



## Tutorial Methods in a Distance Study Course on Qualitative Empirical Education Research

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### **Abstract:**

*For many students in educational science, empirical research methods represent (partial) new ground - not only at the beginning of the lifelong learning process. It is important above all to (re-)awaken interest and motivation in scientific work and in the associated methodology. Project-oriented courses are an important tool in the varied toolkit of distance universities for stimulating such a response in the spirit of the Seamless Learning Approach [7]. This paper focuses on the conception, implementation and evaluation of a project-oriented course on qualitative empirical social research organized every semester at FernUniversität in Hagen (Germany) since the summer semester 2012.*

*The aim of the module is to conduct small research projects in the field of educational sciences and to experience related impasses with a view to building competencies in research and methodology (from teaching to learning; [1]). Using qualitative data collection instruments in a case study, one or two interviews are conducted and the findings are analyzed on a methodological basis. Reasons for the data collection and interpretation of the results are stated and the methodology is analyzed in detail. Guidelines to be evaluated are the theory approach and the methodology with which the research question was tackled. During their research projects the students are tutored in various ways (Moodle course, webinars, on-campus events; [6]) in the sense of a blended-learning-approach.*

*In addition to describing the module structure, this paper reflects critically on the various ways of fostering individual competence development.*

### **1 Introduction**

This paper shows how interest and motivation in scientific working methods are (re-)awakened by the project-oriented module “Empirical Education Research – Qualitative Methods”. The aim of the module is to conduct small research projects in the field of educational sciences and to experience related impasses with a view to building competencies in research and methodology [1]. The paper is divided into four parts. The Introduction (1) is followed by the Conception (2), describing the structure of the module content which is based on the Seamless Learning Approach [7]. The Implementation (3) describes the individual work steps and phases in the module. The paper is rounded off by a Conclusion (4).

### **2 Conception**

The module “Empirical Education Research – Qualitative Methods” in the B.A. Education Science is embedded in the specific operating system of FernUniversität in Hagen [6]. Registered students receive billed course materials in printed form and are tutored with a blended learning approach.

The objective of the module is to conduct and experience a research process as a separate scientific project in a case analysis. One to two interviews are to be conducted and evaluated under methodological guidance as a practice-driven module. Guidelines to be evaluated comprise transparent presentation of the overall research design in a written research report. This addresses the theory and methodological implementation of the research question, the data collection and interpretation of the results, as well as reflection on the methodology at a high level of abstraction.



Various tutorial methods are offered and used to resolve questions and clear up any uncertainties during the work.

1. A Moodle course with various thematic areas for asynchronous communication is available to the student researchers. On the one hand questions can be asked and discussions conducted with (student) researchers in joint forums. On the other hand the individual research projects are tutored in separate threads in which the respective specific research projects are discussed with the tutors. Furthermore, the student researchers can interact with each other in a forum (not moderated by the tutors).
2. Face-to-face seminars are offered in the form of workshops by academic researchers for student researchers. These on-campus events held at various regional centres of FernUniversität and on the campus in Hagen cover a number of data collection and evaluation methods in qualitative empirical education research. They are explained in theory and trained together.
3. Selected contents of the on-campus events are offered as webinars via Adobe Connect.
4. The student researchers collaboratively compile wiki entries on survey and evaluation methods or on projects of qualitative empirical education research implemented in the Moodle course and present their experiences for discussion.

As of the summer semester 2012, the tutoring of the module has been following the Seamless Learning Approach [7], thus pursuing a number of different objectives:

- to increase the interest and motivation of the student researchers for exploring the methods of qualitative empirical education research;
- to improve the comprehensibility and accessibility of the methods of qualitative empirical education research;
- to take into account the individual context of the student researchers in order to refine methodology and research competence more successfully on an individual basis.

The (learning) theory basis of the Seamless Learning Approach [7] focuses on the students and their heterogeneity at different levels. The term Seamless Learning subsumes scenarios that comprise (lifelong) learning in different situations, at different times, in different locations, self-reliantly and in groups, as well as face-to-face and media-facilitated [7]. From a systematic review of literature, Wong identifies ten dimensions of Seamless Learning [7].

### **SL1: Encompassing formal and informal learning**

Wong [7] differentiates between formal and informal learning within or outside a physical and institutional space. The module leaves it up to the student researchers what research project they pursue. The goal is to link up with the acquired everyday knowledge (informal learning) and the pre-knowledge (formal learning) of the student researchers. This is not a matter of mass replication of a research avenue (massification), but instead of discovering diverse and also unknown research paths that are integrated within the context of the individual (personalization).

