The state of the art in Self-Study of Teacher Education Practices: A systematic literature review

Biographical notes

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Abstract

This article reports on a systematic review of the Self-Study of Teacher Education Practices research literature published between 1990 and 2012. Self-study research refers to teacher educators researching their practice with the purpose of improving it, making explicit and validating their professional expertise and, at the same time, contributing to the knowledge base of teacher education. Reflecting our analysis we defined self-study as a research approach in the field of teacher education which can be typified by the following characteristics: self-study research focuses on one's own practice; for this reason it privileges the use of qualitative research methods; collaborative interactions play a central role in the research process; and its validation is based on trustworthiness. Furthermore, we identified two tensions inherent in the self-study work, on which researchers always and continuously need to position themselves for self-study inquiries to achieve its purposes: the tension between relevance and rigor on the one hand, and that of effectiveness and understanding on the other hand.

Keywords: Self-Study of Teacher Education Practices; teacher educators; teacher education; review

1. Introduction

Action research (Altrichter, Posch, & Somekh, 1993; Kemmis & McTaggart, 1988), teacher research (Cochran-Smith & Lytle, 1999), reflective practice (Russell & Munby, 1994), and other forms of practitioner research (for an overview, see Cochran-Smith & Donnell, 2006) are all closely-aligned forms of 'practitioner-owned' research in which practitioners carry out research in their practice. They share the assumption that educational quality hinges on the knowledgeability of practitioners and that practitioners actively studying their own schools and classrooms is a valuable approach to improve that knowledgeability.

Early in the 1990s, a growing group of teacher educators has joined this line of work, but adapted it to fit the particularities of their practice: educating student teachers. Their approach has become known as *Self-Study of Teacher Education Practices* and encompassed research by teacher educators aimed at making explicit and questioning their tacit knowledge of practice through systematic investigation of their practices. Self-study concerns "the autobiographical, historical, cultural, and political and [taking] a thoughtful look at texts read, experiences had, people known, and ideas considered" (Hamilton & Pinnegar, 1998: 236) and their connections to practice. Apart from contributing to the improvement of teacher educators' own practices, self-study researchers also seek to make explicit and validate their professional expertise with the explicit intent of advancing the public knowledge base of teacher education (see a.o. Cole & Knowles, 1998; Loughran, 2007; Loughran, Hamilton, LaBoskey, & Russell, 2004; Pinnegar & Russell, 1995). The purpose of self-study has thus always been to move beyond the particularities of practice by making public the developed understandings (through conference presentations, research reports, journal manuscripts) in order to make them informative for others and available for critical debate. This agenda is broadly shared among the community of self-study researchers.[1]

In 1993, a group of like-minded scholars established the *Self-Study of Teacher Education Practices Special Interest Group* (SIG) of the *American Educational Research Association* (AERA). This organizational affiliation of researchers, the largest in AERA's SIG constellation, gave 'self-study' its formal meaning as a descriptor of the work and made it distinctive from other forms of teacher research.[2] It also offered an annual and international forum for the presentation of self-study research at the AERA conference making the work broadly accessible. In 1996 the first biannual *International Conference on Self-Study of Teacher Education Practices*—commonly known as the Castle Conference—was organized at Herstmonceux Castle in East Sussex (UK). In the aftermath of these conferences, a plethora of self-study texts was published from the mid-1990s onwards. In 2004, *Kluwer Academic* published the *International Handbook of Self-Study of Teaching and Teacher Education Practices* (Loughran et al., 2004) and a year later *Taylor and Francis* launched *Studying Teacher Education: A journal of Self-Study of Teacher Education Practices*. Finally, since 2005 *Springer Press* has published twelve volumes in the book series *Self-Study of Teaching and Teacher Education Practices*. Parallel to this, self-study writings appeared in other peer-reviewed academic journals, such as *Teaching and Teacher Education, Teachers and Teaching: Theory & Practice,* and the *Journal of Curriculum Studies*. Given its organizational emergence as an AERA SIG and its widespread acceptance in publishing venues, it seems appropriate to talk about the S-STEP 'movement'.[3]

To date, self-study research has been performed by both experienced (e.g., Loughran & Northfield 1996; Scherff & Kaplan 2006) and novice teacher educators (e.g., Bullock, 2009; Marin, 2014), working from various subject disciplines (e.g., Berry, 2007; Pereira 2005), teacher education contexts and staff positions (e.g., Guilfoyle et al. 1995; Kosnik 2005). An important outcome of this work has been identified as the construction of an explicit pedagogy of teacher education and the growth in practice that follows from this critical self-

examination. In unpacking the complexities of educating student teachers, self-study research also "[added] dignity to the important yet universally undervalued work of those faculty and staff who educate a nation's teachers" (Zeichner, 2007: 14).[4]

