

Education, Design and Practice – Understanding skills in a Complex World

AMPS, Architecture_MPS; Stevens Institute of Technology
New Jersey / New York: 17-19 June, 2019

EARNING SKILLS AND EXPERIENCING COLLECTIVE VALUES THROUGH DESIGN-BASED UNIVERSITY-COMMUNITY PARTNERSHIPS

Author:

CARLES MARTINEZ-ALMOYNA GUAL

Institution:

VICTORIA UNIVERSITY OF WELLINGTON

INTRODUCTION

Contemporary societies risk inequality, disintegration and segregation due to a complex array of social, economic and political changes that have been occurring over the last few decades.¹ These changes include the loss of shared values, changes in how individuals interact and get together, and new practices relating to participation and decision-making.

In parallel to the evolution of contemporary societies, a complex array of changes are transforming the physical environment where these societies live and work.² These changes are affecting especially the disciplines that plan, design and transform the physical environment. New processes of transformation, new ways of interaction, new types of projects and new professional roles are deeply transforming the working environment of architectural disciplines.³

While these changes offer new opportunities for innovation, they also threaten to generate division in diverse and complex societies. Within this context, universities have the opportunity to expand their social responsibility by affirming that teaching and research can contribute to redressing social inequality, disintegration and segregation. This can be achieved through action,⁴ exploring new ways of relating universities to their social context by working with *real* projects and *real* people, establishing links between academia and practice.

Educating citizens, not just students

Civic learning can be experienced if universities engage with communities.⁵ Universities can empower diverse groups of individuals, facilitate collective experiences, develop self-management, and activate bottom-up approaches to decision making. Universities can facilitate learning new ways of understanding citizenship⁶ by promoting participatory processes through partnerships⁷. By creating a collective project between communities, students and academics, new skills and new values can be learned through experience.

Education, Design and Practice – Understanding skills in a Complex World

AMPS, Architecture_MPS; Stevens Institute of Technology
New Jersey / New York: 17-19 June, 2019

Shaping new professional identities

Partnerships expand teaching and research, enabling experience of practice-based education through the development of *real* projects.⁸ Students can begin to develop skills relevant to practice and frame professional identities underpinned by civic engagement and social responsibility, whilst helping communities understand and improve their conditions. Collaborative and interdisciplinary work, participatory methods, or new professional roles such as facilitator, mediator, educator or builder, can be learned through the experience of a participatory project.

Earning skills and experiencing collective values

This research aims to assess the capacity of design-based partnerships to shape collective values and facilitate learning of civic skills when undertaking a change in a physical environment. From within the framework of an Action Research methodology, different partnerships have informed this paper. The projects were facilitated by communities and local governments in New Zealand and were developed within design courses of landscape architecture. Reflections show that partnerships enable civic engagement through participatory processes. They are useful instruments for helping communities transform their physical environment. But partnerships are also essential tools for experiencing civic learning and for creating a sense of empowerment – a feeling that when working together, independently of age, qualification, or beliefs, important changes can happen.



Figure 1 - Different partnerships: workshop, construction, opening event (from left to right)

1. THE METHOD

1.1 Partnerships as the medium

Partnerships between universities and communities are valuable personal and collective experiences where learning is maximized and economic interests either don't exist or tend to be secondary.⁹ Partnerships are also useful instruments for generating shared ideas that can be carried down to implementation following participatory design methodologies.¹⁰ By facilitating different and subsequent partnerships, the applied methodology was developed and adapted to different contexts, seeking to maximize the outcomes over time for communities, students and academics.

Education, Design and Practice – Understanding skills in a Complex World

AMPS, Architecture_MPS; Stevens Institute of Technology
New Jersey / New York: 17-19 June, 2019

1.2 Working at local and community levels

In order to fully experience civic engagement, the university must engage with the social, cultural, and economic life of its city and region,¹¹ addressing issues of public concern through teaching and research¹². Communities may be able to mobilize and self-organize, but what they can rarely achieve is to undertake complex projects by themselves. A partnership with a university can meet most community needs.¹³ The developed methodology targeted two types of partners:

- Community groups that were politically disadvantaged and were interested in developing self-management practices.
- Local governments interested in developing a participatory process engaging with specific communities.

