

Proceedings Portfolio or project? – Involving university teachers in the research of their disciplinary teaching to enhance transfer

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ABSTRACT: Developing the links between university teaching and research is an exciting way of engaging university teachers in their learning process, as evidenced by supporters of the Scholarship of Teaching and Learning (SoTL). The development of teachers' capabilities in identifying and creating new pedagogical and discipline-based knowledge by doing research studies has been recognised as a priority and is therefore one of the goals of our faculty development activities at the Zürich University of Teacher Education (PH Zürich).

The Center for Teaching and Learning in Higher Education at PH Zürich delivers different programmes to teachers of universities of applied sciences. As part of the 10 ECTS, in the past 10 years over 400 participants have been developing a reflective portfolio in which they demonstrate a sound philosophy of teaching and learning as well as evidence competent teaching by compiling “artefacts” and reflections (Seldin, 1993; Bachmann, 2015). The main goal of the portfolio has been the reflective transfer of acquired competencies to the participants teaching practice.

In recent times, we have moved towards more disciplinary specific programmes for single university departments and implemented SoTL in the format of small-scale research studies (inquiry) replacing the portfolio. Inquiry is understood as an approach to learning, and a process which builds into participants' own teaching practice and course designs.

Based on the principles of good practice in SoTL (Felten, 2013; Trigwell et al., 2000), the objective of this contribution is to present the outcomes of a study aiming to compare the two concepts -portfolio and projects- through content analysis and a survey to participants of last year's programmes. For our content analysis we are developing a framework using a Critical Reflective Enquiry model (CREM) where we examine the components and scope of a critically reflective enquiry. The framework aims to further support the learning process of the teachers, assess and enhance their critical reflective enquiry skills.

1 INTRODUCTION

Developing the links between university teaching and research is an exciting way of engaging university teachers in their learning process, as evidenced by supporters of the Scholarship of Teaching and Learning (SoTL). “SoTL is a practice of critically reflective enquiry into particular aspects of our teaching, which we undertake with the ultimate purpose of supporting the important interests of students” (Kreber, 2015: 569). The development of teachers' capabilities in reflectively enquiring into the teaching and learning process and in identifying and creating new pedagogical and discipline-based knowledge by doing research studies has been recognised as a priority and is therefore one of the goals of our faculty development activities at the Zürich University of Teacher Education (PH Zürich).

The Center for Teaching and Learning in Higher Education at PH Zürich delivers different programmes to teachers of Universities of Applied Sciences. As part of the certificate course (Certificate of Advanced Studies CAS) in higher education consisting of 10 ECTS, in the past 10 years over 400 participants have been developing a reflective portfolio in which they demonstrate a sound philosophy of teaching and learning as well as evidence competent teaching by compiling “artefacts” and reflections (Seldin, 1993; Bachmann, 2015). The main goal of the portfolio has been the reflective transfer of acquired competencies to the participants' teaching practice.

Although participants still decide whether they approach their course work in form of portfolio or project, in recent times, we have moved towards more disciplinary specific programmes for single university departments and implemented SoTL in the format of small-scale research studies (or projects). In both cases reflection about the teaching and learning process, a learned skill involving complex critical thinking, is viewed as an essential component of the development of their professional practice as teachers.

With projects we assume to focus more on learning processes with a systematic critical examination of an ever-changing object of enquiry (Fanghanel, 2013). Beywl & Odermatt's (2016: 34) framework (Fig. 1) offers a structured approach to reflection which builds into academics' own teaching practice and course designs and is used as a reference to engage our participants in the process of enhancing teaching and enquiry when fulfilling their projects. This framework moves along five steps to build a bridge between teaching and enquiry. In a circular reflection process teaching interventions are tested and evaluated regarding their sustainability.

