



EduSpaceMobile – South Tyrol's next role model for multidirectional exchange of educational knowledge

EduSpaceMobile – il futuro modello bandiera dell'Alto Adige per lo scambio multidirezionale di conoscenze educative

Susanne Schumacher

Libera Università di Bolzano – susanne.schumacher@unibz.it

ABSTRACT

Ecology, in the broadest sense, is an interrelation. For individuals as well as for social communities, this implies that they are always both subjects of perception and objects of a communal determination of reality (cf. Benner 1990, p. 614ff.). The reflected contemplation of the individual's relationship to himself, to others and to the world is a central element of the courses and practical training of the Master's programme in Educational Science. In particular, the current activities of the EduSpace learning workshop are strongly influenced by the joint reflection on ecology as a condition and goal of education in the first stages of life as well as across the entire lifespan (cf. in detail Stadler-Altman 2018; Dozza 2021). How these interdependencies can be elaborated into sustainable regional learning communities is outlined in the following.

L'ecologia, nel senso più ampio, è un'interrelazione. Per gli individui altrettanto per le comunità sociali, ciò implica che essi sono sempre entrambi soggetti di percezione e oggetti di una determinazione comunitaria della realtà (cfr. Benner 1990, p. 614 ss.). La discussione riflessiva sulla relazione dell'uomo con sé stesso, con gli altri e con il mondo è un elemento centrale delle lezioni, dei laboratori e dei tirocini nel programma del Master of Science in Education. In particolare, le attività attuali del laboratorio di apprendimento EduSpace¹ sono fortemente influenzate dal pensiero comune sull'ecologia come condizione e scopo dell'educazione nelle prime fasi della vita così come durante tutto l'arco della vita (Stadler-Altman 2018; Dozza 2021). Il contributo spiega come queste interdipendenze possono coadiuvare alla costruzione di comunità di apprendimento regionali sostenibili.

KEYWORDS

Multidirectional Exchange of Knowledge, Learning Communities, Ecology as an Educational Issue, Eduspace Mobile, Professionalization Of Educators. Scambio Multidirezionale di Conoscenze, Comunità di Apprendimento, Ecologia come Questione Educativa, Eduspace Mobile, Professionalizzazione degli Educatori.

1 Le idee e le spiegazioni per l'attuale concetto didattico sono state sviluppate principalmente da Ulrike Stadler-Altman, che è stata la responsabile del progetto dell'EduSpace Learning Lab dal 2015.

1. Key areas of professional thinking and reflected practicing at university

The educational study programme at the Free University of Bozen-Bolzano (unibz) have been reformed lately in the academic year 2017/18 and is now provided as a one-level Master for both primary school (PS) teachers and educational specialists for kindergarten (KG). After restructuring the internship regulations in the academic year 2019/20, the content coordination of courses and internship stages is currently being intensified.

1.1 Seminars and Internships

From the educational theory perspective, it is vital to achieve a scientifically based professionalization. However, the internships aim to familiarise students with their professional role (cf. Kunter 2011; Resolution No. 742). Facing the two different positions, communication difficulties are predestined.

One approach to effective collaboration is didactics. As an applied science, its task is to reflect research results -which are summarised in didactic theories- on practice. Regarding this reflection work as a transformation process, at least two steps ought to be worked out. In a first step, complexity of theory is portrayed in a Model. In a second step, criteria displayed in the model are illustrated by developing explicit scenarios. Understanding the model and composing the concept are content-related intersection between lectures and practical training in internships. Therefore, it is crucial that both working units within the university are at an appropriate level of pedagogical knowledge and linguistically use equally defined terms.

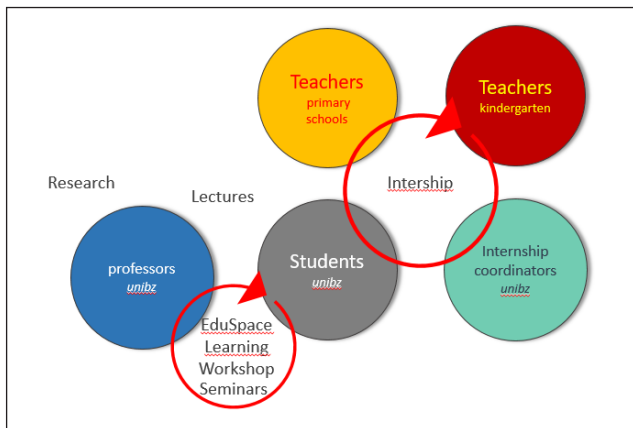


Figure 1. Theory-to-practice transformation cycle at university

The organisational structure of the study programme is that each internship phase is assigned to an academic year. The direct internship (see tab. 1, a) takes place in the educational institutions of the primary sector. The preparation, interim reflection and follow-ups are carried out within the framework of the indirect internship (see tab. 1, b).