### **SL2: Encompassing personalized and social learning**

On the one hand the module promotes collaboration in the joint discovery and clarification of the theory contents and practical problems in the context of qualitative empirical education research, and on the other hand it addresses the individual experiencing of one's own research project.

### **SL3 and SL4: Across time and location**

The module is accessible as a Moodle course throughout the internet, being flexible in terms of time and location. It can be joined and left within the research-economic pre-defined framework conditions of the module.

### **SL5: Ubiquitous access to learning resources**



In the spirit of problem-based learning [4], the student researchers investigate suitable literature self-reliantly to process their individually selected themes. A semester apparatus supports the literature demarcation in the area of data collection and evaluation methods. Moderation by tutors motivates the student researchers to discover and use the internet-wide access to information, such as e.g. open educational resources (OERs) and to exchange their findings with the scientific community in the course.

### **SL6: Encompassing physical and digital worlds**

This dimension relates to the combination of learning experiences in the field of research and the theory-based information acquired in the module work. The student researchers conduct small studies (research projects) independently in order to support the mutual transfer of theory and self-experienced practice. What is important here is to implement the basic theoretical knowledge about collection and evaluation methods in actual practice. The high degree of heterogeneity among students in distance courses promises rich results and experiences in the real world.

### **SL7: Combined use of multiple devices**

Access to the module course is possible via any internet-capable terminal with a browser. In their access to field work, the students use e.g. a laptop with recording function or a dictating device for recording face-to-face discussions, and the tool CallGraph is employed for recording synchronous computer-aided communication via Skype.

### **SL8: Seamless and rapid switching between multiple learning tasks and SL9: Knowledge synthesis**

To build up knowledge and refining methods and research competencies (SL9) successfully in the module it is necessary for the student researchers to alternate constantly between working through the course materials as a theoretical knowledge base, the literature they have specially researched for their individual research project, and the process steps of qualitative empirical education research in the spirit of learning tasks, continuously and critically reflecting on each of these (SL8).

### **SL10: Encompassing multiple pedagogical or learning activity models**

The diverse collection and evaluation instruments in qualitative education research are based on different methodological-didactic approaches. Collaborative research activities, work materials and studies in the spirit of research-based learning [1] and connectivism are integrated within the variable areas of tutorial support (Moodle course, webinars, wikis) and the face-to-face events (workshops), as well as in private (untutored) learning groups. Individual research steps are drafted and put up for discussion in order to review one's own learning progress. The student researchers make a selection of suitable methods depending on the design of their research.

## **3 Implementation**

Each semester around 600 participants work in the module. The studying status of the student researchers plays a key role. The processing periods vary depending on their full-time or part-time status (SL2), which has an effect on the research-economic framework of the projects. The greater part of the module work is carried out in the form of asynchronous communication in the Moodle course (SL7). The online socialization of each actor in the course plays a crucial role here [5]. The various phases of the module work are shown in Table (1).

**Table 1: Processing phases**



P1	Working through the course materials	Moodle: general discussion forums	Individual / collaborative	Written	Moderated
P2	Literature research (current status of research)	Moodle: Individual threads	Individual	Written	Moderated
P3	Literature research (methodological instruments)	Moodle: general method forum	Collaborative	Written	Moderated
P4	Practical methodological working and training	Workshops	Collaborative	Oral	Moderated, unmoderated
P5	Summarizing, Clarifying final questions	Webinars	Individual	Oral	Moderated
P6	Producing wikis	Moodle: general discussion forums	Individual / collaborative	Written	Commented
P7	Writing the research report	Private PC	Individual	Written	Moderated, commented

In the first phase (P1), students work self-reliantly through the course materials. If anything is unclear, asynchronous collaborative exchange is possible at any time. Moderation by tutors is guided by motivating participants in accordance with the Self-Determination Theory [3] and the aspect of personal inquiry learning. Despite tutorial support, students are expected and encouraged to work out the contents of their own research project independently. It is conducive for the discussion if questions or mistaken conclusions are not answered or corrected immediately by the tutors (so-called E-Irritation; [2]). Instead, the tutors follow the discourse attentively and only intervene if mistaken conclusions become firmly entrenched or no independent solution is found. This makes it possible to build up understanding of certain terms or phenomena in the exchange with other student researchers (SL9). A working atmosphere that promotes the courage to make mistakes is a prerequisite here. The discussions include the individual context of those student researchers with corresponding pre-experience (SL1), thus stimulating knowledge synthesis in parallel (SL6, SL9).

