Introduction to the Action Research Series in CELT Matters

Action Research projects in ELT teacher education

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This article provides

- an introduction to a new series of contributions within CELT Matters in which (student) teachers have the opportunity to publish findings from action research projects;
- conceptual considerations relating to supporting student teachers in becoming action researchers and in continuing their professional development;
- conceptual considerations relating to the role of the teacher educator in the initiation and supervision of action research projects;
- a description of the specifics of action research publications.

1. Sharing insights from action research

The publications and discussions in CELT Matters offer insights into current research conducted in settings of English language teaching and learning in Austria. All student teachers in the Master of Education programme at CELTER (Centre for English Language Learning, Teaching and Teacher Education Research) carry out action research projects accompanying their Master practicum. As our student teachers produce many insightful research results and design innovative interventions for their EFL practice within their projects, we believe that readers of CELT Matters will be interested in the findings, projects and thoughts of the next generation of English language teachers and those already teaching while attending the Master programme.

This introductory article offers us an opportunity to present our considerations of how we integrate action research (AR) into the English language teacher education programme. Within pre-service teacher education, we see the role of the teacher educator as a crucial one for enabling student teachers to experience action research as an inspiring and effective tool for their professional development.

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2. Becoming a language teacher – becoming an action researcher: Action research in language teacher education

Action research aims at supporting practitioners to explore their practice in a systematic, method-driven way in order to improve, for example, English language education for all participants (Burns, 2010). It positions the English language teacher as a reflective practitioner and thus draws on notions of reflection-on-action (Burns, 2010, p. 18). As we see it, the approach of action research frames the practitioner as the expert in their practice and supports a constructivist view of teacher learning in the sense that it requires the learning and deliberate practice of a reflective practitioner to bring about change and improvement in their practice. Action research is thus highly appreciative of the complexity of teaching practice and its continuous development.

Action research for foreign language teachers originates from an Australian group of researchers and teacher researchers (Kemmis & McTaggart, 1986) and the influential British educational thinker Stenhouse (1981, 1983), who was the first to promote the active role of teachers in educational research. Action research was introduced to teacher education in Austria in the late 1980s (Altrichter & Posch, 1990) and is frequently applied in educational contexts and in particular in teacher education (Altrichter et al., 2018; Alpen-Adria Universität, n.d.). In the field of foreign language teacher education, it is because of Burns (2010, 2015) that action research has flourished, and she has inspired a growing number of action research projects and programmes (Mack, 2012; Caspari, 2016; Spann, 2020; Mehlmauer-Larcher & Wipperfürth, 2021).

The regular steps of an action research project constitute a cyclical sequence of teaching interventions in the field of practice and a critical inquiry into those interventions. This process should ideally lead to a hermeneutic spiral furthering the action researcher's understanding of the impact of specific interventions and, as a consequence, improve the learning situation of their learners. To this end, the action researcher first identifies an aspect of their teaching that they want to improve or better understand. Secondly, a thorough literature review is conducted in order to deepen and broaden the practitioner's understanding of the chosen aspect of teaching on the basis of validated theory.

In a third step, the practitioner plans an intervention that will allow them to deliberately adapt and vary their practice. As such, action research can be described as one systematic form of deliberate practice (Ericsson et al., 1993), which in this case is accompanied by appropriate methods of data collection in order to allow the action researcher to systematically evaluate the impact of and new experiences made during the intervention from different perspectives. The data collection methods should be chosen in a way that they can help link action, observation and reflection (Burns, 2010, p. 54f). In that sense, action research can be considered a form of evidence-based teaching, as teaching-related decisions are based on considerations from validated theory and evidence collected from the field.

In the fourth stage, the results are analysed, at which point the action researcher gains the greatest distance from their teaching practice and thus increases the space for systematic reflection. As action research does not primarily intend to produce generalisable insights (Burns, 2010, p. 10) but rather situated ones, the results of the analysis are used for an individual context-related reflection process. In the fifth and final stage, those reflections can be used to plan further adaptations of one's practice, and a second round or "cycle" (Burns, 2010, p. 9) of action research would normally begin. As described in sub-section 3.1 below, the format of the Master practicum allows for the thorough completion of one cycle. However, this single cycle nonetheless has the potential to lead to many insightful conclusions and a solid introduction to this approach of continuing professional development for Master students.

In our setting, the action researchers are student teachers of English doing a Master practicum and attending the accompanying Practicum Course. The course focuses on an introduction to action research as a means of fostering professional teacher learning parallel to their practical field experiences. We thus employ action research as a sophisticated tool for pre-service teacher education within the frame of a substantial and crucial practicum phase.