Self-study research, however, has also been criticized for a number of reasons. These critiques come from researchers working both inside and outside the S-STEP movement. A persistent criticism is its lack of methodological rigor and transparency (e.g., Feldman, 2003; Loughran, 2010; Wilson, Floden, & Ferrini-Mundy, 2002). This critique does not reject self-study research as a venue for personal and professional development, but questions its potential for theory development. Others have responded to this critique, stating that self-study represents a different genre of research for which an adequate grounding and authority has yet to be formed (e.g., Bullough & Pinnegar, 2004; Hamilton & LaBoskey, 2002). These authors argue that critics perpetuate a problematic dichotomy between teaching and research or privilege formal knowledge over knowledge of practice. A second, and related, criticism is that the studies insufficiently build on previous work in the field and establish 'chains of inquiry' (Shulman, 2004) that could result in grounded theory development (e.g., Cochran-Smith, 2005; Zeichner, 2007). This criticism is related to the observation that self-study is often pursued as a single strategy, rather than integrated into a more comprehensive research program. Thirdly, the self-critical nature of the work itself has also been challenged. Seriously questioning existing interpretations and assumptions is difficult when one examines one's own experience (Loughran & Northfield, 1998; Loughran, 2007). Loughran (2007: 13) points to the risk of learning in self-study research simply becoming "a pseudonym for rationalization or self justification". This criticism is common to many other forms of practitioner research, but is perhaps most quickly recognized as problematic in self-study research. In relation to this, Korthagen, Loughran and Lunenberg (2005: 110) have problematized the role of theory in self-study research while arguing that:

> it would be risky if personal theories, developed by self-studies, are not linked with public theory and if teacher educators would start to reinvent the wheel on the basis of a limited theoretical framework. Such an approach would not only undermine the development of a knowledge base for teacher education, but also the status of teacher educators within the academic world.

Despite these critiques, self-study has resonated strongly with the lives and practices of many teacher educators and has been proclaimed "the single most significant development ever in the field" (Zeichner 1999: 8) and thus attracting a large AERA S-STEP SIG membership. In this article we aim to systematically map and critically analyze the results of self-study research (i.e., its published output) in order to make explicit and validate the important merits of the work and its contributions to the field of teacher education in general and the pedagogy of teacher education in particular. At the same time, this study establishes as it goal to identify potential threats or pitfalls self-study research will have to deal with if it is to continue and even strengthen its significance in the future. This general interest is reflected in our two research foci. Mapping the actual agenda of self-study research as a specification of its general aims is a first goal of our analysis: What kind of research questions are being addressed in self-study research (research question 1)? Our second interest involves the characteristics of self-study as a methodological process (research question 2), including explicit attention to issues of research quality.

2. Method

The results presented below are grounded in two complementary datasets.[5] In order to do justice to the merits of the self-study research, we only included published works in our systematic review since it would have been too easy and intellectually unfair to include, for example, preliminary drafts of conference papers or papers reflecting work in progress.[6]

Our first dataset consisted of publications which were judged by the S-STEP movement itself (as acting editors or reviewers) to be of a quality that warranted publication. This dataset included the aforementioned *International Handbook of Self-Study of Teaching and Teacher Education Practices* (Loughran et al., 2004), the Springer Press book series, and the articles published in the first seven volumes (2005-2012) of *Studying Teacher Education: A journal of Self-Study of Teacher Education practices*. It thus concerns self-study work tested against internal evaluation criteria. This dataset contained 126 publications which addressed self-study either as a concept (its theoretical-methodological foundations) or as an empirical research practice.

A second dataset consisted of self-study works published in journals and books outside the S-STEP community after scientific peer-review such as, for example, articles published in *Teaching and Teacher Education, Teacher Education Quarterly,* or the *Journal of Curriculum Studies*. In order to systematically map and review (Petticrew & Roberts, 2006) this body of literature, we searched *Librisource Plus: Education Sciences, Google Scholar* and *Google Books*. This way our search included all peer-reviewed journals listed in the *Educational Resources Information Center, Web of Science,* and *Academic Search Premier* databases and (publications in) handbooks, book series, and monographs (edited volumes) which together assemble most international educational research on teacher education. We searched these databases online for writings published between 1990 and 2012 since self-study has become organizationally embedded, and its ideas and outcomes more prevalent, through the establishment of the S-STEP SIG in 1993. The keywords used in our search of the literature were: self-study, self-study research (between quotation marks to ensure the whole word was used as a search term), self-study inquiry (again using quotation marks), and teacher ed* which needed to be mentioned in the abstract, keywords, and or/title. Our initial search yielded 241 single publications. These were screened by reviewing the title and/or

abstract. Our criterion for selection was that the publication needed to allow us to answer the research questions, that is, it needed to contain definitions, models, and/or examples of empirical self-study research. A total of 88 journal articles were included in this dataset, the majority of which (77 articles) were empirical reports of self-study research.

The first step of the analysis consisted of a *within-case analysis* (Miles & Huberman, 1994) taking the individual publication (i.e., journal article, monograph, or book chapter) as the unit of analysis. In this phase of the review, analytical memos were written for all publications included in the two datasets. We applied a common structure of five rubrics reflecting our research questions: (1) full bibliography reference and keywords, (2) problem framing and background of the study, (3) theoretical framework, (4) research method, and (5) research findings. A column for remarks, questions, or preliminary interpretations by the researchers was also included.