1.3 Develop the methodology through Participatory Action Research

Partnerships with different communities inform research and provide a substrate to critical reflection.¹⁴ Action research is ideally suited to partnerships because the projects are often fluid and change over time, providing an ideal substrate for cycles of doing, reflecting, proposing action and doing.¹⁵ The applied methodology was developed and adapted to different types of partners and projects. It enabled changes during and in-between partnerships. It also allowed to reach different ending stages: concept design, detailed design, construction and assessment of the implemented designs.

1.4 Understand design as a tool for change

To generate ideas through design is what universities are used to doing. But universities tend to struggle when they need to consider how those ideas can be implemented.¹⁶ They often do not feel comfortable when the design process gets into stages where they need to develop roles associated to practice.¹⁷

In order to meaningfully change the physical environment of communities, the methodology progressively focused the interest of the partnerships – not just on the generation of shared ideas. By adopting roles associated to practice, the goal of the methodology became to explore how the shared ideas could be developed and implemented. Going a step further from construction, the applied methodology kept on evolving. In order to improve the reflection post partnerships, the assessment of the implemented designs was considered strategic and introduced as part of the methodology.



Figure 2 - Different partnerships: workshop, construction, implemented design (from left to right)

Education, Design and Practice – Understanding skills in a Complex World

AMPS, Architecture_MPS; Stevens Institute of Technology
New Jersey / New York: 17-19 June, 2019

Table 1 – Different Case Studies (2014 – 2019)

CASE STUDY	PARTNERS	SCOPE	PROJECTS	LENGTH	ENDING PHASE	FUNDING
Featherston	2 postgraduate courses Community group Local government	Town, surroundings	Large Medium	5 months	Concept design	Community University Council
Wakefield	Undergraduate course Community group	Town, surroundings	Large Medium	6 months	Concept design	Community University Council
Otari Wilton's Bush	Undergraduate course Local government	Nursery	Medium Small	6 months	Concept design	Council
Carterton School	Undergraduate course School community	School	Small	9 months	Construction	Community University
Hurunui-o-Rangi Marae	Undergraduate course Marae community	Marae	Small	10 months	Construction	Community University
Tory Street	Undergraduate course Local government	Street	Temporary	15 months	Assessment post-implementation	Council
Paekakariki School	Undergraduate course School community	School	Small	15 months	Assessment post-implementation	Community

2. LEARNING BY DOING

Trying to maximize their impact, progressive changes were introduced in the consecutive partnerships. These were related to:

- types of partners, facilitating experimentation, adaptability and improvement of the methodology
- types of projects, reducing complexity and increasing feasibility
- ending goals of the partnerships, from the concept design stage to the assessment of the implemented designs
- internal organization of the partnerships, extending their length and improving the participatory process.

The evolution of the partnerships comprised three stages: from concept design to construction to post-implementation.

2.1 The traditional way: end at concept design stage

The initial partnerships followed the traditional approach. This means they used design courses for developing large and medium size projects down to the concept design stage. In order to maximize the experience of civic learning and the outcomes of the partnerships, several strategies were followed:

Education, Design and Practice – Understanding skills in a Complex World

AMPS, Architecture_MPS; Stevens Institute of Technology
New Jersey / New York: 17-19 June, 2019

2.1.1 Partnering with politically disadvantaged communities

Community groups from small towns located on the outer fringe of metropolitan areas were targeted. These towns are politically disadvantaged compared to larger towns of their districts and their population is in the process of change due to the arrival of new commuters. The communities were aiming to get their own projects, and use the generated designs as a base for finding resources and partners for developing the projects. The roles of the different district councils differed depending on the partnership: from no support at all, to external support, to a third partner.

2.1.2 Merging different approaches within design

Following participatory design methodologies, no specific site or programme was given to students, who needed to build their own design propositions responding to the social and physical context. In order to build a shared approach to design, interaction between the university and communities was maximized. Cohabitation, events and workshops were programmed for developing a real participatory process. Partnerships ended with final exhibitions, where communities voted for their favourite designs and students received awards.