In the following section we outline our understanding of student teacher learning when conducting action research and our roles as teacher educators when guiding this process.

3. Supporting student teachers in their action research: The role of the teacher educator

3.1. The Master practicum and the Practicum Course

The university-based Practicum Course (4ECTS) was first introduced in 2018 with the aim to bridge professional field experiences and university-based learning (Zeichner, 2010). It is one of three ELT methodology courses within the Master programme and accompanies the extensive Master practicum (9 ECTS)†. The Master practicum can, very concisely, be described as follows: As part of their practicum portfolio the student teachers carry out about 30 focused observations of English lessons at various age and proficiency levels. Additionally, the student teachers are required to plan, teach and reflect on 15 to 20 lessons, parts of which can involve teaching individual students or small groups. Among these lessons they should teach one class consecutively over a period of two to three weeks. This period of consecutive teaching is often chosen for the action research intervention. In addition to these tasks, they co-teach one lesson, sharing the planning, teaching and evaluation phase of this unit with their mentor

[†] link to curriculum:

aiming at an increased multilevel exchange on teaching-related matters with their mentor.

In order to gain further experience in language assessment, the Master students also shadow their mentors in the design and assessment of (written) tests. Furthermore, we encourage them to participate in team meetings, excursions and projects related to school development etc. as far as possible. There are a growing number of student teachers who already have a teaching contract and are studying for their Master while teaching (mostly in lower secondary schools), for which the practicum tasks have been adapted accordingly.

3.2. The setting of the Practicum Course

The specific teacher education setting in which our student teachers carry out their action research is outlined in Figure1 below. The student teachers gain experience in the field guided by reflective tasks and supported by mentor teachers who are experienced English language teachers, some of whom have attended a university-based training course in mentoring. The student teachers' university-based course constitutes a learning space in which the teacher educator provides theoretical introductions and readings from academic fields of reference (primarily from ELT methodology and action research), sets reading and reflection tasks, initiates and guides the implementation of an action research project, provides feedback on student teachers' progress and enters into discussions on any questions that might arise in connection with the action research project or the field experience as such (Figure 1). This close combination of student teachers' field experience and their action research project is carefully scaffolded in the university-based course. Crucial steps in this scaffolding process are explained in more detail below.

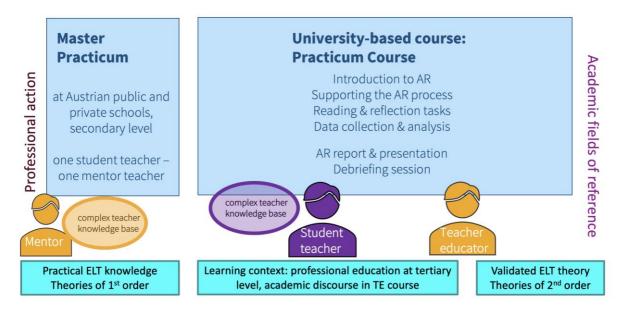


Figure 1: The setting of action research within the Master programme at CELTER.

3.3. Student teacher learning in action research projects

The rationale of the Practicum Course is based on a constructivist view of teacher learning (Korthagen, 2010; Edwards & Burns, 2016; Farrell & Kennedy, 2019). The activities and tasks are centred around the student teacher's active involvement with and critical reflection on their professional knowledge base and validated theories from research. We consider this involvement as essential for carrying out action research projects successfully. As action researchers, student teachers have to continually mediate between the challenges of teaching practice and the concepts and principles of validated theory from the fields of ELT methodology, applied linguistics and, where appropriate, learning psychology or general education.

A major challenge in the design of teacher education programmes is to cater for a successful transformation of theoretical knowledge acquired in university-based courses and its application in the manifold and extremely varied fields of practice. This successful transformation of knowledge requires a thorough organisation of teaching practice phases and the promotion and facilitation of a full and seamless integration of teaching practice phases into teacher education programmes (Gebhard, 2009; Legutke & Schocker-von Ditfurth, 2009). In order to meet this considerable challenge, a concept of teacher learning is required which, on the one hand, initiates, guides and demands the cognitive process of transforming theoretical knowledge into teaching practice and, on other hand, provides a conceptual frame for so-called situated learning processes taking place in the social context of classroom settings (Lave & Wenger, 1991; Korthagen, 2010; Mehlmauer-Larcher, 2012).