In the *cross-case analysis* (Miles & Huberman, 1994), the unit of analysis shifted from the individual pieces of work to our two research questions outlined above. A systematic interpretative reading of all the literature memos was performed in line with the technique of *constant comparative analysis* (Strauss & Corbin, 1998) through which preliminary interpretations were developed, iteratively checked with the data, and modified or refined if necessary.

3. Results: Characteristics of self-study research

As discussed earlier, based on our analysis of the research literature, we define self-study as a research approach in the field of teacher education which can be typified by the following characteristics: self-study research focuses on one's own practice; for this reason it privileges the use of qualitative research methods; collaborative interactions are constitutive for the research process; and its validation is based on trustworthiness.

3.1. Self-study focuses on one's own practice

An essential characteristic of self-study research is that it is initiated and carried out by the practitioners whose practices are being studied. Research questions in self-study research "are embedded in teacher educators' real concerns and dilemmas within their practice" (Nilsson & Loughran, 2012: 122). In the selected self-study publications we identified four broad categories of issues or themes that were addressed.

A first theme concerns the impact of particular pedagogical interventions on student teachers' learning and development (e.g., Brandenburg, 2008; Ciuffetelli Paker & Volante, 2009; Dourneen & Matthewman, 2009). For example, Brandenburg (2008) examined weekly 'Round Table Reflection' sessions as a means of enhancing student teachers' reflective learning in her mathematics methods classes. Ciuffetelli Parker and Volante (2009) investigated the tensions experienced by student teachers and university supervisors while completing summative evaluations during practicum supervision within a formative assessment framework. The self-study of Dourneen and Matthewman (2009) analyzed the transformation of a university teacher education course on ICT in student teachers' internship lessons through videotaping the lessons of two student teachers. Typical for this first set of studies is their largely practical (often didactical) focus and their self-oriented nature in that their general goal relates to the ongoing improvement of one's (didactical) practice with student teachers (see also Cole & Knowles, 1998).

A second theme encompasses oneself as a 'living contradiction' (Whitehead, 2000), acknowledging and analyzing the differences between one's normative beliefs and aspirations on the one hand, and one's actual teaching practices on the other hand (e.g., Conle, 1999; Dinkelman, 2003; Harris, 2007; Whitehead & Fitzgerald, 2007). Conle's (1999) research interest was, for example, becoming more informed about problematic aspects of her practice

which normally remained hidden from her understanding and reflections. “I undertook to study my teaching not because I saw particular problems (I did see several), but in order to discover if there were problems I did not see” (Conle, 1999: 803). As becomes evident in the work of Dinkelman (2003), these studies are often prompted by a critical incident which triggers intensive self-reflection. Dinkelman (2003) described an incident in his classroom in which one of his students burst into tears and stated that she “didn’t feel safe in this classroom” (Dinkelman, 2003: 6). This was the starting point for him to explore why students did not feel free to speak their minds in his classroom through a series of interviews. The interviews revealed how his facial expression was perceived as judgmental by some students, while promotion of open classroom discourse was one of the personally most valued objectives in his teaching. “You kind of have that wrinkled face when you look at people … like that right there. … You have a face. It’s stupid. It’s totally stupid. It shouldn’t matter, but it does” (Dinkelman, 2003: 6).

Dinkelman’s (2003) study also points to a third research theme in self-study: teacher educators trying to make their practice a more socially just learning environment. Examples can be found in the edited volume *Advancing social studies through self-study methodology: The power, promise, and use of self-study in social studies education* of the S-STEP Springer series published in 2010 (Crowe, 2010) which shares the results of nine self-studies in social issues. Another example is the work of the Arizona Group (e.g., Guilfoyle, 1995; Guilfoyle, Hamilton, Pinnegar, & Placier, 1995) whose members experienced increasing difficulties to understand the unspoken rules for tenure in academia and the discourses of the contested but nevertheless dominant forms of academic scholarship which continued to privilege outsider research approaches.

Articulating a philosophy of practice or exploring broader theoretical-pedagogical interests is a fourth theme in self-study research. For novice teacher educators, this involves the

investigation of their transition into their new role in an effort to better understand and subsequently develop their personal pedagogies of teacher education (e.g., Bullock, 2009; Dinkelman, Margolis, & Sikkenga, 2006). More experienced teacher educators find in self-study a tool to articulate a theory of practice as this relates to their personal values, biography, and experiences (e.g., Gitlin, Peck, Aposhian, Hadley, & Porter, 2002).

