Research Article

Teacher research as a reflective practice in Iranian education context: A qualitative case study

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ABSTRACT: The purpose of this study was to identify how teachers understand teacher research and use it in professional development. The role of a teacher as an action researcher in Iran is still insufficiently appreciated and promoted in initial teachers' training. Most of these research studies focus on descriptive aspects of teacher education rather than exploring relations among teacher education and teacher performance in schools. Two qualitative studies among the number of high-school teachers in Iran, with content analysis method used to clarify the teacher's attitudes about teacher research or teacher action research. Also findings showed that applying a teacher research course like *District-Based Teacher Research Course* can lead to improvement in teacher professional development. Findings indicated that teachers use research, although they tend to seek it out under very specific conditions and circumstances.

KEYWORDS: Teacher Research, Reflective Practice, District-Based Teacher Research Course, Iranian Teachers

1.INTRODUCTION

Throughout teacher education literary works, there is much reference to a theory–practice gap. This literature commonly frames that gap regarding the difference involving the ideas taught inside a university in teacher education program and the practice found throughout school instruction (Mitchener & Jackson, 2012). Cochran-Smith (1991) framed the condition as one connected with beginning teachers ''learning to teach against the grain'' where this expression is used as a metaphor for struggle of educators to implement the principles they figured out in teacher preparation despite over-powering affects of contrary college practice (Lortie 1975; Loughran 1994).

Before decade, the terms *teacher research* and *action research* happen to be used an increasing number of frequently. However, there exists confusion about what exactly these terms mean and what

teacher researchers go about doing. So this study aims to explore the research and theoretical literature related to teacher research.

The subsequent topics are dealt with in the present research: what teacher research is, what teacher researchers do and why, why their work is important, the major criticisms of teacher research by educational scholars and policymakers, support for teacher research, and the recommendation and practical implications for improving teacher research in education settings.

2.TEACHER RESEARCH

Teacher research generally make reference to contexts in which teachers connect to scientists in performing scientific investigations (Dixon & Wilke, 2007). Based on Kardash (2000), teacher research epitomize the cognitive apprenticeship model. Grounded in the theory of situated cognition and social constructivism theories, cognitive apprenticeships promote the development of thinking and knowledge that is necessary to a specific context by allowing individuals to build up within that situation (Brown, Collins, & Duguid, 1989; Lave, 1997).

Teacher research is a kind of qualitative research wherever teachers investigate their unique practice as a kind of personal, professional action (Cochran-Smith & Lytle, 1999; Kincheloe, 2003). Based on Cochran-Smith & Chips (2008) the techniques about teacher research can be categorized under four headings: curriculum-oriented teacher education, training-oriented teacher education, learning-oriented teacher education and output-oriented teacher education.

Lytel (2000) discovered four thematic supports for teacher study: Pedagogy; Culture as well as community; Cultures of teaching in/out of schools; and gain access to equity, and democratic education and learning. The largest volume of literacy research fell underneath the pedagogy category, which has two subcategories: Classroom instruction, or curriculum, as well as assessment; and classroom environment and organization. Lytle's frames of these four categories show the different types of research—the how as well as the why—in which teacher researchers engage.

Additional writers on the main topic of teacher research credit the job of Lewin, Stenhouse, and Elliott because roots of teacher research (Huberman, 1996). From the 1940s, Lewin developed the word action research to be able to mean research executed by scholar practitioners to improve their social situations. In the 1970s, Stenhouse emphasized that teaching needs to be based on research completed by teachers themselves as opposed to relying on outside sources for powering practice. Also Elliott developed an action research model that has a sequential circuit of action as well as reflection (Arhar, Holly & Kasten 2001).

So Teachers must not only appropriate science skills and knowledge; but also they must find ways to translate this finding out into what they do inside their classrooms. Hashweh (2003) recently outlined components in teacher professional development necessary to the process associated with accommodative change, or perhaps changes to contemplating and practice. Teachers use his or her insider perspective in educational settings to improve teaching and finding out, and typically these

approaches use a social justice focus in order that teachers shift their practice to improve access and fairness to quality teaching (Brogner, 2013).

Also many of such components can be obtained from research experiences: intrinsically motivated learners, critical manifestation of prior thinking, active construction associated with new knowledge by way of inquiry, and any social climate approving to collaboration as well as discourse (Kim & Kang, 2012). Additionally, research experiences provide the possibility for extended professional development for teachers. Supovitz & Turner (2000) have got indicated that professional development activities which can be longer than four weeks will promote change in teachers' practices as compared to activities of faster duration.