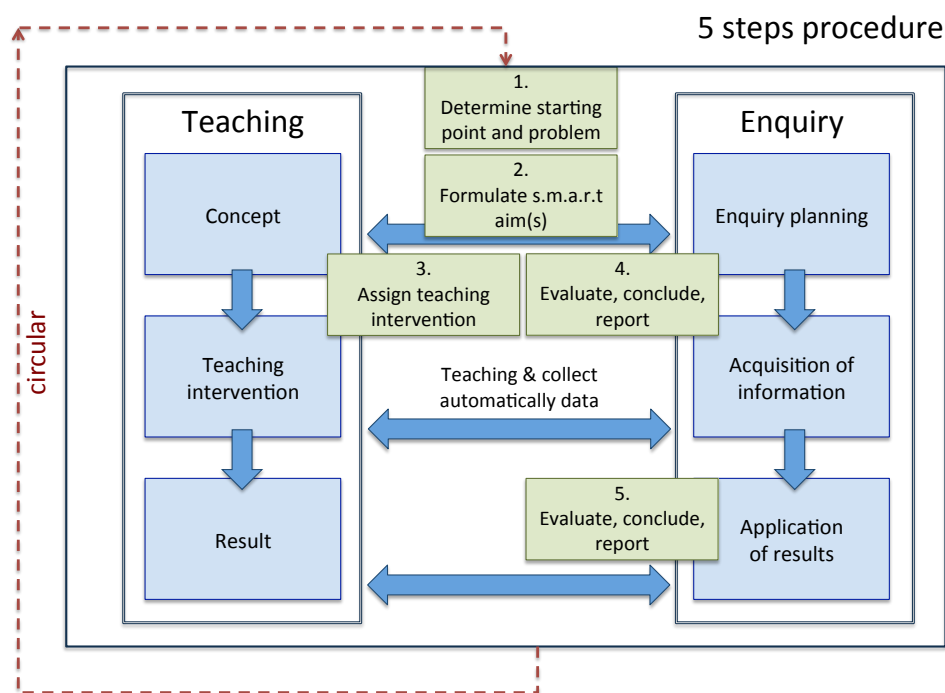


Fig. 1: The 5 steps procedure (Beywl & Odermatt, 2016)

Based on the principles of good practice in SoTL (Felten, 2013; Trigwell et al., 2000), the objective of this contribution is to present the outcomes of a study aiming to compare the two concepts: a teaching portfolio and a project. The used methods include a content analysis of the critical reflective enquiry of the participants' teaching practice that is implicit in both documents and a survey to participants of last year's programmes. The following are our study's key research questions:

- How and to what degree does the concept (portfolio or project) support the demonstration of a teaching philosophy aiming at students' active learning? Where and how is active learning visible?
- How and to what degree do participants demonstrate the implementation of teaching methods learned in the course?
- To what degree is it likely that the implementation will sustain? Are there reflections on the further development of the teaching and the implemented methods?

Several critical reflective enquiry models exist; however, there is limited research on the use of any one model in examining the critical reflective enquiry in teachers' teaching development. For our analysis we are developing a framework using a Critical Reflective Enquiry model (CREM). The framework aims to further support the learning process of the teachers, assess and enhance their critical reflective enquiry skills.

2 BUILDING THE CRITICAL REFLECTIVE ENQUIRY MODEL (CREM)

The model we are developing takes into account the following references:

2.1 The theoretical, practical and productive knowledge or three *virtues*

Kreber (2015) argues that the SoTL is supported by the intellectual virtues of “episteme” (theoretical knowledge/science and philosophy), “techne” (productive knowledge/activity) and “phronesis” (practical knowledge/activity): the theoretical, practical and productive knowledge or Aristotle’s three *virtues*. “The three virtues stand in a particular relationship to one another and phronesis assumes a vital mediating function infusing the scholarship of teaching with the practical wisdom required in concrete situations” (p.568). In fact, she shows that neither episteme nor techne are sufficient for SoTL; phronesis (practical wisdom) has emerged as essential to professional practice, however knowledge needed for professional practice is not exclusively grounded in the personal and collective experience of teachers. Therefore, theoretical knowledge (episteme) is of great value to professional practice but it can only be directly applied to practice by means of phronesis which allows us to transform the episteme into truly practical knowledge that guides our actions in specific contexts.

By adopting an enquiry-orientation, the knowledge base is extended. Such enquiry ensures that this knowledge is never taken for granted but instead is continuously re-examined (Kreber, 2015). SoTL and the standards of peer-review and going public strengthen enquiry and critical reflectivity.

In a teaching portfolio or in a small-scale research project it is expected that participants adopt an enquiry-orientation, a critical reflective enquiry approach to analysing their teaching and learning process. How can we analyse critical reflectivity in our participants’ portfolios and projects? How do we verify through the content analysis that: a) our participants’ teaching philosophy aims at students’ active learning? How do we assess the level of success in the implementation of a given teaching method or intervention? How do we value their account on the impact of the new intervention in the teaching quality and students’ learning? In order to do so, we need to distinguish the components and scope of the participants’ critical reflective enquiry.