Taken together, the research subject in self-study always involves "one's self, one's actions, one's ideas" (Hamilton & Pinnegar, 1998: 236), but its actual definition in empirical self-study inquiries depends on the role and responsibilities the teacher educator enacts at a given moment in time. What part of practice is being studied, thus, depends largely on how one perceives one's *professional sphere of influence*, that is, the (actual or perceived) space to influence and optimize a particular practical setting. The aforementioned study of Brandenburg (2008), for example, is illustrative of a number of studies that start from and are carried out at the micro level of teacher education practice: the immediate context of the classroom and the pedagogical interactions between the teacher educator and his/her student teachers. These studies focus on the core processes of teacher education practice, involving questions such as 'How can I encourage students to take a more reflective stance towards their field experiences?' (Freese, 2006). A second level of analysis in self-study involves one's actions at the meso level of the teacher training institute and its curriculum (e.g., Clandinin, 1995; Cochran-Smith et al., 1999; Manke, 2004). Clandinin (1995), for example, analyzed the *modus operandi* of the program in which she taught using the 'sacred theory-practice' metaphor referring to a traditional view on teacher training as delivering the established theory of good teaching and translating this into practice. The research topic in her inquiry was how a particular organizationally embedded teacher training concept shaped her teaching practices. The study eventually initiated a process of curriculum renewal and, as such, illustrates how self-studies potentially also impact the level of the organization. Finally, some

self-studies analyze how the macro level of the broader political-institutional context impacts one's teacher education practices and to what extent one can escape or avoid unwanted influences on that practice (e.g., Craig, 2010; Kornfeld, Grady, Marker & Ruddell, 2007; Kosnik, 2005; Sharky, 2004). Kosnik (2005), for example, analyzed the influence of a changing policy environment on her practice by retracing her changing experiences as a teacher educator when moving from the Canadian into the US teacher training system. The institutional context as research object in self-study is also clearly illustrated in the work of Kornfeld, Grady, Marker and Ruddell (2007: 1902) investigating "the impact of California's state-mandated revision of teacher education programs on their departments', as well as on individual faculty members', approach to teacher education".

3.1.2. Self-study privileges the use of qualitative research methods

The data collected in self-study relate to one's experiences and practices as a teacher educator. To reconstruct, map, analyze, and represent that practice to a broader audience, self-study researchers use "whatever methods will provide the needed evidence and context for understanding their practice" (Hamilton & Pinnegar, 1998: 240). Indeed, our review of the literature indicated that self-study has no single method inscribed to it. Self-study borrows its repertoire of research methods and strategies from the conventional methods of empirical-analytical and/or qualitative-interpretative research. This corroborates the findings of Zeichner's (1999) review.

Exemplary methods include interviews with colleagues and student teachers (e.g., Loughran & Northfield, 1996), audio- or videotapes of instructional activities (e.g., Berry, 2007), observations (e.g., Hug & Möller, 2005), autobiographical reflections (e.g., Craig, 2010), and student teacher evaluations, feedback, assignments, and results (e.g., Bair et al., 2010). However, the research literature also demonstrates alternative approaches, such as

collages (e.g., Hamilton & Pinnegar, 2009), drawings (e.g., Samaras, 2010), or poetry (e.g., Hopper & Sanford, 2008) to achieve the task of mapping, analyzing, and presenting personal experiences as data. Methods are often combined in a single study in order to capitalize on the strengths of each method (triangulation).

Underlying these specific research methods and strategies is a reliance on broad 'genres' of research. Hug and Möler (2005), Kitchen (2005), and Craig (2010), for example, drew on their narrative inquiry backgrounds to write in the self-study research genre. They shared their experiences of practice through vignettes, anecdotes, and stories that are designed to capture the essence of a practice and portray it to others. The prevalence of narrative research methods in self-study can be explained by the nature of the research interest and the recognition of stories as

> the form in which we and other teachers and teacher educators most often represent our experiences. Stories, ripe with possibility for inquiry, surround and envelop us as teachers and teacher educators. They are the woven fabric of school landscapes. Moving from telling stories of our teaching practices to narratively inquiring into our teaching practices … [offers] an opportunity to come to understand". (Clandinin, Pushor, & Orr, 2007: 33).

Other research genres inspiring self-study are action research (e.g., Feldman, Paugh, & Mills, 2004) or life history approaches (e.g., Gitlin et al., 2002).

Furthermore, the self-study research literature illustrates a need for methods which are feasible for practicing teacher educators to perform in their day-to-day professional situations. Self-study researchers not necessarily collect new data for the specific purpose of their study, but often use existing written (e.g., lesson plans, meeting reports, comments on discussion boards) and non-written data (e.g., photographs, video-tapes of instructional activities) to inform their research interests. Margolin (2008), for example, used transcripts of recorded

group discussions in departmental staff meetings, courses for cooperating teachers, and meetings in schools, together with written feedback from student teachers as the primary dataset in her research.

Although the plethora of actual research methods in self-study is broad and varied, the majority is qualitative in nature. This comes with little surprise given the general purpose of self-study: articulating and refining one's professional expertise and understanding of teacher education practices. The knowledge developed in and through self-study cannot be disconnected from the complex reality it refers to, and is embedded in (LaBoskey, 2004; Pinnegar & Hamilton, 2009; Whitehead, 2000).

