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Service-Learning and Pre-Service Teacher Education: A Case Example from Geography

Abstract

Our workshop report describes the implementation of service-learning in a “Spatial Socialization and School” project module in geography teacher education at Goethe University Frankfurt. The goal is to create a learning setting in cooperation with educational and municipal institutions in Frankfurt am Main that allows pre-service teacher students to engage in authentic, situational learning with children and adolescents. Our accompanying action research shows an increase in the students’ content knowledge, pedagogical knowledge and social-spatial awareness. Thus, we argue that service-learning is a suitable strategy for geographic learning in relation to society and civic participation.

Keywords

Service-Learning, Geography, Pre-Service Teacher Education, Spatial Socialization

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1 Initial situation

Our article is concerned with the topic of service-learning (SL) within the context of geography teacher education in Germany. Since 2016, we have been working towards redesigning the “Spatial Socialization and School” project module for the pre-service geography teacher education at Goethe University Frankfurt. Our goal is to modify a conventional university semester approach to create a learning environment that provides prospective geography teachers with the qualifications to analyse and evaluate the social-spatial development of pupils. Opportunities for authentic and situational learning are developed in cooperation with educational, social and municipal institutions in Frankfurt am Main.

The focus of our work is on implementing academic SL derived from the US tradition of experiential learning (J. Dewey, D.A. Kolb). In anglophone countries, SL is commonly seen as a learning opportunity offered by educational institutions as a means of effectively integrating organized community service, enhanced academic learning and students’ self-reflection into the curriculum to foster students to actively assume civic and societal responsibility². Alongside numerous SL definitions, MITCHELL (2008, p. 50) states that SL is “a pedagogy and practice” that integrates “a community service action tied to learning goals and ongoing reflection about the experience”. With regard to contemporary approaches of constructivist teaching and learning, our work follows the perception of SL as a method of higher education didactics in which practically involving students in social engagement ideally fosters advanced professional and personal-effective learning (REINDERS, 2016).

Besides providing opportunities for academic teaching and learning, SL is a worthwhile undertaking at the institutional level since it aims at increasing the social orientation of the educational system and academia (BACKHAUS-MAUL & ROTH, 2013). That is, from a higher education policy point of view, SL can

² For example, see <https://compact.org/initiatives/service-learning/>

strengthen the presence of universities within society through its commitment to the civic environment. Especially in the area of teacher education, project work within the context of social commitment “outside the lecture hall” serves as vocational field orientation that further develops the professional action competences of prospective teachers.

Against this background, we intend to create an innovative form of competence-oriented learning in the area of geography teacher education in German universities by integrating students’ theoretical and practical learning into work experience gained while interacting with different local community actors. In accordance with ALTENSCHMIDT & MILLER (2016), our project therefore contributes to the Third Mission of the Goethe University Frankfurt³: encouraging the active cooperation and social engagement with civil society stakeholders in education and culture, business and politics.

2 Service-learning in geography

In fact, the integration of SL into higher education teaching and learning has attracted increasing interest within different academic disciplines in the last decade in Germany (BACKHAUS-MAUL & ROTH, 2013)⁴. Nevertheless, THÖNNESSEN (2015) states that the SL approach has so far been disregarded in schools as well as in universities in the context of geographic education in Germany. In contrast, in anglophone geographic higher education, there is a wider discourse on the adaptation of SL within the fields of human environments and natural environments. The main application areas of SL are related to collecting and providing geospatial information, for example, in projects of participatory geographic infor-

³ See <https://www.uni-frankfurt.de/62841207/third-mission>

⁴ Also compare the university network <http://www.bildung-durch-verantwortung.de/>

mation systems (PGIS), volunteered geographic information (VGI) and citizen science (CS; SINTON, 2012). Furthermore, SL as community-university partnerships is employed to deal with social inequality in marginalized urban areas in the context of critical urban geography (ALLAHWALA et al., 2013). Such a critical SL approach “encourage[s] students to see themselves as agents of social change, and use the experience of service to address and respond to injustice in communities” (MITCHELL, 2008, p. 51).

Along with employing the traditional SL approach as outlined in Section 1, we redesigned our project module “Spatial Socialization and School” keeping in mind this critical interpretation of SL which “demands a social change orientation, working to redistribute power, and developing authentic relationships as central to the classroom and community experience” (MITCHELL, 2008, p. 52). In this context, we seek to establish community-university partnerships in the city of Frankfurt am Main to encourage geography teacher students to critically engage in (social-)spatial planning issues while actively acquiring professional knowledge of spatial socialization processes. Although the realization of a “specific need” on the community level is of minor importance for us, we benefit from SL due to its intentional interplay of theory and practice to promote the experience-based learning of academic content incorporating the three core didactic principles⁵ of SL:

- “Reference to reality: SL projects have to be carried out in real life and must meet the real needs of the community instead of remaining in the artificial learning setting of a school or university.
- Reciprocity: students and cooperative partners and institutions are mutually dependent; they learn from each other and respond to their mutual needs.

