</i>	offending team	
730	<i>to the non</i>	offending team	
731	<i>the non</i>	offending team	<i>at the center</i>
732	<i>the</i>	defending team	
733	<i>by the</i>	defending team	
734	<i>from</i>	each team	
735	<i>players from</i>	each team	

continued

736		each team	<i>must</i>
737	<i>the</i>	kickers team	
738	<i>all the</i>	kickers team	
739	<i>infringement by the</i>	kickers team	<i>results in</i>
740	<i>the</i>	attacking team	<i>throws in the ball</i>
741	<i>by the</i>	attacking team	
742		that team	
743	<i>the</i>	same team	
744		either team	
745		neither team	
746	<i>when</i>	a team	
747	<i>if</i>	a team	
748		a team	<i>must</i>
749	<i>in</i>	the ball	
750	<i>when</i>	the ball	
751	<i>where</i>	the ball	
752	<i>throws in</i>	the ball	
753	<i>up</i>	the ball	
754	<i>for</i>	the ball	
755	<i>play</i>	the ball	
756	<i>with</i>	the ball	
757	<i>kicks</i>	the ball	
758	<i>to ground</i>	the ball	
759	<i>behind</i>	the ball	
760	<i>kick</i>	the ball	
761	<i>that</i>	the ball	
762	<i>the place where</i>	the ball	
763	<i>they throw in</i>	the ball	
764	<i>throw</i>	the ball	
765	<i>throws</i>	the ball	
766	<i>until</i>	the ball	
767	<i>a player carrying</i>	the ball	
768	<i>playing</i>	the ball	
769	<i>release</i>	the ball	
770	<i>possession of</i>	the ball	
771	<i>carrying</i>	the ball	
772	<i>to play</i>	the ball	
773	<i>after</i>	the ball	
774	<i>in front of</i>	the ball	

continued

775	<i>in possession of</i>	the ball	
776	<i>must be behind</i>	the ball	
777	<i>jumping for</i>	the ball	
778	<i>picks up</i>	the ball	
779	<i>picked up</i>	the ball	
780	<i>on</i>	the ball	
781	<i>must throw in</i>	the ball	
782	<i>throwing</i>	the ball	
783	<i>as soon as</i>	the ball	
784	<i>gains possession</i>	the ball	
785	<i>near</i>	the ball	
786	<i>plays</i>	the ball	
787	<i>team throwing in</i>	the ball	
788	<i>while</i>	the ball	
789		the ball	<i>carrier</i>
790		the ball	<i>must</i>
791		the ball	<i>is thrown</i>
792		the ball	<i>becomes</i>
793		the ball	<i>is kicked</i>
794		the ball	<i>is thrown in</i>
795		the ball	<i>lands</i>
796		the ball	<i>has been</i>
797		the ball	<i>is not</i>
798		the ball	<i>goes</i>
799		the ball	<i>at</i>
800		the ball	<i>becomes dead</i>
801		the ball	<i>went into touch</i>
802		the ball	<i>does not</i>
803		the ball	<i>on</i>
804		the ball	<i>is out of</i>
805		the ball	<i>leaves</i>
806		the ball	<i>may</i>
807		the ball	<i>must not</i>
808		the ball	<i>touches</i>
809		the ball	<i>is dead</i>
810		the ball	<i>is in touch</i>
811		the ball	<i>in in goal</i>
812		the ball	<i>becomes unplayable</i>
813		the ball	<i>falls over</i>
814		the ball	<i>into the scrum</i>

continued

815		the ball	<i>must be</i>
816		the ball	<i>was kicked</i>
817		the ball	<i>is thrown</i>
818	<i>when</i>	the ball	<i>is</i>
819	<i>where</i>	the ball	<i>went</i>
820	<i>where</i>	the ball	<i>lands</i>
821	<i>if</i>	the ball	<i>is kicked</i>
822	<i>when</i>	the ball	<i>is thrown</i>
823	<i>the</i>	dead ball	
824		dead ball	<i>line</i>
825	<i>the</i>	dead ball	<i>line</i>
826	<i>over the</i>	dead ball	<i>line</i>
827	<i>a</i>	ball carrier (s)	
828		ball carrier (s)	<i>brought to</i>
829		ball carrier (s)	<i>brought to ground</i>
830	<i>the</i>	playing area	
831	<i>enter the</i>	playing area	
832	<i>in the</i>	playing area	
833	<i>on the</i>	playing area	
834	<i>players on</i>	playing area	
835	<i>may enter the</i>	playing area	
836	<i>leave the</i>	playing area	
837	<i>to leave the</i>	playing area	
838	<i>the</i>	playing enclosure	
839	<i>minutes</i>	playing time	
840		playing the ball	
841		penalty kick	<i>on the</i>
842		penalty kick	<i>on the number meter line</i>
843		penalty kick	<i>is awarded</i>
844		penalty kick	<i>at goal</i>
845		penalty kick	<i>at the place</i>
846		penalty kick	<i>or free kick</i>
847	<i>a</i>	penalty kick	
848	<i>the</i>	penalty kick	
849	<i>mark for the</i>	penalty kick	
850	<i>the mark for the</i>	penalty kick	
851	<i>a</i>	penalty kick	<i>is awarded</i>

continued

852	<i>the</i>	penalty kick	<i>is taken</i>
853	<i>a</i>	penalty try	
854	<i>a</i>	penalty try	<i>is awarded</i>
855		penalty try	<i>must be awarded</i>
856	<i>take a</i>	penalty or free kick	
857		awarded a penalty	
858		penalty goal	
859	<i>on</i>	meter line	
860	<i>on the number</i>	meter line	
861	<i>beyond the number</i>	meter line	
862	<i>opponents number</i>	meter line	
863	<i>the number</i>	meter line	
864	<i>the opponents number</i>	meter line	
865	<i>the</i>	goal line	
866	<i>meters from the</i>	goal line	
867	<i>players</i>	goal line	
868	<i>their</i>	goal line	
869	<i>behind the</i>	goal line	
870	<i>near the</i>	goal line	
871	<i>opponents</i>	goal line	
872	<i>on or behind the</i>	goal line	
873	<i>on or over the</i>	goal line	
874	<i>the players</i>	goal line	
875	<i>the</i>	offside line	
876	<i>the offending teams</i>	offside line	
877	<i>behind the</i>	offside line	
878	<i>retire behind the</i>	offside line	
879	<i>the</i>	half way line	
880	<i>the</i>	dead ball line	
881	<i>over the</i>	dead ball line	
882	<i>on</i>	a line	
883	<i>the</i>	middle line	
884	<i>the</i>	touch line	
885		an imaginary line	
886		line across the field	
887		behind the line	<i>of touch</i>
888	<i>meters</i>	behind the line	<i>of touch</i>