Teacher research can be categorized below five groups in overseas literature (Lin, Wang, Klecka, Odell, & Spalding, 2010): (1) survey research assessing teacher education programs reflecting "curriculum oriented view," (2) experimental and correlational research (and to some degree qualitative research) that aim to inquire about the relationship between teacher education programs or courses and the knowledge, attitude and skills teacher candidates gain reflecting "training oriented view," (3) quantitative, qualitative and mixed method research establishing relations between teacher education programs and the performance of students of teachers graduating from these programs, (4) qualitative research exploring teacher candidates' knowledge, skills and attitudes, and (5) "action research" completed by teacher educators by themselves classrooms showing new implementations regarding approaches. These kinds of approaches as well as methods reveal that teacher education is usually complex as well as multi-dimensional, in order that it cannot end up being studied by just one method or process (Zeichner, 2006).

Yildirim (2013) mentioned that education systems need to focus throughout teacher education research throughout these areas:

1. Profile of students coming to teacher education programs.

2. Profile of teacher educators and their impact on teacher candidates

3. Understanding of teacher education processes

4. Impact of pedagogical training on teacher candidates' development as teacher

5. Impact of content education on teacher candidates' development as teacher

6. Impact of general culture education on teacher candidates' development as teacher

7. Structure of teacher education curriculum

8. Impact of testing of teacher candidates on teacher education curriculum and processes

9. Organization and process of school experience (p. 3).

Although teacher research is sometimes referred to as action research. The two terms are definitely not synonymous. Action research is equipped with characteristics in normal with teacher research, for instance: it is normally conducted by users, it does definitely not espouse objectivity, it really is geared toward self-improvement and also improvement of practice, and it is self-critical inquiry (Arhar, et. al, 2001). On the other hand, action research implies that some actions will likely be taken as a result of the

research. A stated purpose of action research is "effecting positive changes inside the school environment" (Mills, 2000).

The gap of concern in the current approach is diverse in two methods. First, success in narrowing the gap seriously isn't defined with regard to achieving goals based on the university's favored principles but with regard to the teacher's beliefs and educational values, and their objectives. As a side note, it is additionally not focused on closing gaps based on other external authority sources, such as standardized data on student testing and also grade level efficiency. Second, the success seriously isn't measured by examining aspects of practice for conceptual regularity but by examining students' learning with the lens of the particular teacher's own educational goals (Wendy & Jackson, 2011). Thus, the teacher is empowered like a member of an established community of beginning teachers which has a shared focused on ''attending to issues of practice'' (Horn & Little 2010) in addition to being an individual with his/her own professional identity.

While teacher researchers frequently do roll out improvements to their own practice in light of the consequences of their research, their work is normally not generalized. Action research is a logical tool for working this gap. Action research permits an educator to ask into what is going ahead in his/her own educating in the particular setting of her own classroom with a perspective to enhancing his/her practice. Action researchers conduct their research with an eye toward promoting change with an eye toward advancing change in the past classroom level. In spite of the fact that teacher research is now and then alluded to as action research, the two terms are not synonymous.

3.TEACHER ACTION RESEARCH

Action research has long been viewed as an important pedagogical instrument in advancing practice-based learning with teachers. The utilization of Action research with teacher candidate and starting educators is expanding as of late, when contrasted with its long history of broad utilization with experienced educators (Brognar, 2013). Action research is a piece of a greater development towards a significant move in training that accepts educators are outfitted with the aptitudes, abilities, and research capacities to change the field of education. Cochran-Smith & Lytle (1999) explain this changing view of teacher research as: "teacher education and professional development can be both critical and knowledge-generating enterprises that alter the very idea of a 'knowledge base' for teaching and that function as challenge and critique of schools and schooling" (p.16).

Action research gives a context for teachers to safely investigate all facets of teaching, including associations, school culture, as well as identity. It is very important for teachers with an avenue in which to explore these facets of education because these types of facets directly have an effect on the day-to-day fact of teaching. Studying these routine facets of teaching, as well as more advanced pedagogical and philosophical questions, can influence school and education reform. While teacher research often do make changes to their own practice good results of their research, their work is typically not generalized.