Table 1 Overview of the temporal range and the respective focal points of the internship

Academic year	Focus
1.	General orientation a) 30 hrs. each in KG+ PS, b) 40 hrs.
2.	Getting to know different educational landscapes, job shadowing + excursion a) 15 hrs. each in KG + PS +10 hrs. other, b) 70 hrs.
3.	Constructing educational processes with children a) 75 hrs. each in KG + PS, b) 30 hrs.
4.	Accompanying initiatives, projects as learning opportunities a) 40 hrs. in KG / PS, b) 70 hrs.
5.	Professionalisation of pedagogical action a) 170 hrs. each in KG + PS, b) 30 hrs. indirect internship

1.2 *EduSpaces and EduSpace Learning Workshop*

The question of how academic knowledge and professional practice application can merge is to be researched and worked on with the project EduSpaces. Starting points are the four sub-projects. The academic team of MultiLab is engaged in scientific disciplines corresponding to school subjects but do also research in new media didactics or in intercultural topics. Teaching and learning situations within the study programme adopt techniques that are coherent with both the syntax of the object and an active approach by participants. The Cognitive and Educational Sciences Laboratory is aimed at bringing together research on cognitive processes and education to establish a link between the two disciplines. The CESLab employs several methods for example behavioral and computerized testing or eye-tracking inspection. Main goal of FDZ consists in the documentation and research of South Tyrol's educational history, such as the cheat sheet collection. The EduSpace Learning Workshop supports students spatially and materially in practicing the transfer of theory to practice through exploratory learning (Wiater 2000, Stadler-Altman 2018). The didactic aim of all activities in EduSpace Learning Workshop is to provide training that is effective in terms of learning as well as knowledge transition. Seminars and internship are enabling social spaces in which students can develop projects for the duration of courses (see fig. 1, right hand side) and test them subsequently in the internships. Based on its pedagogical ethos, the EduSpace Learning Workshop offers a practical orientation for distributing professionalism covering pedagogical principles.

In the first year of the master programme, the EduSpace learning workshop is mainly used in the winter semester to prepare the internships, since the first practice-training phase is scheduled for the following spring. The didactic setting provides for the students to prepare posters on the key terms discussed in the General Didactics lecture and to implement them solely graphically. The graphic implementation challenges the students to visualise the contents as well as the meaning of the terms again. This enables the implementation of knowledge through feedback loops. Fellow students should understand the graphics the

without further explanatory texts. This stage is followed by the students' presentation of results including the discussion on conceptual understandings. In the second year of study, the lecture General Didactics concerns with approaches and results of empirical teaching-learning research. The question of what successfully enhances teaching-learning situations and how multimodal teaching-learning materials can be developed for heterogeneous groups is consequently the focus of activities in the laboratories (Schumacher, Emili, & Stadler-Altman 2019). In doing so, basic concepts are repeated. Moreover, methods of teaching as well as strategies of learning for competence-oriented planning and design of holistic teaching-learning processes are practised. The personalisation of learning takes place in dialogues as a joint interpretation of knowledge in self- and external evaluation within the entire learning group (Schratz & Westfall 2010).

2. Key areas of professional thinking and reflected practicing inside out of university

Considering education and information with Kuhlen (2014, 68) as commons, both is about meaningful, individual, social, and cultural development as well as political co-determination and the sustainable use of resources to ensure (economic) well-being in particular regarding the upcoming generations. Education that claims to be sustainable and persistent development is based on specific beliefs and images of humanity, which are mainly governed by narratives (Wiesner & Prieler 2020). Depending on the awareness of a common living space, ideas and conceptions are being discursively differentiated in social spaces constructing solutions for current problems.

2.1 *EduSpace Mobile project*

The project intends to emphasise the rollout of pedagogical interaction to foster both a subject-didactic orientation and a stronger structural connection to the practical courses. The main aim is to promote the linking of contents, or more precisely, to strengthen the transfer between knowledge stocks of academic training on the one hand and practical experiences on the other hand. Therefore, it is essential that individuals critically reflect on their implication perspectives to make sense of challenging experiences (Illeris 2017). According to Mezirow (2000), transformative learning is necessary to facilitate individuals' adaption to environmental changes and actively participate in processes of change. Improved feedback of students' practical experience to university teaching can help them manage their transition to the world of work more successfully as Arnold (2011) points out.