2.1.3 Failing to change the physical environment

Partnerships ended at the concept design stage and communities were left with a collection of projects to be developed. Communities mostly failed to meaningfully change their environment due to technical, legal, economic and political complexities. As a consequence, communities lost the empowerment that the partnerships provided and dissolved. This resulted in the communities returning back to their original situation of political dependency and marginalization. The process revealed the need to explore new approaches to design based partnerships, seeking implementation and a real change in the community.



Figure 3 – final exhibition of big and complex projects (from left to right: C. Isaacs, S. Lousich)

2.2 Implementing small and feasible interventions

Maintaining the idea of using design courses for developing shared projects with politically disadvantaged communities, different goals were targeted to facilitate implementation:

2.2.1 Facilitate decision making

Education, Design and Practice – Understanding skills in a Complex World

AMPS, Architecture_MPS; Stevens Institute of Technology
New Jersey / New York: 17-19 June, 2019

In order to improve community organization, leaderships and decision making, it became strategic to work with smaller and more cohesive community groups. Public schools and Marae^A communities were targeted as partners. Both types of communities tend to be politically marginalised and struggle to fund maintenance and construction of new facilities in their properties. Therefore, they tend to be interested in developing self-management skills and design-based partnerships.

2.2.2 Reduce design complexity, funding needs and legal requirements

By working within the boundaries of the property of a community, all legal disputes are avoided and all legal requirements for construction get eliminated or at least minimized, facilitating implementation. At the same time, to target small interventions facilitates design development and makes change economically feasible by reducing funding requirements. In order to facilitate implementation further, these small interventions were designed at low cost.

2.2.3 Extend and accelerate the design process

Design research was extended beyond the concept design stage, which was simplified. Strategic sites were pre-selected by communities and the concept design stage was compressed within three weeks. Designs were presented and exhibited as a design competition between different teams of students. The communities voted for their favourite proposal. The winning proposal was developed by the university down to construction documentation.

2.2.4 Transform the physical environment through small interventions

The design goal of the partnerships generated a framework for small and feasible interventions that would be implemented over time depending on the available resources. At the same time, one of these small interventions was developed down to construction documentation by the university. Construction was planned when university courses were over and developed mostly through volunteering, enhancing the civic learning of the projects. Communities funded construction, but sponsorships played an essential role in reducing costs and facilitating implementation.

Carterton school: A Vision of the Future Structures in landscape around Akonga Maori Class Building landscape architecture students of Victoria University of Wellington



Exhibition of the designs - Carterton School Hall VOTE FOR THE BEST ONE! UNTIL 5TH OF AUGUST Make your vote for the best designs for the future of our community. (adults use yellow voting paper, children use white voting paper)

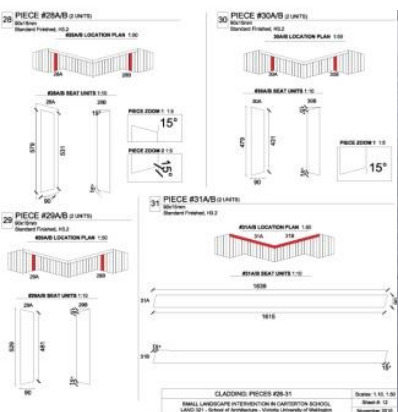


Figure 4 – From concept design to construction (VUW-LAND321 2016 class)

^A Marae are fenced-in complexes of different buildings and grounds that belong to a particular iwi (tribe), hapū (sub tribe) or whānau (family). Marae are used for meetings, celebrations, funerals, educational workshops and other important tribal events. Maori communities tend to be socially and economically deprived in New Zealand. Maori culture is trying to be raised in NZ in order to build a real bicultural country.