We, thus, find it important for us as teacher educators to reflect on the relationship between validated research theories and practitioners' professional knowledge base, which are often referred to as theory and practice. Following a number of other researchers, we want to question that dichotomy. For, if we follow through with the idea of a constructivist approach to teacher learning, it becomes less reasonable to talk about 'theory' and 'practice' as two opposing fields, as 'practice' in the context of teaching cannot be considered a theory-free undertaking and should thus be labelled differently.

In the context of teacher education at university level, Häcker (2012) suggests to rather talk about 'theories of first order' and 'theories of second order'. Calling both types of knowledge 'theories' gives credit to the fact that practitioners' theories are "structurally different" from theories based on academic research but "equal in value" for professional teaching and professional teacher education (cf. Terhart, 1992). Häcker (2012) further delineates phenomenological differences between the two concepts, which are summarised in the following Table 1:

	Theories of first order	Theories of second order
Domain of validity	Teaching practice	Research and science
Quality criterion	Appropriacy	Truth
Objectives	Guidance in practical decisions Justification of decisions	Advancement in knowledge Generalisable findings through methodological procedure
Requirements of the domain	Need to decide in the teaching situation	Need to give proof

Table 1: Structural differences between theories of first order ("practice") and second order ("research"), (Häcker, 2012, translated and adapted by the authors).

Within teacher education, both spheres are ideally mediated in the form of reflection on teaching (Häcker, 2012, p. 275). Considering the complexity of classroom decisions and the reported number of 200 decisions that teachers make per lesson (Clark & Peterson, 1986), it becomes immediately clear that theories of second order (validated theory) cannot immediately guide decision making during teaching.

In other situations, though, when instant decision making is not necessary, e.g. when planning, discussing or reflecting on teaching, theories of second order can and need to be used to base teaching decisions on validated principles, in order to ensure professional teaching. For concrete application in the field, those theories of second order need to be integrated through transformational processes before becoming applicable in classroom practice. Action research in teacher education offers a framework for such knowledge transformation. For the setting of the previously described Master practicum and Practicum Course, such transformational processes and supporting factors are summarised in the following illustration (Figure 2) and explained in more detail below.

In Figure 2, the student teacher is positioned between two spheres: the professional field of application on the left hand side and academic fields of reference (theories of second order) on the right hand side. The Practicum Course, with its tasks and space for discussion (orange box), and the teacher educator are positioned in the middle as both aim at mediating between the two spheres by initiating, monitoring and scaffolding student teacher learning and knowledge transformation processes.

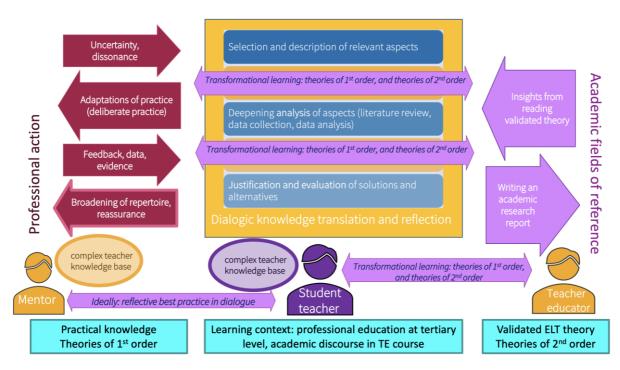


Figure 2: Transformation processes of practical theories and validated theories from research within action research projects.

In addition, Figure 2 depicts the mediating processes involved when student teachers carry out their action research projects within the Practicum Course. All orange elements – the mentor, the teacher educator and all tasks set within the university-based course (middle segment) – aim at supporting the successful transformation of academic knowledge and, consequently, the professional development of the student teacher. In the following, these processes are briefly described.

The orange field in the middle of Figure 2 tries to illustrate the ideas of reflective practice, more specifically the concept of professional vision as stated by Sherin and van Es (2009). The three blue boxes within that field correspond to the underlying idea of professional vision, namely that of a critical interpretation of concrete classroom events. This critical interpretation consists of three consecutive steps; firstly, noticing, selecting and describing relevant aspects of teaching, secondly, analysing the chosen relevant aspects of teaching and thirdly, justifying and evaluating alternatives (Sherin & van Es, 2009). The procedure of the Practicum Course roughly follows this sequence in that first, the student teachers gather experience in the practical field (left hand side of the illustration in Figure 2). After a couple of weeks of getting to know the learners and the teaching context, via general and focused observations and first teaching experiences, the student teachers identify an area they feel motivated to systematically explore further within their action research ('selection and description of relevant aspects', see Figure 2). Through observation and reflection tasks, the student teachers are guided towards making sense of their teaching experiences and envisioning methodological decisions that might lead to improved teaching interventions. As

teacher educators we thus work towards activating the prior beliefs and acquired knowledge base of student teachers as comprehensively as possible. Once the student teachers have selected an aspect of their teaching they want to do research on, this aspect needs to be related to concepts of ELT theory and theory from related disciplines in order to gather information on findings and insights from validated theory ('deepening analysis,' see Figure 2).