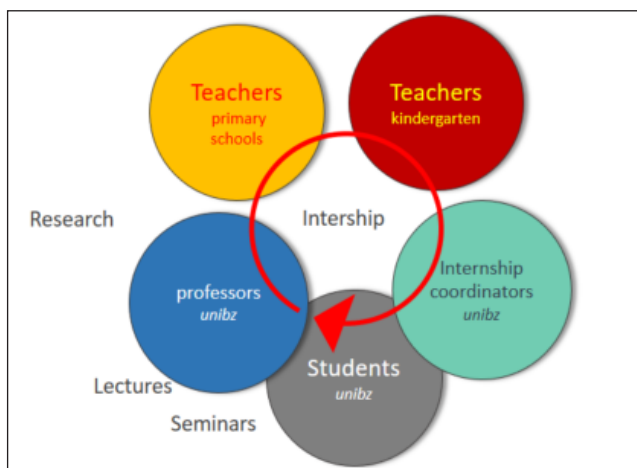


Figure 2. Multidirectional and recursive exchange of knowledge within the municipal learning community

The EduSpace Mobile is potentially suited to have an immediate and thus more sustainable effect than the individual conceptual elements of teacher training through the multidirectional and recursive exchange of knowledge (see fig. 3). In parallel, learning support is didactically devised as well as institutionally anchored. Accordingly, this can be a suitable solution strategy for competence development in initial and in-service teacher training (cf. Schumacher et al. 2020).

2.2 *Municipal learning community*

A (habitat) pedagogy for context-sensitive and authentic development requires a critical and emancipative reflexivity of worldviews. The complex references to world and life require a deeper understanding of an expanded present that becomes obvious in pedagogical interaction and across lifespan.

However, lifelong learning obliges changes even at the organisational level in the education sector. New cooperative organisational and institutional structures need to be formed on the one hand, and on the other hand, institutional development has to be fostered, that addresses optimisations of the internal processes and procedures. EduSpace Mobile activates players in various functions and areas of the education system. This in turn can be the starting point for their interaction in periodic learning communities or educational partnerships (Dozza & Ellerani 2020). The successful transition of knowledge by means of the EduSpace Mobile is to be determined and qualitatively discussed conducting interviews and quantitatively empirically by means of an implementation index².

2 Including the professional exchange within the team and the transfer of expertise, the process quality within the institution, the influence of the facility management as well as the temporal and structural framework conditions.

3. Expected benefits for the municipal learning community

To record and use the special knowledge of the respective subsystems in the education sector for the introduction of the EduSpace Mobile, the method of expert and stakeholder involvement in the form of individual interviews (Meuser & Nagel 2009, p. 470) is suitable. As a result, the factual and process knowledge but also the forward-looking assessment or recommendation can be constructively interpreted and therefore lead to innovative ideas. (see Niederberger & Wassermann 2015). The number of experts depends on the fields of action in the EduSpace Mobile project. Following the recommendation of Jäger (2009, p. 20), actors in high-level administrative positions should also be involved. Preliminary findings will be framed on the basis of a cross-impact analysis (Weimer-Jehle 2015, p. 243ff). The discursive method is an appropriate approach to gain insight into the architecture of interdependencies of complex and strongly interdisciplinary systems.

In informal dialogues with actors from the unbz internship office, the following aspects were assumed:

- The accessibility of remote regions was seen as a great advantage of the EduSpace Mobile.
- The role of the university would become clearer to kindergarten teachers, educators, and society.
- A further added value could be generated if the EduSpace Mobile were not only daily used but over a longer period on site.
- A general prerequisite for the successful implementation of the sub-project in the study programme should be that the workload for the internship coordinators should be as low as possible and should not exceed the assignment of students to suitable schools or kindergartens.
- Furthermore, the impact of the concept depends on the openness of the local kindergarten teachers. It was suggested that the project be started with interested volunteers and encouraged to recommend the project to colleagues.

In the factual dimension, the given feedback refers to the general orientation of the concept. In the social dimension, the experts' responses relate to the expected system behaviour in administrative matters and in building trust on the part of those responsible for action.

4. Conclusion

The Faculty of Education of the Free Universities of Bozen-Bolzano has the mandate to train teacher students and further educate in service teachers. Currently, the activities that take place in the framework of the internship primarily serve the practical training of the future teachers. With the low-threshold and outreach implementation of the EduSpace Mobile in cooperation with lecturers from the university, an in-house training for in service pedagogical staff could take place simultaneously.

Both emerging and consolidated pedagogues who take responsibility will be potent to affect their social environmental and advocate for more ecological awareness. It is already clear that the accessibility of remote regions can only be an advantage if the teachers on site confirm the didactic expected value of the EduSpace Mobile. Moreover, the concept needs a logistical solution for both a

mobile and short-term stationary custom. Experience has shown that priority is given to the necessity of a gradual and careful change of structures and procedures regarding the establishment and maintenance of an innovation-friendly interaction between trusted institutions and employees of institutions or work units (see Reavley 2013). In terms of transformative learning and learning organisations, institutional development, or social innovation (Howaldt 2011), the sustained support with the EduSpace Mobile is of vital importance.

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