Education, Design and Practice – Understanding skills in a Complex World

AMPS, Architecture_MPS; Stevens Institute of Technology
New Jersey / New York: 17-19 June, 2019

2.3 Developing practice-based research

Findings of the second group of partnerships showed that it was necessary to better organize the development of the agreed design down to construction documentation as well as better manage the construction process. At the same time, the opportunity to develop specific research around the impact of the implemented designs became apparent. In order to improve the outcomes and outputs of the projects, several strategies were followed:

2.3.1 *Extending the length of the partnerships*

Partnerships were extended both before and after the university course. To extend the partnerships before the university course facilitated better organization, planning and better options to seek for funding. This guaranteed a more functional and adaptable process. On the other hand, by extending the partnerships after the university course, extra time was allowed for developing better documentation, planning and management of construction.

2.3.2 *Improving the design outputs with extra funding*

In order to improve the outputs, included in the agreement of the partnerships was funding for student scholarships, which were funded equally by the university and community. The goals of this extra stage were to finish the design process, prepare specific documentation and manage construction. Construction continued to be managed by the university and funded by communities, with the support of volunteering and sponsorships.

2.3.3 *Assessment of the implemented designs*

Findings showed the opportunity to gather knowledge around the performance of the implemented designs. Specific research post-implementation was developed and funded by the university. The main goal of these research projects was to assess the impact on communities of the implemented designs. Furthermore, to gain typological knowledge and contribute to the research environment by assessing specific aspects of the implemented designs.



Figure 5 – Construction and research post-implementation (VUW-LAND321 2017 class)

Education, Design and Practice – Understanding skills in a Complex World

AMPS, Architecture_MPS; Stevens Institute of Technology
New Jersey / New York: 17-19 June, 2019

3. FINDINGS

3.1 Civic learning

The case studies demonstrated that being part of a collective project enables the experience of civic learning for students, communities and faculty. A design-based project promotes learning of new methods of transforming the physical environment linked to participation, democratic citizenship and civic action. At the same time, facilitates communities to understand and improve their conditions while students experience practice-based education and faculty practice-based research.

Findings demonstrated the value of partnerships for training individuals about participatory design methodologies. They build capacity for active participation in future projects. Partnerships demonstrated to be valuable personal and collective experiences where learning was maximized and economic interests either did not exist or were secondary. The collective action of developing a partnership created a sense of empowerment –a sense that when working together, big things can happen.

3.2 Earning self-management skills

In parallel to understanding and improving their environment while experiencing civic learning, communities earned self-management skills. This means they were able to build a capacity for developing projects by themselves or with other partners. Findings showed that communities learned about internal organization, communication and leadership. They experienced how to make collective decisions as part of projects that are developed over time and face many complexities.

The acquiring of self-management skills was also related to tangible aspects learned mostly by the community leaders. These were related to project organization and planning, technical aspects and legal requirements of a design process, or funding opportunities and applications. At the same time, community leaders earned skills around how to interact with key stakeholders, or how to organize events such as workshops, seminars, exhibitions or collaborative construction.

3.3 Shaping new professional identities

The case studies revealed that experiencing practice-based education gives students a chance to learn skills relevant in practice. They practice the development of a design from preliminary to detailed design stages. They also have the chance to participate in the construction process: they learn how to take a hands-on approach to design. This practical aspect challenges the traditional way in which design disciplines are usually taught (solely based on intellectual capacities).

Practice-based education allows students to learn about processes of collaborative work with colleagues and communities, exploring links between speculative and pragmatic approaches to design. Students practice how to communicate their ideas to non-technical audiences. Case studies demonstrated that the most effective communication with non-technical audiences tends to happen orally. Finally, partnerships allow students to learn about new professional identities related to civic engagement. New roles that are emerging and starting to be relevant such as facilitator, educator, mediator, collaborator, activist or builder, can be experienced through these types of projects.

3.4 The academic as facilitator

Case studies demonstrated that by linking teaching with civic engagement through partnerships, academics act as facilitators of participatory processes and civic learning. Findings also showed that practice-based education opens up the boundaries of teaching and research to socio-political and

Education, Design and Practice – Understanding skills in a Complex World

AMPS, Architecture_MPS; Stevens Institute of Technology
New Jersey / New York: 17-19 June, 2019

professional environments. To work with subsequent partnerships allows building knowledge around action research, participatory processes and practice-based education. In parallel to this core research, these types of projects facilitate further research depending on the interests of the academic, what types of communities are approached and what type of projects are developed. Therefore, partnerships facilitate parallel research projects depending on the particularities and outcomes of the projects. Findings also showed that developing partnerships and doing real projects adds a substantial amount of work on the top of the responsibilities that academics already have. If universities want to favor the development of civic engagement and practice-based education, new practices need to be explored for supporting the work of academics.