Action researchers carryout their research with the eye toward promoting change beyond the classroom level (Tanzer, 2011).

Action research is usually a frequently used contemporary term within the discourse of teacher development. It is usually an investigative research design that emerges from the researcher and authentically follows established steps to arrive at new conclusions and compose lingering questions (Brighton, 2009). Price (2001) generally defines action research as "inquiry that may be systematic, intentional, collaborative, as well as democratic in intent and process" (p. 43). Price's study stressed action research seeing that promoting teacher learning through reflecting primarily about the integration of present field experiences with past personal experiences, with attention to links between pedagogy and research.

In action research both final result as well as the research process is vital. Throughout this method a teacher can improve his / her professional standpoint and teaching and acquire knowledge in research work (Tanzer, 2011). Action research trains teachers to execute independent studies, motivates them and trains them to read and vitally judge other studies working with similar issues. Teachers with experience of research work are usually more qualified to help transfer the findings of other studies into their own practice. Figure 1 showed a conceptual pattern of action research according to Brognar (2013).
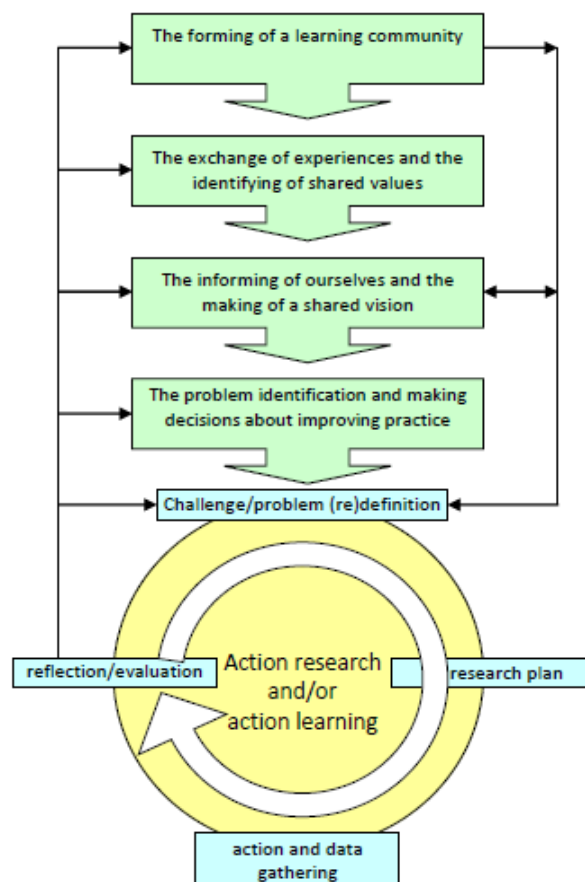

Figure 1. Conceptual pattern of teacher action research

Action research offers an opportunity for the teacher becoming a powerful agent involving change through investigating his / her own pedagogy or exploring a worry within their field of education (Barth, 2001). Quite, this work allows teachers to utilize their local data to inform their practice (Feldman & Minstrell 2000). Much more explicitly, this framing involving action research is rooted within the idea that specialized practice is inherently seen as inquiry and reflective dispositions involving teaching, with action research being a tool for creating these dispositions to help advance practice. Like this research attributes empirical evidence for the work involving scholars like Dewey (1933) on fostering reflective habits of considering education aims as well as Schon (1983, 1991) *on the art and science of reflection in and on practice*. Barth (2001) suggests "a precondition for generating craft knowledge is that we must reflect on practice and find in it. It is through reflection that we distill, clarify, and articulate our craft knowledge" (p.65).

4.ACTION RESEARCH AS A REFLECTIVE PRACTICE

First was Schön's thought of the reflective practitioner who actively observes children's conduct, listens attentively on their thoughts and sensations, notices their capabilities and tries to discover adequate methods, that may help their development. A reflective teacher permits her/himself to be surprised with what the child says or does, and manages with these unplanned situations in creative ways by using professional artistry. Schön considered that this is teaching in the form of reflection-in-action which involves thinking about "what we're doing as we do it, setting the problem of the situation a new, conducting an action experiment on the spot by which we seek to solve the new problems we've set" (Schön, 1987). To the reflective practitioner approach improvisation is much more important compared to deliberate and planned intent to fix particular problem.