⁵ See REINDERS (2016, pp. 23ff.) for further information on SL quality standards as well as on different types of SL offerings with variable emphasis on either the service and/or the learning components.

- Reflection: students have sufficient time and pedagogic guidance to reflect on the relationship between academic theory and actual life practice” (own translation from REINDERS 2016, p. 27).

3 Redesign of the project module “Spatial Socialization and School”

3.1 Thematic aspects

The two-semester-long, compulsory project module aims at fostering prospective geography teachers’ comprehension of social-spatial perception and construction as well as the physical acquisition of urban spaces by children and adolescents, taking into account the ongoing digital mediatization of our society. Besides learning the relevant content knowledge in the field of geography, students have to be enabled to recognize and evaluate social-spatial influences on pedagogical, technical and organizational teaching knowledge. In this context, the module focuses on two major questions:

- To what extent do digital geomedial⁶ influence the living environment and spatial socialization processes of children and adolescents?
- Which competences regarding reflexive digital geomedial use have to be developed among prospective teachers as well as pupils?

As a spatial study area, the Ostend district of Frankfurt am Main was chosen due to its dynamic gentrification process in the course of urban policy strategies since the 2000s (MÖSGEN & SCHIPPER, 2017). Although this module is not a scientific research project, it is for this reason that one can find here a number of “worth-

⁶ Digital geomedial integrate various forms of Web2.0-based spatial representations, such as digital maps in social media (e.g. GoogleMaps, Yelp) and GPS-based mobile apps.

while problems” of socio-spatial divergences of a pluralistic urban society for triggering the learning process.

3.2 Curricular framework and former module structure

The project module is offered in the discipline of geography teaching for secondary school and lower secondary education in the university students’ last academic year. In each year, approximately 50 students complete the module in two parallel runs. As illustrated in Figure 1, the module integrates three consecutive courses in the course of the winter term and the summer term with a total of 12 European Credit Transfer and Accumulation System (ECTS) credits and 7 weekly lecture hours.

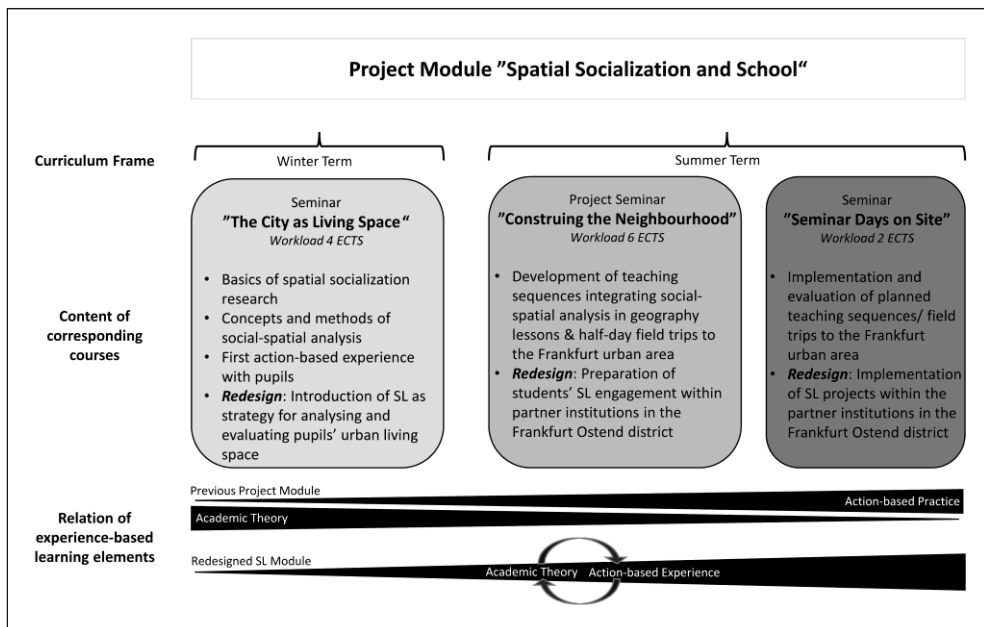


Figure 1: Allocation of the module’s curricular components, its previous contents and redesigned SL contents. (Authors’ sketch)