3.1.3. Collaborative interactions play a central role in self-study

A point on which most literature agrees, is the need for self-study to be a collaborative process (e.g., multiple chapters in the *International Handbook*: Bodone, Gudjonsdottir & Dalmau, 2004; Bullough & Pinnegar, 2004; Guilfoyle et al., 2004; LaBoskey, 2004). The term self-study may well conjure up an individual, self-reflective approach to investigating practice. Yet, paradoxically, research interactions and the checking of data and interpretations with others, are an explicit part of the work. Social interactions in self-study have been framed as a way to avoid the pitfalls of individualism and navel-gazing (Kelchtermans & Hamilton, 2004), and, at the same time, allow the embeddedness of the process and outcomes of the study in a broader public debate. As such, collegial interactions also serve as a triangulation of the presented understandings and interpretations. "Garnering multiple perspectives on our professional practice setting helps to challenge our assumptions and biases, reveal our inconsistencies, expand our potential interpretations, and triangulate our findings" (LaBoskey, 2004: 849).

This characteristic stands out most in studies reporting on the link between collaboration and the reframing of assumptions underlying practices (e.g., Fletcher & Bullock, 2012; Guilfoyle et al., 1995; Kitchen, Ciuffetelli Parker & Gallagher, 2008; McDonough & Brandenburg, 2008). Fletcher and Bullock (2012), for example, collaboratively investigated their developing theories and practices as beginning teacher educators, while coming from different subject discipline backgrounds (e.g., physical education and science teacher education). Using a blog and face-to-face meetings, they established a collaborative forum of communication allowing them to "challenge our developing understandings of theory and practice in teacher education classrooms using the contexts of physical and scientific literacy as touchstones for discussion and debate" (Fletcher & Bullock, 2012: 31). Their study demonstrates how collaboration with a trusted colleague proves a powerful venue to consider alternative interpretations of collected data and eventually come to new understandings. Fletcher & Bullock's (2012) work exemplifies one category of research collaboration found in the literature reviewed, as their collaboration transcended the physical boundaries of their local institutes and disciplines. Other self-studies in this category used e-mail, Skype, or telephone conversations (e.g., Berry & Crowe, 2009; Lunenberg & Samaras, 2011).

A second form is collaboration between teacher educators working as colleagues in their local institutes. These research practices range from small-scale and ad hoc collaboration to structurally embedded and supported research groups in the organization. An exemplary study is that of Cochran-Smith et al. (1999) reporting on a multi-year self-study project conducted with all faculty members of a single department collaborating on the curriculum development of a new pre-service teacher education program.

Thirdly, self-study researchers also engage in research collaboration with their student teachers in various ways (e.g., Dinkelman, 2003; Freese, 2006; Loughran & Northfield, 1996). Freese (2006), for example, conducted a two-year self-study collaboratively with one

student teacher aiming at a better understanding of the complexities of learning to teach, as well as the specific teacher educator activities that can foster student teacher growth and development.

A final type of collaboration comprised working with colleagues involved in teacher education, but with different agenda's. In *Opening the classroom door*, Loughran and Northfield (1996) describe Northfield's return to teach science and mathematics in a secondary school in order to inform his established teacher education practice. In putting together an account of the self-study, Northfield collaborated with an experienced teacher, Jones, who interviewed his students, and an experienced teacher educator, Loughran, who wrote up the research.

This characteristic of collaborative work, however, not only refers to settings in which researchers interact with others based on an external dataset. Some self-studies explicitly include their documented collaborative interactions as an inherent part of the dataset (e.g., Berry & Crowe, 2009; East, Fitzgerald, & Heston, 2007; Guilfoyle et al., 2004; Lunenberg & Samaras, 2011). Berry and Crowe (2009), for example, used e-mail correspondence between them as a method, and transcripts of these conversations as data, to articulate, reconstruct, and represent their personal theories of practice.

3.1.4. Validation in self-study is based on trustworthiness

Self-study research starts from one's experiences and grounds its assertions for practice and understanding in that experiential basis of 'lived practice' (Pinnegar & Hamilton, 2009). Given the challenge of articulating, representing, analyzing, and reporting personal experience as data, the self-study research literature often suggests the criterion of *trustworthiness* (Lincoln & Guba, 1986) and related notions such as *integrity*, *credibility*, and *authenticity* (e.g., Bullough & Pinnegar, 2001, 2004; Feldman, 2003; Hamilton, Smith, & Worthington,

2008; Hamilton & Pinnegar, 2000; LaBoskey, 2004; Loughran, 2007). Trustworthiness refers to "the degree to which other practitioners or researchers turn to, or rely on, and use the concepts, methods, and inferences of a practice as the basis of their own theorizing, research, or practice" (Mishler, 1990: 419).