2.2 The components and scope of a critical reflective enquiry

Critically reflective enquiry can be demonstrated by analyzing the following components and scope of reflection:

a) *Components of critically reflective enquiry*: Critical reflectivity implies stepping back and considering if conclusions we have reached about what we think we understand about university teaching and learning and about our subject or discipline, are accurate and/or desirable, or whether alternatives are necessary. In our understanding, a critical reflective enquiry can be examined by looking at three main skills: critical thinking, enquiry and analysis, and integrative learning. These three skills can appear interrelated in the participants’ accounts, for which it is important to differentiate its meaning.

- **Critical thinking**, understood as a habit of mind is characterized by the comprehensive exploration of issues, ideas, artefacts, and events before accepting or formulating an opinion or conclusion.

Critical thinking is explored in the portfolios and projects by examining several dimensions as for example the *explanation of issues* (if the teacher states critical issues/problems and describes information necessary for full understanding) or the *topic selection* (if the teacher selects a focused and manageable topic).

- **Enquiry and analysis**. Enquiry is a systematic process of exploring issues, objects, works through the collection and analysis of evidence that result in informed conclusions/judgments. Analysis is the process of breaking complex topics or issues into parts to gain a better understanding of them.

Enquiry and analysis are explored in the portfolios and projects by examining several dimensions, as for example: the *existing knowledge, research and/or views* (if the teacher

synthesises information from sources representing various approaches) or *the design process* (if the teacher develops elements of the theoretical framework and methodology).

- **Integrative learning.** It is an understanding and a disposition that a learner builds across the curriculum from making simple connections among ideas and experiences to synthesizing and transferring learning into new, complex situations in the teaching practice. It includes the capacity of self-assessment of their own learning and development process as teacher.

Integrative learning is explored in the portfolios and projects by examining several dimensions, as for example: *the connections to experience* (if the teacher connects relevant experience and academic knowledge, for example through the biography) or *the self-assessment of teaching* (if the teacher demonstrates a developing sense of self as a learner, building on prior experiences to respond to a new and challenging context).

The aim of involving university teachers in the research of their disciplinary teaching is to enhance transfer of academic development practices for the benefit of students' learning. Our critical reflective enquiry approach places a special importance on the transfer of learnt skills. Transfer is understood as the adaptation and application of skills, abilities, theories, or methodologies gained in throughout the CAS to new teaching situations. In the analysis of portfolios and projects, transfer is encasing the three components described above because transfer is overlapping the whole process.

b) *Scope of reflection*, or different levels of proficiency:

- **Superficial:** Initial, quick reflection of the range of issues.
- **“Zooming in”:** fine grained analysis of a particular issue.
- **“Zooming out”:** a synthesis and evaluation of the text is obtained by a “zooming out” to enable a reconciliation of conjectures and a restructuring of our sense of issues and the relative significance of these issues. It extends reflection from the local level to the social political context in which a practice occurs.

Given the high level of heterogeneity of our participants (from junior to expert teachers, from lecturers to professors, from a broad range of disciplines and backgrounds), the approach of our analysis is concentrating on reflective processes across disciplines. As diverse as the participants are, as different are the topics of the projects, e.g. implementing an E-learning tool for a lecture and evaluating it, evaluating an active learning method (problem-based learning, case studies, games, etc.), comparing the pros and cons of frontal teaching versus problem-based learning, etc.

The developed model is being represented in form of a rubric containing the aforementioned components and scope of reflectivity. The rubric is used to analyse a sample of teachers' portfolios and projects. After a pilot testing, we apply the tool to a meaningful sample of academics' work to assess the level of critical reflective enquiry, as well as to identify the difficulties or gaps that participants show in their reflective enquiry accounts (for example, in the planning of the implementation of the active learning method, in the description of the teaching philosophy, or in the transfer of learnt skills into new situations). Results of this assessment will improve the quality of support offered to participants during the process of developing their own portfolio and project.

The presentation at the conference will yield more information on our CREM framework and the results after the pilot implementation. Additionally, we expect to trigger fruitful discussions among the participants of the EuroSoTL 2017 that contribute to the further development of the experience.

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