Action research also provides teachers to be able to contemplate one's philosophy of education as a result of establishing a system for reflective practice. Through providing a systematic method to investigate one's beliefs, philosophies, and theoretical understandings connected with education. Reflective practice and knowing, "who may be the self that educates?" (Palmer, 1998, p. 7) is necessary to successful teaching. Ellison (2008) describes an action scientific study that also takes in on reflective practice and investigation from the identity of the particular teacher.

There is really a strong connection involving action research along with reflective practice (Vogrinc & Zuljan, 2009). Teachers who seek to further improve their practice are capable of doing so systematically over the model of action research. The process of action research can closely mimic the dynamic and responsive nature of teaching and learning, such as in the case of Price (2001) and the pre-service teachers conducting action research; "teachers shifted their research question as they experienced teaching. Their translation of theoretical ideas into practice was shaped not only by their interests, passions and understandings, but also by the context of the classroom in which they taught" (Price, 2001, p.55).

5.ACTION RESEARCH AND PROFESSIONAL DEVELOPMENT

Teachers in several stages with their careers can take advantage of action research. Teachers learn from one's individual pedagogical work, and for that reason, the capability to plan one's individual professional advancement. This demands, in particular, the openness and level of responsiveness to feedback info on work, together with cooperation in the professional environment (Vogrinc & Zuljan, p. 54).

6.CRITIQUES OF TEACHER RESEARCH

Zeichner & Noffke's (2001) report on action research helps put this study in just a larger circumstance of teacher research along with action research. They outlined the number of historic critiques of teacher research, like the view that teachers are not capable of doing research, teachers' jobs help it become nearly impossible to find time to research, teachers can not overcome preconceptions within their research, and teacher research could possibly be potentially detrimental to students since it undermines his or her education as a result of distracting his or her teachers. These critiques associated with teacher research highlight the low-status associated with teachers along with their perform. In reaction to these criticisms, Cochran-Smith (2005) provides highlighted the value of local expertise in practice, as well as the global application of that knowledge. Through various sorts of action research, practitioners offer you important insider knowledge that is often lost from other designs of educative research (Martell, 2014).

Cochran-Smith & Lytle (1999) describe a critique of "teacher research" (a term that also includes "any form of practitioner inquiry that concerns systematic, purposive, and self-critical inquiry about one's do the job in training including steps research" [p. 22]) that they refer to as "the know-how critique or knowledge critique" (p. 20) which in turn "fundamentally issues and the disagreements can generate understanding of teaching, learning, and schooling unless it's born of any science 'analogous to the science that will yields elegant knowledge' (Fenstermacher, 1994)" (p. 20). This argument seems to echo the nearly archaic classic views involving education that will distinguish the role involving teachers seeing that imparting knowledge to students who are in flip vessels to be filled together with learning.

Another critique of "teacher research" considered "the strategies critique" simply by Cochran-Smith & Lytle (1999) challenges the flexibility of teachers to actually conduct valid research through deep within their professions: points out that understanding events when one is a participant in them is excruciatingly difficult if not impossible, thus challenging the possibility of the teacher functioning as a researcher in his or her own school or classroom setting" (Cochran-Smith & Lytle, 1999, p.20).

Cochran-Smith and Lytle (1999) go over "the ends critique" involving teacher steps research which suggests that tutor research is actually "benign" (p. 20) rather than capable of making powerful political or cultural change.

7.STUDY 1

The first study centered on the extent to effectiveness of educational research in teachers' instructional practices and how educational research might be made more applicable to teachers. In other words, is research considered as urgent demand by teachers, and, if so, what, if anything, can the

producers of research at universities and elsewhere do to ensure that what they are supplying meets this demand?

7.1.Methodology

While this study examined recent teachers' conceptual comprehension of teacher research to be a professional progress, we opt for methodology that could allow to access to the thoughts and also ideas with this concept. Many scholars (Janesick, 1998) have described that qualitative methodology permits a detailed account of an informant's experiences and suggestions.

To further our understanding of this issue, we conducted 3 focus groups and they were asked the questions according to Drill, Miller & Behrstock-Sherratt (2012) such as:

• Do you seek out research? Why or why not?

• What comes to mind when you hear the word *research* in an education context?

• What sources of research do you rely on? How do you judge source credibility?

• What barriers prevent you from using educational research?

• What type of research is useful? What would make using research more appealing?

• What type of preparation for using research have you received?