Lyons and LaBoskey (2002) extended this idea of self-study research quality demonstrated in the trustworthiness of the findings in the notion of *exemplar-based validation* which has become recognized as seminal to the field. Validity, as defined from an exemplar-based approach, "depends on concrete examples of actual practices, fully elaborated so that members of a relevant research community can judge for themselves their 'trustworthiness' and the validity of observations, interpretations" (Lyons & LaBoskey, 2002: 20). For self-study inquiries to be exemplars of scholarship and practice, they need to be intentional and reflective human actions, be socially and contextually situated, engaging the writer/researcher in interrogating aspects of teaching and learning by storing the experience, implicate the author's sense of self, and involve the construction of meaning and knowledge. The teacher educator/researcher offers the professional community an exemplar or model of how a practice works, with the invitation to 'try out' these understandings (i.e., to confront and compare with personal experiences, to further refine, verify, or reject as incorrect or obsolete). Validating (rather than validity) is seen as a social-constructivist process of knowledge creation, in which establishing and judging the trustworthiness of a study is the key element. "Trustworthiness, meaning that the field is advanced by the construction, testing, sharing and re-testing of exemplars of teaching practice" (LaBoskey, 2004: 851; see also Pinnegar & Russell, 1995). One exemplar of practice does not prove another, but adds heft (Geertz, 1983) to its validity and increases the trustworthiness of claims.

This stance thus also implies that the quality of a single self-study can never be adequately assessed based on abstract rules or standard procedures. It is the reader of a report who

ultimately judges the validity of the study by considering whether it is informative, relevant, or useful in his/her own setting (Hamilton & Pinnegar, 2009). Making public the knowledge of teaching and learning about teaching is "an invitation of a self-study (to see if the case for me is also the case for you)" (Ham & Kane, 2004: p. 117).

4. Discussion: Tensions in self-study research

Taken together, these four characteristics constitute (i.e., characterize and distinguish) self-study as a particular research approach in the field of teacher education. At the same time, these characteristics can also be used to identify and mirror back to the S-STEP community challenges and concerns that might help the further achievement of its important agenda as a form of constructive critical feedback. We will phrase these challenges in the form of two tensions on which self-study researchers need to consciously position themselves time and time again: the tension between relevance and rigor on one hand, and the tension between effectiveness and understanding on the other hand. The notion of tensions is intended to capture how these issues are part of the ever-present ambiguity of self-study research and cannot be completely reconciled. Designing, conducting, and reporting a self-study means managing these opposing demands and, as will become clear, this shapes the collection and analysis of data in self-study research as well as its knowledge outcomes.

4.1. The Self-study tension between relevance and rigor

Self-study research inevitably finds itself operating in the tension between relevance and rigor. This tension immediately follows from its double research agenda: contributing to professional development and improvement of practice on one hand, and the development of a publicly accessible and grounded knowledge base on teacher education on the other hand. It goes without saying that this tension is not the unique province of self-study research, but

equally applies to other forms of practitioner research (see Anderson & Herr, 1999; Schön, 1995).

Moving too far to the side of *relevance* produces solipsistic self-study, over-emphasizing idiosyncrasy. Such studies might raise awareness or open new understandings for individual teacher educators in their local contexts, but their value does not reach beyond the site of study. At this side of the tension, self-study becomes the study *of* the self *by* the self and *for* the self. The 'so what?'-question, which Bullough and Pinnegar (2001) see as the critical reference for high-quality self-study research, remains largely unanswered. Moving too far to the side of *rigor*, emphasizing methodological concerns in order to justify generalization of the findings, offers scope for traditional research paradigms, but may result in concessions to methodological technicalities and reduced conceptualizations in order to allow proper measurement. This eventually leaves the teacher educator/researcher without benefits from his/her efforts. In the research literature, we found this tension exemplified in the wide range of self-study projects varying from the more personal, introspective, confessional explorations of the self (e.g., East, 2009; Hamilton, 2005; Schulte, 2009) to studies that leave the self of the researcher in the background or addressed in as far as it is enacted in a particular practice (e.g., Brandenburg, 2008). For the S-STEP community, the question is on what part of the continuum the studies will be situated that are deemed most valuable in moving both the professional practice and knowledgebase of teacher education forward.

It is clear that the balance between relevance and rigor is a recurring challenge in the empirical research process, requiring different knowledge, skills, and expertise at different moments in the process. In order to properly negotiate this tension, the teacher-educator-as-researcher needs to master and apply a number of technical-methodological skills and attitudes (e.g., developing an interview guideline, working with field notes during observations, developing codes and categories for data-analysis). Negotiating this balance