In the first phase of the module (winter term), the basic contents and methods for conducting a social-spatial analysis of the pupils' living spaces had been taught within a conventional seminar framework in which the students prepare presentations and hand in manuscripts for assessment. In the second phase of the module (summer term), the students had to practice integrating the contents and methods of social-spatial analysis into geography lessons. For that purpose, they had to develop teaching sequences incorporating half-day field trips to a certain city district of Frankfurt am Main, in order to activate the pupils' reasoning about their daily living spaces. Related topics included, for example, exercises on spatial orientation in urban spaces, explorations of school surroundings by means of map-based activities and geocaching and the digital mapping of pupils' haunts and avoided district places. Finally, in the third module's phase, these teaching sequences were carried out in the Frankfurt am Main urban area. Although students had to perform in an authentic learning environment outside the lecture room, this course activity took place without the involvement of pupils.

3.3 Implementation of the service-learning approach

Considering the thematic and curricular aspects outlined so far, the project module's redesign in terms of SL integration is based on four strategic goals:

- **Teaching level:** Connecting geographical learning, societal relations and civic participation in academic teaching processes.
- **Learning level:** Increasing the proportion of experience-based learning (i.e. action and reflection) in the pedagogical practice of geographical education and prospective-teacher education.
- **Organizational level:** Implementing SL as a basic element of geography teacher education at Goethe University Frankfurt.
- **Research level:** Evaluating the challenges and effects of SL on geographic higher education teaching.

3.3.1 Development of the service-learning conception

The current integration of SL into the project module is based on the students' conceptions from the first altered module from 2016/2017. Among others, this includes phrasing expectations and goals addressing the SL engagement on the district level of Frankfurt Ostend (i.e. service analysis), exploring suitable methodological approaches for implementing and evaluating social-spatial analysis as well as contacting possible cooperation partners and public interest groups to ask the partners and groups to join the offered SL initiative:

- Our **SL idea** is to jointly explore and map Frankfurt am Main Ostend from the perspective of children and adolescents to capture their everyday living spaces. In doing so, we collect social-spatial data that help municipal and social institutions to better comprehend the Ostend district as a living environment for children and youth.
- **Service aspect:** As “service agents”, we offer children and adolescents the opportunity to explore and rediscover “their” district by means of doing geographical research in order to articulate and to communicate their own social-spatial needs and spatial conflicts to public stakeholders and decision-makers. As “service receivers”, educational and social institutions get a well-designed pedagogical offering in which reliable socio-spatial data are collected and made available to interested third parties.
- **Learning aspect:** For us, joint learning with children and adolescents is a means of actively acquiring knowledge, skills and abilities for analysing and evaluating pupils' social-spatial needs as part of a future teaching profession. Therefore, we examine inquiry-based learning *with* children and adolescents instead of doing pedagogical research *about* their social-spatial development.

Figure 2 illustrates the configuration of the SL players as mentioned in the SL offering by the module's participants from 2016/2017.

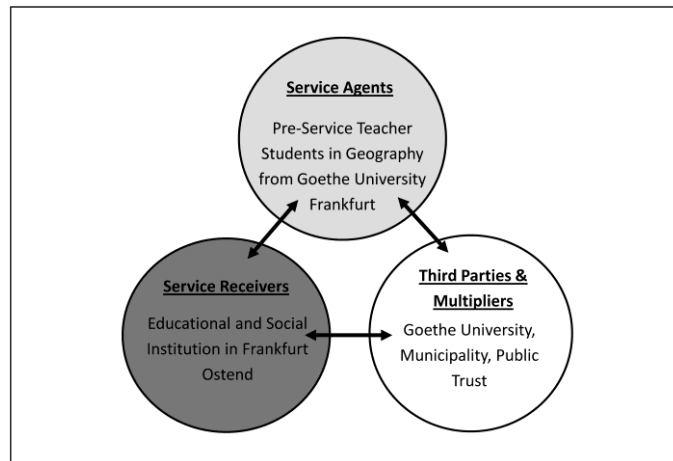


Figure 2: The configuration of the SL actors (Authors' sketch)

In the following, we present essential aspects of the integration of SL components into the separate module phases of the winter term and summer term, as realized so far.

3.3.2 Service-learning aspects of the winter term

The seminar “The City as Living Space” (see Fig. 1) still fosters students’ acquisition of basic theories and concepts in spatial socialization research. However, the seminar’s new syllabus follows the principle of experience-based learning through consistently pairing the examination of the subject-specific content knowledge with a practical encounter of the respective learning subject. Some short examples will illustrate this new form of practical experience.

