

A Turkish EFL teacher's change processes through an OPD program: a case study

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Abstract: In this paper, we present an analysis of the change processes of a Turkish EFL teacher who participated in an Online Professional Development (OPD) program that included online lesson study procedure and webinars. The aim of the study was to uncover the short term and long term changes of this teacher through the use of Clarke and Hollingsworth's (2002) Interconnected Model of Teacher Professional Growth (IMTPG). As part of the OPD program, this teacher attended six webinars about language teaching methodology and the use of technology in language teaching. In a period of 13 weeks, she also became part of online lesson study procedure with three other teachers. To this end, they met online once a week to do lesson planning for a research lesson and to later discuss about the effectiveness of that lesson by viewing its video recording. In this case study, the data collection tools comprised a background questionnaire, interviews, group meeting extracts, pre-and post-observations, lesson plans prepared by the group, video recordings of the research lessons and group meetings. The findings showed that various short term changes were initiated by different domains including personal domain, the lesson study discussions and webinars in the external domain with various pathways of change. More long-lasting changes, on the other hand, came about when she integrated her learning from the webinars into her classroom teaching and reflected on the student outcomes of these new practices, which promoted changes in her earlier beliefs and attitudes towards some aspects of teaching. It was also revealed that the changes in her cognition and teaching behavior were related to her increased knowledge and skills about incorporating web 2.0 tools into language classes.

Keywords: Online professional development, webinar, online lesson study, teacher change, Interconnected Model of Teacher Professional Growth

1. Introduction

Conventional approaches to PD which include one-time training efforts with few examples of effective teaching and few opportunities for teacher collaboration and reflection have been maligned for their inefficacy in leading to teacher change (Bickerstaff & Cormier, 2015). More constructivist forms of PD which are situated in teachers' daily teaching practice and view teachers as 'active and reflective practitioners' have been shown to contribute to teacher development (Wideman, 2010, p.4). With a common goal, collegial support and activities that focus on student learning, teachers are found to be better positioned to alter their teaching practices (Prenger, Poortman & Handelzalts, 2017). The observations from the extant body of research in PD also point out that teachers feel the need to 'experiment with new instructional strategies and materials' in socially bound professional learning communities (Schipper, Goei, de Vries & van Keen, 2017).

In the last decades, the online PD programs have been shown to meet many of these teachers' professional needs (Dede, Ketelhut, Whitehouse, Breit & McCloskey, 2009). When OPD appears in the form of online professional learning communities, it presents a wealth of advantages. First and foremost, the teachers have a chance to get connected with other teachers having similar problems (Lieberman & Pointer Mace, 2010), to engage in joint enterprise for improving their practice (Lantz-Andersson, Lundin, & Selwyn, 2018) and to perpetuate these activities in an ongoing manner by transcending time and place limitations (Powell & Bodur, 2019). They can also have access to various

resources including expert knowledge thereby meeting their learning needs as professionals (Blitz, 2013). In the current study, an OPD program was designed based on an online professional learning community model with a consideration of the key features of effective professional development. To this end, online lesson study procedure was implemented with a group of Turkish EFL teachers along with a series of webinars offered to these teachers (Yursa & Silverman, 2015). Wideman (2010) argues that despite the abundance of studies on OPD, very few studies had a direct assessment of the changes in teachers' cognition and classroom practices after their participation in an OPD program. To address this research gap, this study sets out to examine how an OPD program which integrates online lesson study with webinars contributes to a language teachers' development.