also means that were methods are borrowed, established research practices are respected. Apart from the need for methodological skillfulness, balancing rigor and relevance also demands a proper mastery and thorough understanding of the theoretical concepts and models used to frame and situate the research interest as precise as possible, to relate data to explanatory theory during data analysis, and—eventually—to engage in explicit dialogue with other authors or theoretical frames. The latter is a fundamental prerequisite to achieve the necessary level of generalization beyond the particularities of the local context. Self-study researchers—just like any other researcher who aims at contributing to a public knowledge base—need to explicitly build on previous work in the field, conceptually, theoretically, as well as methodologically. Although this is clearly acknowledged and argued in the theoretical and methodological publications by the leading authors in the field (e.g., Bullough & Pinnegar, 2001; LaBoskey, 2004; Loughran, 2007, 2010; Loughran & Northfield, 1998; Pinnegar & Hamilton, 2009), we came across a number of self-study accounts in which the role of research literature (concepts, theories, models) in the study remained rather unclear, ambiguous, or implicit. These studies were mostly descriptive-reflective in nature, started from a broad interest or curiosity, and developed largely independent of existing theories, concepts, or hypotheses in its operationalization. These studies could be labeled as examples of systematic reflection in which the reflective practitioner starts from his/her actions and gathers data on these actions which are interpretatively discussed. This approach may be highly valuable for one's own practice and development as a professional, but falls short with regard to the final agenda of self -study research. These critical reflections are not completely new to the field, but confirm earlier critiques from authors both working within and outside the S-STEP community (e.g., Bullough & Pinnegar, 2001; Feldman, 2003; Grossman, 2005; Zeichner, 2007).

To be clear, we are not arguing that self-study should turn to strictly formal and rigorous methodologies in which the inevitably contextualized character of teacher education practice is ignored or reduced. Following Zeichner (2007) and Loughran (2010), we reject the dualism of knowledge (and research) either contributing to more thorough theoretical understandings in a particular field or to the improvement of practice. Nor do we claim that high quality self-study cannot be intensely personal, both in its point of departure and in its object of analysis. We join Clandinin and Connelly (2004) in their claim that self-study research has the best possible way of having an impact on the field of teacher education practice and scholarship because it potentially involves change in the self and that is where change is least likely, but most apt to occur. However, this does not dismiss the researcher from the need to show how the issues confronted by the self are related to public issues and concerns. “Otherwise, there is no possibility of answering the ‘so what’ question, the question of significance, that wise readers ask and require be answered” (Bullough and Pinnegar, 2001: p. 15). In order to stay true to its research agenda to not only optimize practice, but also contribute to a grounded and public knowledge base of teacher education, self-study needs to encompass and demonstrate intentional and systematic actions of data collection and analysis. Independent of the epistemological or theoretical stance taken as a researcher, that stance needs to be made explicit, driven by a well-articulated research interest (in terms of consciously chosen and carefully used concepts and theoretical frames), and based on appropriate methods for collecting and analyzing data. Eventually the findings need to be made public in ways that allow for critical evaluation by the researcher’s community.

4.2. The self-study tension between effectivity and understanding

The tension between rigor and relevance, and the plea for theoretically informed and systematically documented self-study research, should not be read as a plea for restricting its

research agenda to questions of effectivity ('what works?'). On the contrary, our review of the research literature has documented the potential of self-study for contributing to a broader, more 'pedagogical' understanding of teacher education practices. As such it holds strong promises for critically challenging the policies in many countries that have furthered a rather narrow and instrumentalist view of teacher education practice and scholarship (e.g., Darling-Hammond, 2010; Murray, 2008). Yet, at the same time, the focus of self-study on analyzing one's own practice in order to improve it or solve specific problems of practice, might add to the appeal of the instrumentalist and effectiveness agenda. Solving problems or increasing effectiveness of one's personal pedagogy are tempting as immediate rewards of one's research efforts. And, if this technical-instrumentalist focus even gets further legitimacy from policy makers (or their pressure for accountability by showing the evidence-base of pedagogy in teacher education practices), it is hardly surprising that self-study researchers (as well as other approaches in the practitioner research tradition) might be seduced to narrow their agenda to these issues. This would limit the value of self-study to its functional, self-oriented, and problem-solving character and, by doing so, self-study research runs the risk of being cut off from its enormous potential to develop a substantial critical-political, pedagogical, and epistemological understanding of the complexities of teacher education.

Most self-studies in this review clearly reached beyond this instrumentalism, mapping and unpacking the situated, relational, and personal character of teacher education practice. This resulted in interesting conceptualizations of that practice in terms of paradoxes (Wilkes, 1998), tensions (Berry, 2007), axioms (Senese, 2002) or assertions for practice (Pinnegar & Hamilton, 2009). Berry's (2007) identification and description of tensions, for example, allowed her to frame her work as a teacher educator as a complex and ongoing challenge of meeting multiple, competing goals and responsibilities in a single practice situation. She demonstrated how the identified tensions not only deepened her understanding of those

complexities, but also how they could be used to further improve and develop her practice and student teachers' learning; The stories from her practice are helpful and identifiable by others as exemplary ways of educating student teachers. But however vivid, engaging, and familiar to others, these stories are of themselves not sufficient for her study to imply meaning beyond the specific episodes and practices described. Framing her knowledge of practice as a series of tensions uncovers the underlying assumptions of practice and the reasons for choosing a specific course of action over another in specific situations and, as such, also offers a conceptualization of knowledge that others may use to frame and investigate their situations and seek the general from the particular. As such, it is the articulation of the understandings derived from her research of practice in conceptual terms that do justice to that particular practice as well as lift it to a more general level that made her work an exemplary illustration of how self-study can contribute to the public knowledge of teacher education.