A further preparatory phase comprises the independent and exhaustive literature research on the current status of research in the student's self-selected research theme. (P2). Each student researcher processes a different research question, so that literature research concerning the current research status becomes an individual project (SL5, SL8). A separate thread in the Moodle course is available to each student researcher for this. Here the same tutor supports the student right through to correction of the research project submitted, Suggestions, articles or essays found on the internet or in the library resources can, however, additionally be put up for discussion with other students in order to check the relevance of the articles (SL10).

The theoretical development of the qualitative methods of empirical education research takes place in the next phase (P3). The collaborative discourse between the student researchers is encouraged in a separately set up method forum in the Moodle course. The processing time is open. Student needs determine when a theme/method has been exhausted (SL3). Both seamless and disruptive processing options are involved, as the workflow can be interrupted or resumed without any problem, depending on personal preferences, time structures or resources. The introduction of disruptive interfaces in an otherwise seamless design can substantially improve the learning process. After completion of the preliminary theory work, practical immersion in the methods of qualitative empirical education research follows. Only a few students participate in the discursive, collaborative tasks and these are termed "the Avant-Gardist" [2]. Despite this, not only the intrinsically motivated student researchers but also those extrinsically motivated are reached by reading these contributions. Accordingly, in the typology according to Ehlers, "the Pragmatic" and "the Result-Oriented" [2] also profit. The answers provided by the students can be considered as feedback for the tutors. If contents or statements remain unclear, it is possible to respond accordingly.



After completion of all the preliminary theory work, training of practical action methods in the research process starts in the next phase (P4). The student researchers optionally attend various face-to-face events on selected methods of qualitative empirical education research conducted at three locations spread across Germany. In groups of three, the students interview each other mutually. Alongside the interviewer and the interviewee, the observer has the task of considering the situation from a different perspective, “from outside”. This reduces tutorial support [5] and transfers responsibility for conducting the interview to the participants. Even if the tutor is always present and approachable, the student researchers are shown their own independence. On the one hand this results in greater self-confidence, and on the other hand they become aware of their responsibility to the interviewee. In accordance with the Self-Determination Theory, their intrinsic motivation is enhanced by strengthening the sense of autonomy. Following the collaborative tasks, brief interview texts are made available and evaluated in group work, applying an appropriate method.

Thematically structured webinars via Adobe Connect (P5) summarize the features of data collection and evaluation methods. During and following the “online lecture”, students can ask questions and eliminate any unclear matters. The webinars are recorded and set in Moodle and are thus accessible to the non-participants too (SL3, SL4).

In the next phase (P6) the student researchers can put the data collection and evaluation methods and/or the projects conducted and experiences gained up for discussion in wikis set up in Moodle. The tutors comment on the contributions, so that they can be seen as specimen solutions for the respective individual research project. The wiki is also predominantly produced by “the Avant-Gardist” [2]. The reflection process teaches access to the methodological instruments. Passive recipients and latecomers (SL3) can also profit from the contributions and are thus motivated to actively collaborate or continue the work.

The final processing phase (P7) covers the individual research project and the translation into written form of the research report. Tutorial support continues.

## 4 Conclusion

Interest in and motivation for scientific work and the associated methods for future education scientists can be (re-)awakened through the combination of different support forms in distance studies too. The conception and implementation of the module “Empirical Education Research – Qualitative Methods” in the B.A. course on educational science at FernUniversität in Hagen, presented along the lines of Seamless Learning, documents this. The positive development of the competencies of student researchers and the associated good examination results are to be considered as the result of taking individual and contextual conditions of the students into account.

Online-based courses can actively stimulate learning processes in distance studies, despite the high number of course participants, and promote the acquisition of competencies. The Seamless Learning Approach proves to be valuable as a theoretical backup, since motivating and interesting student researchers through collaborative tasks and assignments is just as essential as via individual processing with disruptive interfaces. Individual research activity in the meaning of qualitative empirical education research involves experience that is elementary for building up and refining methodology and research competence. The practical research experiences admittedly move within an individual case study, but despite this they form a generalizing basis for further research by the student researchers, for example within the framework of Bachelor or Master theses.

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