For the focus groups, to capture typical teachers, researchers choose 18 teachers from various schools in different areas in Isfahan, Iran. The focus group sessions took place at schools and district offices in April 2015, before or after school. Participants ranging from 29-38 years old with 3-16 range in years of teaching experience and all of them were female. The focus groups were recorded and transcribed. The data were analyzed inductively, which allowed the findings to emerge from frequent or dominant themes and subthemes in the data. The transcripts were coded with the content analysis process that involved identifying and re-identifying emerging themes from interviews. The responses then were coded and grouped by theme. All data related to a particular theme or subtheme were read and reread to fully capture the essence of the discussion.

7.2.Findings

Based on data gathered in the focus groups, several important findings emerged around the ways teachers use teacher research, the forms of research that teachers find best, and a few of the barriers that prevent professors from accessing and using research.

1.   Despite conflicting responses, teachers are not opposed to accessing and using research. The tension between using educational research to improve education and the perceived gap between what researchers provide and what practitioners need emerged as a common theme in all 3 focus groups. Teachers who had positive reactions to research viewed that as information regarding what works in the classroom. Other participants also suggested that this research seems stripped away from everyday school realities. This sentiment was a suitable when teachers believed that this research climate is just not an accurate representation regarding actual classrooms.

2. Teachers apparently had a positive approach to research in contracting with problems and concerns, but research was in the second priority after verbal and professional consultations with valid resources. Before teachers examine research to address clearly explained issues, they may turn to help colleagues, or the Internet and other resources. Even however the teachers stated that they often do not have or help make time for educational investigations.

3. One of the key factors for doing research for these teachers is the applicability of studies for their students and classrooms. Some teachers suggested the research setting is indeed controlled that they would be unable to replicate this system or practices into their own classes,

4. Similarity between teacher research and teacher action research in the eyes of teachers was the important identified theme. As seen from the interviews, the teachers in focus groups had heard and known an idea of classroom-based inquiry methods, such as action research, teacher research and teacher journal writing. However, many teacher research scholars argued that teacher research is not quite the same as action research. In this vein, many teachers couldn't differentiates between the elements and types of research terms.

5. Teacher research for most participants referred to publishing a paper in academic or official journals. They critiqued this criteria and mentioned that teacher research should emphasis practical application for the teachers themselves. Sharing in formal ways is not an essential part of teacher research. Stenhouse (1981) emphasized teacher research as "systematic, critical inquiry made public". However, the forms of sharing this information are not limited unlike traditional types of research and can be published and presented anyway and anytime (Kim & Kang, 2012).

6. Large class and lack of time were the major concerns of teachers in using action research such as classroom-based inquiry to improve their teaching as well as to understand their students better and more.

8.STUDY 2

Study 1 indicated that teachers are willing to use research if is relevant to their real classroom contexts, and is presented in way that respects and values their time. Looking at these criteria, it is essential to identify the key factors that provided teachers with research in useful and practical ways. One way is especially promising a professional development program conducted by the Martell (2014) titled as *District-Based Teacher Research Course* to use action research as empowering professional development. So in the second study, the action research method used to examine the researchers practices for providing an opportunity to practitioners to learn from their work by critically and systematically examining it.

8.1.What is the District-Based Teacher Research Course?

Martell (2014) stated that *District-Based Teacher Research Course* is a from a position of "inquiry as stance" (Cochran-Smith & Lytle, 2009), which as "instrumental in the sense of figuring out how to get things done, but also and more importantly, it is social and political in the sense of deliberating about

what to get done, why to get it done, who decides, and whose interests are served" (p. 121). According to Martell (2014) researcher take on the dual role of teacher educator and researcher in this practice. Martell (2014) suggested that the goal of this course is developing teachers' ability to design and implement teacher research studies in their classrooms, including their ability to ask questions about their practice, their classroom, and their students (p. 6). The course was organized around five themes: introduction to teacher research, forming questions and developing a conceptual lens, research methods, working sessions and peer support, and sharing work inside and outside school communities (Martell, 2014, p. 6).

8.2.Methodology

Using a case study approach, we followed sessions of the *District-Based Teacher Research Course*. Through surveys before and after the course, interviews, focus groups with 10 teachers, we explored why the participants chose to take the course, the degree to which they use research to inform their instructional practices, and the extent to which course participation influenced their research use.

