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Dilemmas of general planning education

Empirical bases for curriculum development in boundary discipline of planning

Lukas Gilliard[1*], Alain Thierstein[2]

[1-2]*Chair of Urban Development,TUM Department of Architecture, Munich University of Technology, Germany*

[*]*l.gilliard@tum.de*

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Problem

In our on-going research about the future of planning education, we defined planning as a boundary discipline (Gilliard & Thierstein 2015). Boundary disciplines are different from other scientific disciplines. While most sciences isolate and study the relation between a limited amount of factors separating the world small comprehensible chunks, boundary disciplines synthesise by combining knowledge from multiple fields. Hence, planning education goes along with many challenges, first and foremost the conflict between task complexity and time constraints. The relational complexity of urban planning already requires a diverse set of competencies (Healey 2004: 542). In addition, the selected set of competencies needs to be feasible to acquire within a given educational time frame, in demand at time of graduation and able to prepare students for future challenges.

We suppose that educators deal with this challenge in two different ways: normativity and specialisation. Both strategies share their effort in reducing complexity in order to fit the necessary competencies into the limited frame of time available for bachelor's and master's programmes.

Firstly, schools offer comprehensive programmes reducing the complexity by focussing on normative concepts. While students touch upon each relevant field, each insight remains superficial. Developing analysis, plans and policies therefore largely bases upon principles and overarching concepts. Other thinkers have synthesised

knowledge from different fields in similar projects before and the task of planning is reduced to a task of transferring and adapting existing concepts. Healey (2012: 190) reflects critically on this practice and argues, that concepts and ideas cannot simply "be extracted from its context of invention, uprooted and 'planted' somewhere else." Her argumentation goes back to Rittel & Webber's (1973) thought of wicked problems. Hence, a unique feature of synthesised knowledge in boundary disciplines is that it cannot claim universal validity – neither over time nor across varying places. It is rather "localised, embedded and invested in practice" (Weber & Khademian 2008). Thus, planners need to invent case-specific plans and policies onsite and in time (Alaily-Mattar, Thierstein & Förster 2013: 8). Studies about innovation show that the development of case-specific new knowledge mainly relies on the latest existing knowledge (Young 2013: 107; Bentlage 2014: 25). While the approach of normativity comprises a multi-disciplinary perspective and fulfils current formal qualification requirements, it fails to deliver the required base of knowledge for future challenges.

Secondly, schools offer specialised programmes reducing the complexity of planning by limiting its extent thematically. Students go into greater detail, however restricted to certain aspects. The downside of such an approach is obvious. Students are methodologically and thematically limited to their field of expertise. While innovation in a singular field might be enabled, the required integration of various knowledge across disciplines, locations and time seems to be further out of reach. Nevertheless, planning education has undergone rapid diversification over the last decades with the introduction of many specialised programmes (Frank & Kurth 2010: 30). Kunzmann (2008: 17) observes an emerging pick-and-choose mentality on the postgraduate level and a degradation of qualification standards in planning.

Objective

Planning education finds itself in a dilemma. Many scholars seem to be unsatisfied with the current state of planning education. While some demand refocusing on its allegedly architectural roots (Höing et al. 2014), others embrace the broadness of planning (Altrock et al 2014). The study's objective is to verify the fact that both routes of education are taken. Our goal is to establish a transparent synopsis on how we educate planners today. Based upon this analysis, we want to be able to

assess the feasibility of curricula, the current employability measured by acquired competencies and the potential capacity for dealing with future challenges. Ultimately, our study shall serve as a foundation to improve planning education.

Methodology

In order to validate our hypotheses, the paper bases upon a curricular analysis of under- and postgraduate degrees preparing for planning practice. The study consists of programmes – established ones and those new ones described above – in German- and English-speaking countries across Europe. We confine our analysis to Europe mitigating cultural and economic differences but incorporating planning systems based on preordained regulations such as in Continental Europe and discretionary planning systems such as in the UK (Booth 1995: 103). This distinction goes hand in hand with the traditions of common and civil law (Norton & Bieri 2014: 3). The selection of individual cases bases upon a network analysis categorising planning degrees into four interlinked groups: planning as social sciences, as engineering or architecture, as an independent discipline or as an interdisciplinary field (Gilliard & Thierstein 2015: Figure 2). We utilise competence-based module descriptions according to standards of the European Higher Education Area (EHEA) evaluating stated learning objective of each course module. The data allows to trace back different educational biographies and categorise graduates by obtained competencies. The competency term binds the academic and the employment world (Tchibozo 2010). It makes the educational output furthermore translatable into the input of knowledge for employers.

Main Results

The empirical results confirm our hypotheses, that planning education is a diversified field of study programmes with different disciplinary emphases and traditions. It furthermore shows that established normative planning degrees generally teach a wider range of knowledge. Regardless of the programme's emphasis, studio courses almost always play a central role encompassing up to 50% of the curriculum. The learning objectives are however insufficiently documented in case of project and design work. Predominant goal seems to be the acquirement of synthesising skills by learning-by-doing – a supposition, which can be backed by literature regarding studio

and problem-based learning (Van Dooren, Rooij & Willekens 2014). Surprisingly, the integration of different disciplinary knowledge is mainly limited to these studio courses with the exception of normative planning-specific theory and history course. There seems to be generally limited considerations regarding the methodology of synthesising.