It is important that these more pedagogically-oriented interest and research themes stand side-by-side with instrumental ones, or that an emphasis on understanding remains equally relevant than one aiming for evaluation and feedback on the effectiveness of a specific didactical approach. But even when driven by an instrumentalist or problem-solving interest ('how to'-questions), it remains important for self-study to include a focus on the critical analysis of teacher education practices, its underlying assumptions, and enacted rationales. Carefully mapping and interpretatively reconstructing what is happening in a specific pedagogical situation (and why it is happening) is a research agenda which is firmly rooted in everyday practice, but at the same time develops an understanding with a relevance that moves far beyond that local practice. Linking a thorough analysis of these issues enacted in local practices with the educational research literature and thus with conceptualizations developed by others, is necessary to really live up to the full agenda of the self-study movement.

4. Conclusions

This review of the published literature centering on the *Self-Study of Teacher Education Practices* research has confirmed and illustrated the movement's ambition to contribute to a publicly accessible, critically grounded knowledge base of teacher education, using as its starting point systematic investigations of one's practices as a teacher educator. We systematically reviewed the research literature with regard to two research questions: (1) What research questions are being addressed in self-study research (research question 1)? and (2) What characterizes self-study as a methodological process (research question 2)? Based on our analysis we defined self-study as a research approach in the domain of teacher education which can be typified as follows: self-study focuses on one's own practice as a teacher educator; for this reason it privileges the use of qualitative research methods; collaborative interactions are constitutive for the research process; and its validation is based on trustworthiness.

Living up to its ambitious research agenda, however, demands that self-study researchers acknowledge two tensions in which they constantly need to position themselves: the tension between rigor and relevance on one hand, and the tension between effectivity and understanding on the other hand. Positioning implies understanding the need to balance both elements, even if they can never be completely reconciled.

The tension between relevance and rigor pointed to the need for self-study researchers to engage in systematic dialogue with existing theoretical and conceptual work from the very moment they start framing the issue in their teacher education practice which triggered their research interest. However valuable reflective-descriptive accounts of their experiences at the narrative level of collegial exchange, they need to include careful conceptualization, as well as systematic, empirical (data-based) methodologies, all of which needs to be reported in a

way that enhances a reader's understanding of teacher education as well as convinces him/her through the trustworthiness of the argument, in order for these accounts of practice to become 'studies'.. This implies that—as several authors have repeated before—the 'so what?'-question remains at the heart of every self-study. This would also help to achieve Zeichner's (2007) call for accumulating knowledge across self-studies, especially within specific content areas.

The second tension between effectiveness and understanding pointed to the need to keep the research agenda in self-study sufficiently broad. Rather than trying to resemble as much as possible the dominant—often narrowly instrumentalist or accountability-driven—forms of academic educational research, self-study researchers should remain faithful to the broad variety of research goals and interests as documented in this review. This commitment to a practice-based, yet theory-building research agenda, could turn the self-study approach into a research perspective that is more promising and inspiring than the currently dominant perspectives.

Notes

1 This is not an empirical claim based on the results of this literature review. Rather, it reflects a broadly shared theoretical claim about the need for self-study "to move beyond the individual" (Loughran & Northfield, 1998: 15). Evidence for this claim can be found in Barnes' (1998) observation on the characteristics of self-study identified from the first 1996 S-STEP conference, the preface of the *International Handbook* (Loughran et al., 2004), the editor's note to the *Springer book series*, and the editorial introduction to the first issue of the *Studying Teacher Education journal.*

2 Self-study research is ahistorical in nature. Some of its ideas had been published before in the associated fields of, for example, action research (e.g., McNiff, 1988) and reflective practice (e.g., LaBoskey, 1994; Russell & Munby, 1992) with an explicit focus on the public articulation of personal dilemmas of practice as a teacher educator.

3 Although the self-study approach originated and developed primarily in the field of (research on) teacher education, more recently several self-study scholars have pushed the boundaries, to also include and engage also others beyond teacher education settings. A good example can be found in Crowe's (2010) edited volume in which additional work is included by collaborative groups and individuals who are not (yet) teacher educators and that focuses, for example, on classroom practice in K-12 settings.

4 In this article we use 'S-STEP' as the generic term to refer to the organized movement (i.e., the collection of initiatives, publication platforms, and forums tied together by a particular perspective on teacher educator research). With the term 'self-study' we refer more specifically to the empirical research practices of authors working within the S-STEP movement.

5 Publications included as data in this review are marked with an * in the reference list.

6 More personal, reflective contributions on websites or forums were not included in this analysis. In addition, the proceedings of the S-STEP Conferences were not included since this conference attempts to be a forum to discuss research in progress, rather than disseminate the results of finished research. Furthermore, the papers are intended as “the first part of a two-part communication, the second part of which is the 50-minute presentation each presenting author makes at the Castle Conference itself” (Lighthall, 2004: 199). The papers in itself include limited detail on research methods and contexts which can be attributed to the strict 3000 word count and purpose of the papers.

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