Data collection involves interviews with teachers and content analysis from (1) open-ended inquiries to explore the particular teachers' perception in the characteristics of teacher's professionalism, and (2) fixed-response forms about the DBTRC. This course was taught in the public high schools in Isfahan, Iran, and it's participants included 10 teachers that were selected randomly from different areas. Their teaching experiences ranged from 3 to 16 years and all of teachers were female. The course met for 2 hours a week over 4 weeks.

8.3.Findings

1.   *Research skills and attitudes:* Participants had positive reactions to teacher research professional development course. The teachers could develop their research skills, which was evident in their final projects and papers. This success included their use of methodology and ability to analyze data, problem statement, designing research methods and conclusion. However some teachers mentioned that this kind of research is not a scientific or perfect research considering various limitations in real education settings.

2.   *Effects on reflection-on-action:* Participation in this targeted professional development course increased teacher reflection and knowledge about student and stated that experiencing the course lead them to more strategies for classroom management. Also they valued the important role of teacher research in improving quality of teaching. So according to Court (1988) that stressed the concept of reflection-on-action instead of Shon's (1983) reflection-in-action concept, we have to focused on reflective practice in teacher's daily activities particularly teacher researches.

3.   *Effects on teacher empowerment*: Participants defined teacher empowerment as "Be able to do something that will change their performance" and admitted that teacher professional development through teacher action research is a key factor in teacher empowerment.

4.   *Barriers of teacher research or teacher action research:* Although the participants enjoyed the course and felt as if they gained new knowledge and strategies for working with students, most of the teachers did not indicate that the course influenced how often they turn to research as a regular practice

or their intentions to seek out research on their own after the course ended. Rather they preferred to solve problems through their personal and professional experiences. So despite understanding of action research and it's benefits for improving educational goals, teachers had less emphasized using research regularly to inform practices. The participants mentioned that the one possible reason for this withdrawal is various teacher's limitations in educational settings such as lack of time and valid resources, ignoring the teacher research efforts and the lack of official supports in doing practical researches in schools.

9.DISCUSSION AND PRACTICAL IMPLICATIONS

So for educational research in order to enlighten along with improve teachers' train, certain changes need to be made by educational researchers as well as other stakeholder communities. Based for the findings from the current two studies, various recommendations are usually presented with regard to researchers, teacher preparation plans, and university administrators and policymakers.

At the end, it seems that Iranian teachers can reconsider using research as a method of professional development as they were involved with many different types of research to raise their educating and teaching. One critical element they must highlight is usually to reflect their very own practice to have improved by means of research. Most educators thought it had been challenging to know how getting involved with research can be quite a different sort of professional improvement. According to (Kim & Kang, 2013) because in-service teacher educational system is relatively centralized and school culture is hierarchical, administrators assume controlling teachers' professional development is necessary, rather than let them initiate their own professional development through reflective practice. Nevertheless, it concluded that teachers were willing to use teacher research with regard to professional development but there are serious limitations in doing a practical research. Results indicated that teachers worked well hard to become good teachers and needed more professional guidance to help them for being better teachers. Obviously either a small amount of attention to be able to teacher research will supply a different insight to allow them to understand teacher research as a great professional development application.

Previous researches suggested precisely how teacher research might be a crucial tool throughout professional development for both pre-service along with in-service teachers in different contexts (Yildirim 2013; Kim & Kang, 2013).

Administrators along with education policy makers must evaluate teacher research as one of the criteria throughout teacher assessments, self-supervision, along with promotion process (Drill et al., 2012). If teacher research became among criteria intended for teacher evaluate process, teachers will be willing to accomplish the teacher research, because it would be more valuable and adequate for teachers instead of just doing mandatory teacher workshops along with courses as well as official stories requirements.

Research on teacher education is important with regards to accumulation associated with scientific knowledge and delivering insights and recommendations for restructuring efforts in this region. There has to be a near relation concerning teacher knowledge research as well as the efforts to be able to

restructure instructor education applications. Unfortunately, the change efforts inside teacher education are not completely based on research findings; therefore, some of the initiatives have brought surface level changes without understanding the deep problems influencing the whole system. The numerous attempts, testing and also reforming teacher education programs out of faculties associated with education are many of the proposals to overpower teacher knowledge, but never in line with research results. As a result, teacher educators should establish a research-based connection between good quality teacher knowledge and improved student achievement.

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