Figure 6 – Different partnerships and temporary collectives

CONCLUDING REMARKS

With contemporary societies experiencing many disruptions, universities have the opportunity to expand their social responsibility by affirming that teaching and research can contribute to redressing social inequality, disintegration and segregation. This contribution can be achieved through action, by partnering with *real* people for developing *real* projects. Design-based partnerships provide the opportunity to rethink, transform and improve the physical environment. But also non-physical outputs can be achieved. Values and skills related to participation, democratic citizenship and civic action can be attained by being part of a temporary collective.

This research aims to contribute to knowledge around the importance of developing practice-based research underpinned by civic engagement and social responsibility. As the presented case studies demonstrate, design-based partnerships offer many opportunities. But at the same time, they showcase that partnerships are complex constructs that require the development of further research in order to become an effective tool within contemporary societies.

REFERENCES

- ¹ Aaronson, Deborah, ed. *Design like You Give a Damn [2]: Building Change from the Ground up*. Abrams, 2012.
- ² Bell, Bryan, and Katie Wakeford, eds. *Expanding architecture: Design as activism*. New York: Metropolis Books, 2008.
- ³ Deamer, Peggy, ed. *The architect as worker: immaterial labor, the creative class, and the politics of design*. Bloomsbury Publishing, 2015.
- ⁴ Ware, Sue Anne. "Asylum for a Design Activist," *OASE* 96 (2016): 30–33.
- ⁵ Finley, Ashley. "Civic learning and teaching." *Washington, DC: Bringing Theory to Practice* (2014).

Education, Design and Practice – Understanding skills in a Complex World

AMPS, Architecture_MPS; Stevens Institute of Technology
New Jersey / New York: 17-19 June, 2019

- ⁶ Crick, Bernard. *Education for democratic citizenship: issues of theory and practice*. Routledge, 2017.
- ⁷ Trott, Carlie D., Laura B. Sample McMeeking, and Andrea E. Weinberg. "Participatory action research experiences for undergraduates: forging critical connections through community engagement." *Studies in Higher Education* (2019): 1-14.
- ⁸ Higgs, Joy, Ronald Barnett, Stephen Billett, Maggie Hutchings, and Franziska Trede, eds. *Practice-based education: Perspectives and strategies*. Vol. 6. Springer Science & Business Media, 2013.
- ⁹ Baum, Howell S. "Fantasies and realities in university-community partnerships." *Journal of Planning Education and Research* 20, no. 2 (2000): 234-246.
- ¹⁰ Martinez-Almoyna, Carles "From big ideas to small interventions: achieving feasible changes through design based university-community partnerships" (paper presented at the 10th making cities liveable conference, Brisbane, 10 -11 July 2017). ISBN: 978-1-922232-56-4
- ¹¹ Victoria University of Wellington. 'Strategic Plan.' (2019)
- ¹² Butin, Dan. "The Future of the Civic in an Online World." *Civic learning and teaching* (2014): 1-8.
- ¹³ Strier, Roni. "The construction of university-community partnerships: Entangled perspectives." *Higher Education* 62, no. 1 (2011): 81-97.
- ¹⁴ Irazábal, Clara, Carmen Mendoza-Arroyo, Catalina Ortiz Arciniegas, Rubyselen Ortiz Sánchez, and Jairo Maya. "Enabling community-higher education partnerships: common challenges, multiple perspectives." *Current opinion in environmental sustainability* 17 (2015): 22-29.
- ¹⁵ Kindon, Sara, Rachel Pain, and Mike Kesby, eds. *Participatory action research approaches and methods: Connecting people, participation and place*. Routledge, 2007.
- ¹⁶ Badley, Graham. "The pragmatic university: a feasible utopia?." *Studies in Higher Education* 41, no. 4 (2016): 631-641.
- ¹⁷ Barnett, Ronald. "Practice-based education." In *Practice-Based Education*, pp. 241-252. Sense Publishers, Rotterdam, 2012.