- Students have to prepare seminar units (90 minutes) including input, working and reflection phases to serve the action-oriented elaboration of relevant content knowledge. The units’ contents either must be linked to students’ personal spatial socialization experiences or must contain a specific connection to the city district Frankfurt Ostend.

- The students' change of perspective towards the "everyday urban space" as social action space for children and youth is realized through tracing and analysing prototypical whereabouts in Frankfurt Ostend as part of a map-based photo documentation in the course of a self-organized field trip to the district. Subsequently, students have to compare their results with additional findings from a hashtag analysis to work on the media-based construction of Frankfurt urban space (REITHMEIER et al., 2016).
- Finally, aspects of participation in urban planning processes by means of digital geomeia use are introduced in the light of the education concept spatial citizenship (cf. SCHULZE, GRYL, & KANWISCHER, 2015). On the basis of the lesson unit "My City – My Life" by POKRAKA (2015), the students arrange to have pupils (ages 10 to 12 years) visit the seminar from a partner secondary school.

3.3.3 Service-learning aspects of the summer term

The module phase in the summer term is fully dedicated to students' working with the newly acquired partner institutions in Frankfurt am Main Ostend, namely, secondary schools and youth centres. The courses of the summer term (see Fig. 1) are interrelated in terms of content and time to allow for the implementation of small group-based projects and action phases at the partner institutions and to allow time for the accompanying coaching and reflection phases within the seminar at university. Hence, working within the partner institutions is divided into two stages:

Stage 1: On at least four dates, the students meet with the involved partner institutions to cooperatively prepare a project work (see Stage 2). These meetings present students with the opportunities

- to get to know the partner institution, gain insights into daily (teaching) routines and conditions and discuss the relevant "service needs",
- to start working with the involved pupils or youth groups to perceive subject-specific and pedagogical predispositions, and

- to arrange conceptions of the project week, i.e. contents, methods, (geo-) media use, etc.

Stage 2: The students and the involved pupils or youth groups jointly develop small group projects (3 to 4 days) that deal with different aspects of the social-spatial analysis of the living environments and school surroundings. The main content-based and pedagogical principles are that

- the teaching and learning follow the inquiry-based learning approach in combination with out-of-school working at the local district level;
- the learning outcomes and contents of the individual projects are oriented towards the social-spatial interests of the involved pupils and youth groups and may address geographical, environmental, social and political problems;
- and the projects seek to collect social-spatial data based on simple, but worthwhile “research questions”, for example, on the quality of the favourite and avoided whereabouts in public spaces or on environmental topics (e.g. traffic, waste) using methods such as (digital) pin mapping, mobile mapping, reflective photography and short surveys.

4 Discussion and prospects

Our accompanying action research⁷ of the first run of the SL project module shows that SL is a teaching form that facilitates the connection of vital geographic learning in relation to civic participation. For example, the majority of the students reported an increase in content knowledge as well as in technical and pedagogical skills compared to a traditional university course. Furthermore, they reported gaining new perceptions towards the daily social-spatial actions of children and adoles-

⁷ That is, group discussions at the end of the winter term (*t1*) and the summer term (*t2*), a follow-up online survey (*t3*) and portfolio analysis ($n = 27$).

cents and that pupils' participation in urban planning processes can effectively be encouraged through the integration of SL into geography lessons.

Despite these positive aspects, there are of course some challenges facing the future realization of our SL project, especially regarding the didactical principles of SL. Although students positively acknowledged the projects' "relation to reality", they perceived them as too constructed in the sense of an "artificial learning setting at university" (REINDERS, 2016). In order to meet the claim of real "reciprocity" of our service offering and to come to achieve mutually reliable and vocationally oriented cooperation in the future, we need to focus even more on the needs of our cooperation partners as well as on the students' interests in participating in a certain project work from the very beginning. Finally, the challenge is to systematically work on the "reflection" procedure during the individual phases of our SL project module. In addition to the already integrated reflection tools (portfolio, group discussion), we will therefore implement Reinders' and Hillersheim's five phase model of reflection to effectively support the professional learning process (ibid.).

Admittedly, addressing the outlined aspects will require greater effort than that for the already described preparation of the SL environment, such as for needs analysis, increased communication with the involved actors, and flexibility in organizing course contents and materials. Nevertheless, we believe that further enhancing our SL environment during the next runs of the project seminar will serve the goal of shifting from the content-centred imparting of subject-specific teacher knowledge towards constructing the experiential knowledge and pedagogical expertise of prospective teacher students as part of our curricular practice.

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