Contribution

The paper offers an objective methodology for evaluating the output of university degrees. It provides insight into the diversifying field of planning with detailed listings of acquired competencies per programme. Educators are able to evaluate their own programmes in comparison to others and employers understand better the diverse knowledge and skills graduates bring along. Most importantly, the presented approach enables developing new programmes on the basis of competency-based employability measures. It serves as a foundation for an integrated view of planning in education and in practice. It also highlights some above-mentioned key observation, which might lead to new educational approaches.

References

- Alaily-Mattar, Nadia, Alain Thierstein and Agnes Förster (2013): Alternative Futures, a methodology for integrated sustainability considerations, the case of Nuremberg West, Germany. In: Local Environment: The International Journal of Justice and Sustainability. Online first. DOI: 10.1080/13549839.2013.841135
- Altrock, Uwe, Frauke Burgdorff, Carl Fingerhuth, Andreas Fritzen, Anne Klasen-Habeney, Ingrid Krau, Maren Harnack, Detlef Kurth, Angela Million, Reiner Nagel, Philipp Oswalt, Klaus Overmeyer, Elke Pahl-Weber, Martin Prominski, Christa Reicher, Stefan Rettich, Iris Reuther, Tim Rieniets, Brigitte Schmelzer, Alexander Schmidt, Christina Simon-Philipp, Albert Speer, Jörg Stollmann, Hilmar von Lojewski, Michael Zirbel and Martin zur Nedden (2014): 100% Stadt - Positionspapier zum Städtebau und zur Städtebauausbildung. Online first. http://www.bauwelt.de/cms/artikel.html?id=14234725.
- Bentlage, Michael (2014): The multi-dimensional knowledge economy in Germany. Knowledge creation and spatial development. publication based dissertation,

Faculty of Architecture. München: Technische Universität München. https://mediatum.ub.tum.de/node?id=1200866, Retrieved 03.09.2014.

- Booth, Philip (1995): Zoing or Discretionary Action: Certainty and Responsiveness in Implementing Planning Policy. In: Journal of Planning Education and Research 14(2), 103-112.
- Frank, Andrea I. and Detlef Kurth (2010): Planning Education in Germany: Impact of the Bologna Agreement. In: disP - The Planning Review 46(182), 25-35.
- Gilliard, Lukas and Alain Thierstein (2015): Competencies revisited. An educational approach to conceptualise planning as a boundary discipline. In: Proceedings of the 29th Annual AESOP 2015 Congress, 308-322.
- Healey, Patsy (2004): Relational Complexity and the Imaginative Power of Strategic Spatial Planning. In: European Planning Studies 14(4), 525-546.
- Healey, Patsy (2012): The universal and the contingent: Some reflections on the transnational flow of planning ideas and practices. In: Planning Theory 11(2), 188-207.
- Höing, Franz-Josef, Christoph Mäckler, Markus Neppl, Franz Pesch, Wolfgang Sonne, Ingemar Vollenweider, Kunibert Wachten, Jörn Walter and Peter Zlonicky (2014): Die Stadt zuerst! Kölner Erklärung zur Städtebau-Ausbildung. online first. http://www.bauwelt.de/cms/artikel.html?id=14234729 [German].
- Kunzmann, Klaus R. (2008): Die Bologna Beschlüsse und die möglichen Konsequenzen für die Ausbildung von Raumplanern in Deutschland. In: Raumforschung und Raumordnung 66(6), 13-22.
- Norton, Richard K. and David S. Bieri (2014): Planning, Law and Property Rights: A US-European Cross-national Contemplation. In: International Planning Studies, 1-19.
- Rittel, Horst W. J. and Melvin M. Webber (1973): Dilemmas in a General Theory of Planning. In: Policy Sciences 1973(3), 155-169.
- Tchibozo, Guy (2010): Emergence and outlook of competence-based education in European education systems: an overview. In: Education, Knowledge and Economy 4(3), 193-205.

- Van Dooren, Elise, Remon Rooij and Luc Willekens (2014): Urban and Regional Design Education: Making the Design Process Explicit. In: Proceeding of the 28th Annual AESOP 2014 Congress. http://repository.tudelft.nl/view/ir/uuid%3A9ba846a7-adf6-4a54-826a-e5de0ddac68b/, Retrieved 19.10.2015.
- Weber, Edward P. and Anne M. Khademian (2008): Wicked Problems, Knowledge Challenges, and Collaborative Capacity Builders in Network Settings. In: Public Administration Review 68(2), 334-349.
- Young, Michael (2013): Overcoming the crisis in curriculum theory: a knowledge-based approach. In: Journal of Curriculum Studies 45(2), 101-118.