BIBLIOGRAPHY

- Adams, Robin S., Shanna R. Daly, Llewellyn M. Mann, and Gloria Dall'Alba. "Being a professional: Three lenses into design thinking, acting, and being." *Design Studies* 32, no. 6 (2011): 588-607.
- Andersen, Lars Bo, Peter Danholt, Kim Halskov, Nicolai Brodersen Hansen, and Peter Lauritsen. "Participation as a matter of concern in participatory design." *CoDesign* 11, no. 3-4 (2015): 250-261.
- Banks, Sarah, Andrea Armstrong, Kathleen Carter, Helen Graham, Peter Hayward, Alex Henry, Tessa Holland et al. "Everyday ethics in community-based participatory research." *Contemporary Social Science* 8, no. 3 (2013): 263-277.
- Biesta, Gert, Maria De Bie, and Danny Wildemeersch, eds. *Civic learning, democratic citizenship and the public sphere*. Springer Science & Business Media, 2013.
- Brown, Tim, and Jocelyn Wyatt. "Design thinking for social innovation." *Development Outreach* 12, no. 1 (2010): 29-43.
- Burnell, Jeni, and Nabeel Hamdi. "Small change: the making of Starchley Park." *Community Development Journal* 49, no. 1 (2013): 159-166.
- Cassim, Fatima. "Developing citizen designers, Elizabeth Resnick." *Image & Text: a Journal for Design* 30, no. 1 (2017): 134-139.
- Checkoway, Barry. "Community development, social diversity, and the new metropolis." *Community Development Journal* 46, no. suppl_2 (2011): ii5-ii14.
- Day, Christopher, and Rosie Parnell. *Consensus design: Socially inclusive process*. Routledge, 2003.
- Downton, Peter. *Design research*. RMIT Publishing, 2003.
- Eversole, Robyn. "Remaking participation: challenges for community development practice." *Community development journal* 47, no. 1 (2010): 29-41.
- Foth, Marcus, and Martin Brynskov. "Participatory action research for civic engagement." In *Civic media: Technology, design, practice*, pp. 563-580. MIT Press, 2016.
- Friedmann, John. *Planning in the public domain: From knowledge to action*. Princeton University Press, 1987.
- Gray, Colin M. "Factors That Shape Design Thinking." *Design and Technology Education* 18, no. 3 (2013): 8-20.
- Groat, Linda N., and David Wang. *Architectural research methods*. John Wiley & Sons, 2013.
- Hacker, Karen. *Community-based participatory research*. Sage publications, 2013.
- Hall, Budd L., and Rajesh Tandon. "Participatory research: Where have we been, where are we going?—A dialogue." *Research for All* 1, no. 2 (2017): 365-374.
- Hamdi, Nabeel. *Small change: about the art of practice and the limits of planning in cities*. Routledge, 2013.
- Hamdi, Nabeel. *The placemaker's guide to building community*. Routledge, 2010.
- Harward, Donald W. "Civic values, civic practices." *Washington, DC: Bringing Theory to Practice* (2013).

Education, Design and Practice – Understanding skills in a Complex World

AMPS, Architecture_MPS; Stevens Institute of Technology
New Jersey / New York: 17-19 June, 2019