Then student teachers are supported in relating their deepened understanding of theories of second order to their field of practice and their planned intervention. This requires them to carry out the demanding process of mediating between theories derived from academic disciplines and the challenges of the concrete field of practice. They reason about ways to adapt their practice according to those insights and plan their teaching intervention ('justification of solutions and alternatives,' see Figure 2).

In order to be able to evaluate their teaching intervention, the student teachers are instructed to take the perspective of the action researcher when reflecting on their teaching and select appropriate data collection and data analysis methods that will allow them to critically assess their teaching intervention ('evaluation of solutions and alternatives,' see Figure 2).

4. The role of the teacher educator in action research: Dialogic knowledge transformation

In the Practicum Course, the teacher educator introduces the student teachers to action research for EFL teachers, which in most cases is the student teachers' first encounter with this practitioner research. It has proven successful to intersect theoretical introductions, reflective tasks on the student teachers' experiences at school and scaffolding tasks for all steps of their action research projects throughout the course. Those scaffolds involve guided readings, presentations by the teacher educator, writing tasks, discussions, lecturer feedback on project outlines and short student presentations, as well as examples of data collection and data analysis sessions.

As action research differs from other forms of classroom-based research, potential misconceptions are discussed at various points during the course. Based on our observations, such misunderstandings can concern the focus, scope and aim of student teachers' action research projects. So far, no thorough research has been conducted on how (student) teachers develop an understanding of action research, which would, however, be highly interesting and useful to improve teacher education programmes which make use of the approach.

In the Practicum Course, we tackle possible misconceptions in open discussions, of course, but also – more methodologically – by asking the student teachers to upload, for example, their preliminary ideas for action research projects anonymously on a *padlet* in preparation for a course session. In that session, the student teachers then have time to consider the presented ideas, and together in class we discuss possible

problems such as too general or vague a focus for their research. Further aspects that are frequently discussed include questions of how to relate their teaching issues to validated theories, how to find an ELT-specific focus, or how to choose appropriate data collection tools. Additionally, information on relevant literature resources is provided and questions related to issues of EFL teaching methodology are discussed.

Five weeks into the practicum, the student teachers formulate a two-page project proposal. By this point, the student teachers have been acquainted with their mentor's classes through observations, they have started teaching and are about to plan their two or three weeks of consecutive teaching, which is often the most appropriate phase for carrying out the teaching intervention for their AR project. The student teachers receive extensive feedback on their action research proposals in written form and in a 30-minute individual coaching session. On top of that, they are encouraged to discuss their project proposals in peer groups.

During those coaching sessions and in whole-group course sessions, the teacher educators initiate – what has been described as – "reflective best practice in dialogue" (Wipperfürth, 2016): In discussions, they demonstrate how theories of first and second order are related to one another (see explanation in subsection 3.3) and aid student teachers' own reflections by asking questions, offering ideas for related ELT concepts and their practical application in the field of practice.

In addition to the central role of the teacher educator, the student teachers' mentors also play a crucial role in this process as the mentors need to support their mentees on the level of the concrete teaching intervention planned for the action research project as well as on organisational levels. Furthermore, the mentors can act as valuable sounding boards throughout all stages of the action research project.

With regard to the empirical research part of the AR project, the teacher educators support the student teachers in choosing appropriate research methods that will allow them to examine their own assumptions and subjective interpretations of teaching experiences during the intervention from different perspectives. Such perspectives can include the perspective and actual learning experiences or products of the learners, observations of the mentor or video and audio recordings of teaching sequences. To this end, study texts on different data collection methods and information on data analysis procedures are discussed and actually practised in class or in peer groups. The student teachers practise the analyses of data collection documents like questionnaires, interviews, filled in observation grids, transcripts of recordings or EFL student products. This leads into a critical discussion of relevant and appropriate methods of data analysis.

The final action research report handed in by the student teachers is intended to be a valuable tool for evaluating their progress and ability to present their action research projects in a professional and academic text format; more importantly, it is a didactic tool to scaffold, structure and deepen the student teachers' reasoning and reflection processes throughout their action research projects and their ongoing field experience.