2. Literature Review

2.1 Lesson Study

Lesson study originated in Japan early in the 1900s (Cheung & Wong, 2015; Fernandez & Yoshida, 2004) and since then became widespread in many countries all over the world. (Clivaz & Ni Shuilleabhain, 2017) In LS, generally, small groups of teachers (usually four to six teachers) (Fernandez & Yoshida, 2004) work collaboratively to set goals for student learning and co-plan research lessons that target these goals. One of the teachers teach the lesson in his/her own classroom and other teachers act as observers and collect data on student learning. In post-lesson discussion, they reflect on the data to improve the lesson and if possible and teach the revised lesson in one or more classroom (Lewis 2002; 2009). LS started to be adopted worldwide as a viable means for supporting teachers to improve their professional knowledge and practices. For instance, the World Association of Lesson study founded in Hong Kong in 2005, has 'members from over 60 countries' now (Xu & Pedder, 2015). Some countries took initiatives to conduct lesson study nation-wide as a school improvement policy or fostering reform-minded teaching (e.g. Hadfield & Jopling, 2016). Extensive studies conducted in different parts of the world such as US (Fernandez, Cannon, & Chokshi, 2003), UK (e.g. Cajkler, Wood, Norton, & Pedder, 2014), Australia (e.g. Hollingsworth & Oliver, 2005), China (e.g. Yang, 2009) Indonesia and Malaysia (White & Lim, 2008) among many others (Doig & Groves, 2011) also reflect the growing interest for LS all over the world. In their review of studies on LS, Xu and Pedder (2015) report many studies which indicate improvements in teachers' subject content knowledge, pedagogic knowledge, pedagogic content knowledge and knowledge about pupils as a result of their learning from lesson study procedure (Xu and Pedder, 2015). Despite the abundance of research on LS, an online version of LS has received only scant attention in literature. Only two studies mentioned how they implemented online lesson study with a group of teachers (Sharma & Pang, 2015; Yursa & Silverman, 2011). However, as a limitation, only self-report instruments were used and teacher change was not within the scope of these studies.

2.2 Online Professional Learning Communities

Online community is defined as 'a group of people' who have 'common interests and shared goals' and utilize online technology for communication in lieu of 'face-to-face interactions' (Hew, 2009). The idea of online community, which bolsters the sociocultural approaches to learning (Mackey & Evans, 2011) arises as a relatively new professional development model (Barab, Kling & Gray, 2004). Learning communities are characterized by 'explicit learning goals' and are aimed at achieving certain pre-defined outcomes (Whitehouse, McCloskey, & Ketelhut, 2010).

Wideman (2010) indicates that although OPLCs are around at least for a decade, the number of studies that examine their effectiveness and sustainability are quite limited. Most of the research centres on a description of teachers' experiences through the use of self-reports (Blitz, 2013) whereas the impact of collaborative teamwork on teachers' processes of learning are quite unstudied. There are also very few studies that looked at changes in teachers' classroom practices as an outcome of their participation in OPLC or the impact of community activities on student learning (Wideman, 2010). This study, which focuses on teachers' development of new knowledge and skills through an OPD program also aims to fill in the gap in the literature related to the effect of OPLCs on teachers' knowledge development and pedagogical practices.

2.3 Interconnected Model of Teacher Professional Growth

In IMTPG, Clarke and Hollingsworth (2002) proposes four different domains where change can occur: the personal domain (PD), the domain of practice (DP), the domain of consequences (DC) and the external domain (ED) (See Figure 1). The personal domain consists of teachers' knowledge, beliefs and attitudes. When new knowledge, beliefs and attitudes are acquired, there is a change taking place in this domain (Voogt et al. 2011). The domain of practice refers to teachers' professional experimentation. This experimentation occurs when teacher try out new practices. The domain of consequences is related to the inferences teachers draw from their practices about themselves and their students as affected by their value system' (Witterholt, Goedhart, Suhre, & van Streun, 2012). In order for a change to happen in this domain, the consequences need to be salient to the teacher. For example, when a teacher observes improvement in student outcomes consequent to the use of a new teaching practice, this can be perceived as salient by the teacher and change this domain. Finally, the external domain refers to the 'outside of the teacher's personal world' (Witterholt et al. 2012) and is composed of any external source of information that yields change such as meeting with colleagues, attending professional seminars, etc. There are two mediating processes that enable a change between the four domains: enactment and reflection. Enactment is putting new ideas into action by trying out these new ideas or practices as professional experiments (Wang, Kim, Lee, & Kim, 2014). Reflection, on the other hand, refers to teachers' evaluation of their' students' learning outcomes' and their self-analysis of their 'teaching beliefs, attitudes and knowledge' as a lens for examining the effectiveness of the enacted pedagogical practices (Hung & Yeh, 2013, p.154). The processes of enactment and reflection have the primary function of enabling multiple pathways between the domains.