- Halskov, Kim, and Nicolai Brodersen Hansen. "The diversity of participatory design research practice at PDC 2002–2012." *International Journal of Human-Computer Studies* 74 (2015): 81-92.
- Higgs, Joy, and Alison Gates. "Realising exemplary practice-based education." In *Realising exemplary practice-based education*, pp. 275-297. Brill Sense, 2013.
- Huybrechts, Liesbeth, Henric Benesch, and Jon Geib. "Institutioning: Participatory design, co-design and the public realm." *CoDesign* 13, no. 3 (2017): 148-159.
- Iversen, Ole Sejer, Kim Halskov, and Tuck W. Leong. "Values-led participatory design." *CoDesign* 8, no. 2-3 (2012): 87-103.
- Iversen, Ole Sejer, and Christian Dindler. "Sustaining participatory design initiatives." *CoDesign* 10, no. 3-4 (2014): 153-170.
- Lawson, Hal A., James C. Carangi, Loretta Pyles, Janine M. Jurkowski, and Christine T. Bozlak. *Participatory action research*. Pocket Guides to Social Work R, 2015.
- Lenzholzer, Sanda, Ingrid Duchhart, and Jusuck Koh. "'Research through designing'in landscape architecture." *Landscape and Urban Planning* 113 (2013): 120-127.
- Luck, Rachael. "Learning to talk to users in participatory design situations." *Design studies* 28, no. 3 (2007): 217-242.
- Luck, Rachael. "Dialogue in participatory design." *Design studies* 24, no. 6 (2003): 523-535.
- McDonnell, Janet. "Scaffolding practices: A study of design practitioner engagement in design education." *Design studies* 45 (2016): 9-29.
- Morse, Suzanne W. *Smart communities: How citizens and local leaders can use strategic thinking to build a brighter future*. John Wiley & Sons, 2009.
- Pizarro, Rafael E. "Challenges of implementing sustainable urban design plans through community–university partnerships: lessons from Colombia, China, and Germany." *Current opinion in environmental sustainability* 17 (2015): 48-56.
- Posch, Peter. "4 Changing the Culture of Teaching and Learning: Implications for Action Research." *Professional Development Through Action Research: International Educational Perspectives* (2014): 61-110.
- Sanoff, Henry. *Community participation methods in design and planning*. John Wiley & Sons, 1999.
- Sanoff, Henry. "Multiple views of participatory design." *International Journal of Architectural Research: ArchNet-IJAR* 2, no. 1 (2008): 57-69.
- Schön, Donald A. "Educating the reflective practitioner." (1987): 1-10.
- Simonsen, Jesper, and Toni Robertson, eds. *Routledge international handbook of participatory design*. Routledge, 2012.
- Sinclair, Cameron, and Architecture for Humanity. *Design like you give a damn: Architectural responses to humanitarian crises*. Thames & Hudson, 2006.
- Smith, Dianne. "Joining communities: A role for reflection." In *M² Models and Methodologies for Community Engagement*, pp. 199-213. Springer, Singapore, 2014.
- Smith, Rachel Charlotte, and Ole Sejer Iversen. "Participatory design for sustainable social change." *Design Studies* 59 (2018): 9-36.
- Son, Joonmo, and Nan Lin. "Social capital and civic action: A network-based approach." *Social Science Research* 37, no. 1 (2008): 330-349.
- Strier, Roni. "Fields of paradox: university–community partnerships." *Higher Education* 68, no. 2 (2014): 155-165.
- Stringer, Ernest T. *Action research*. Sage publications, 2013.
- Tandon, Rajesh. "Participation, citizenship and democracy: reflections on 25 years' of PRIA." *Community Development Journal* 43, no. 3 (2008): 284-296.
- Tiwari, Reena, Marina Lommerse, and Dianne Smith, eds. *M2 models and methodologies for community engagement*. Singapore: Springer, 2014.
- Toker, Zeynep. "Recent trends in community design: the eminence of participation." *Design Studies* 28, no. 3 (2007): 309-323.
- Trott, Carlie, Andrea Weinberg, and Laura Sample McMeeking. "Prefiguring sustainability through participatory action research experiences for undergraduates: Reflections and recommendations for student development." *Sustainability* 10, no. 9 (2018): 3332.
- Van den Akker, Jan, Koeno Gravemeijer, Susan McKenney, and Nienke Nieveen, eds. *Educational design research*. Routledge, 2006.
- Van den Brink, Adri, and Diedrich Bruns. "Strategies for enhancing landscape architecture research." *Landscape Research* 39, no. 1 (2014): 7-20.
- Walker, Decker. "Toward productive design studies." In *Educational design research*, pp. 20-26. Routledge, 2006.
- Winkler, Tanja. "At the coalface: Community–university engagements and planning education." *Journal of Planning Education and Research* 33, no. 2 (2013): 215-227.