5. Specifics of action research publications in CELT Matters

As discussed above, action research is a potent approach to acknowledging the fact that theories applied in teaching practice are 'structurally different' but 'equal in value' to theories based on academic research (see subsection 3.3). Action research offers a well-structured yet open enough method for (student) teachers to explore, adapt and enrich their professional knowledge base. By relating insights from their initial literature review closely to their day-to-day practice, the relevance of theories of second order (findings from validated research) becomes evident.

Action research focuses on the enhancement of practitioners' knowledge base in order to improve ELT practice, which again follows the overall objective of improving the situation of learners. Because of its strong focus on the practitioner as researcher and their personal professional development, action research follows, in parts, different objectives and is carried out under circumstances that differ from those of classroom-based research, which typically aims at the generalisability of findings. These particularities need to be mirrored in the specific structure of research publications presenting findings from action research as is the case with CELT Matters publications on AR projects. Table 1 lists and briefly explains adaptations that are necessary if justice is to be done to the specific characteristics of action research.

Core elements of publications on classroom-based empirical research	Adaptations and additions for action research publications (please consult the CELT Matters action research series template as well)	
Rationale	Research interest + professional relevance in specific teaching context	
Study design and research question	Research questions	
	 Project description Teaching context and participants (situated research) Plan of teaching intervention Research methodology: Data collection and data analysis 	
Findings	Findings and context-specific conclusions for the professional development of the student teacher	

Table 1: Differences in structure and content between publications on classroom-based empirical research and action research projects.

5.1 Rationale and professional relevance in teaching context

Action research is situated research aiming at both the professional development of the action researcher – the student teacher researcher – and the situation of the learners. For that reason, a critical analysis of the current learning and teaching situation of the action researcher stands at the beginning of the research project. Based on this analysis, the contributions present insights from a literature review of relevant ELT-specific areas.

5.2 Research questions

Due to the situatedness of action research, some of the research questions presented may contain concessions relating to the specific teaching context. For some interventions, research questions may follow a specific sequence and depend on one another as the student teachers might first want to gather further information on the learning situation through surveys or interviews, and only then plan their intervention based on this information.

5.3 Intervention and research methodology (Project description)

At the heart of action research projects is the intervention – a deliberate form of practice – that aims at improving the student teacher researcher's professional knowledge base as well as the situation of the learners. A successful intervention, thus, needs to pay close attention to the "social situation" (Burns, 2010, p. 290), that is the concrete teaching situation, which involves considering the age and proficiency level of the target group, the teaching context, educational responsibilities and ethical considerations.

In terms of research methodology, action research projects follow established standards. Student teachers often decide to combine two to three different data collection methods to include the learners' perspective and evaluate their learning, to make use of a colleague's or the mentor's perspective and to systematically record their own observations.

5.4 Findings and conclusions for professional development

Findings from action research are generated in a specific teaching situation, which normally involves only a small number of participants from one or two learner groups. Such findings can, thus, not be generalised. Rather, they serve as a basis for two kinds of conclusions the action researcher can draw: firstly, for reflecting retrospectively on their professional learning during the action research process and, secondly, for reflecting prospectively on future steps of professional development.

Traditionally, action research involves various rounds or cycles of action research (cf. Kemmis & Mc Taggart, 1988) in order to use insights from previous ones to successively improve practice, which is not possible within the Master practicum because of time constraints (see section 2). As a consequence, conclusions often

centre around ideas for future interventions and further improvement of the situation of learners.

6. Conclusions

It has been argued that teacher educators can play a crucial role in initiating, supporting and scaffolding action research. One core motivation of teacher educators when introducing action research is its great potential for enhancing a positive and sustainable professional development of the individual (student) teacher researcher as well as the teaching community.

Based specifically on our experiences with action research in language teacher education at Master level, we see considerable potential in action research for

- acknowledging the value of practitioner knowledge;
- making validated ELT theory more relevant to practitioners;
- guiding and supporting crucial transitional phases in teacher education, especially between university-based education and teaching practice;
- promoting transformational learning in teacher education;
- strengthening the cooperation and collaboration between (future) practitioners, mentor teachers and researchers.

Application Box

The experiences with action research in pre-service teacher education at CELTER Vienna so far – and all publications in the new CELT Matters Action Research Series – can encourage

- EFL teachers at any stage of their career to investigate their own practice and to become an active member of the growing action research community;
- EFL teachers and researchers to find inspiration for practice-oriented thinking and future research areas:
- EFL teacher educators to deepen their understanding of the developmental needs and potentials of their student teachers.

We are much looking forward to many insightful and thought-provoking publications in the new Action Research Series of CELT Matters.

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