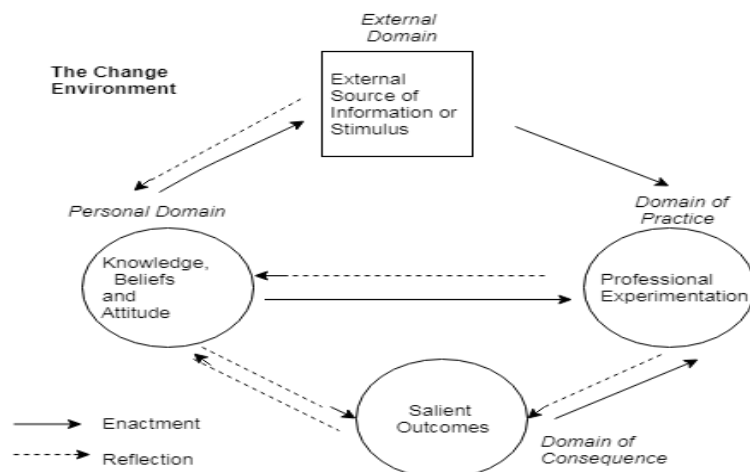


Figure 1. The interconnected model of teacher professional growth (Clarke & Hollingsworth, 2002)

According to Clarke and Hollingsworth (2002), these pathways can lead to two types of teacher change, which are either temporary changes or more lasting changes. Called as change sequence, the temporary changes represent the learning processes, the effect of which continues for a short time on teachers' mentality and practices. When the change in any of the three domains (domain of practice, personal domain, domain of consequence) is long-lasting, it is seen as an indicator of professional growth and the change sequence is turned into a growth network. Growth network is a more meaningful outcome of professional development initiative compared to short-lasting effect of a change sequence (Clarke & Hollingsworth, 2002).

3. Methodology

3.1 Research Design

As the research design, case study is used in the current study. Case study refers to “the in-depth study of instances of a phenomenon in its natural context and from the perspective of the participants involved in the phenomenon” (Gall, Gall & Borg, 2003, p. 436). It is one of the most frequently used qualitative research methods (Borg, 2003) which provides a detailed exploration of a case through the use of multiple data sources (e.g. interviews, observations, documents, etc.) (Creswell, 2007). In this study, the case consisted of a Turkish EFL teacher who participated in an OPD program. To identify the unique pathways of change experienced by this teacher, the following research questions guided the direction of this study:

1. What sequences of change, mediated by reflection or enactment processes are observed for the Turkish EFL teacher participating in the OPD program?
2. Which growth networks are identified for this teacher?

3.2 Case participant

As revealed by a background questionnaire administered at the beginning of the study. Sally had her undergraduate degree in Translation and Interpreting and held MA degree in Curriculum and Instruction. She had 15 years of teaching experience apart from working in Research and Development Division at Ministry of Education. Sally took part in some PD activities in Turkey and she travelled abroad for some Erasmus projects. At the beginning of the OPD program, she expressed her desire to improve her teaching skills since she was not a graduate of English Language Teaching Department and felt the need for professional development. She followed some teacher, project or graduate research groups in Facebook.

3.3 Overview of the Online Professional Development Program

This OPD program which lasted for 13 weeks between November 2017 and January 2018 consisted of two main activities for the participating teachers, which were the webinars and online lesson study procedure. As part of a Marie Curie Project that targets language teachers’ professional development in Europe, six webinars on different topics were prepared by the researcher and her academic advisor and piloted with the teachers in the online lesson study group. They focused not only on information delivery but also on some hands-on practice. The topics of the webinars included reflective practice for language teachers, innovative techniques in teaching English I, II, Using New Technologies in Language Teaching I, II and III. In these webinars, the focus was on language teaching methodologies and the web 2.0 tools that can be used in language classes. WiziQ was used as the webinar platform.

The online lesson study component of the OPD program, which was implemented once a week throughout the study was prepared with some adaptations made to Dudley’s (2015) version of lesson study. In online meetings held in WiziQ, the teachers exchanged ideas about lesson planning filling in the lesson study proposal and the research lesson planning, observation and discussion sheet collaboratively with the use of Google Docs. The focus of the research lessons was three case pupils and the teachers did the lesson planning with these three students in mind. The co-planned lessons were taught by one of the teachers and some small-data were collected from the students including interviews or student work samples. Later the video recordings of these lessons were shared with the other teachers with the use of Google Drive. Following the implementation of the research lesson, the teachers had a post lesson discussion in which they referred to their observations about the efficacy of the lesson for student learning. Based on the teachers’ joint contributions, the research lesson was revised and taught by another teacher in the group. After the second implementation, the group held another post-lesson discussion in order to evaluate the impact of the lesson on the students. This LS procedure was completed three times in the online lesson study group.

3.4 Data Collection Tools

Since it was a case study, various data collection tools were utilized in order to provide an in-depth understanding of the case (Creswell, 2007). Firstly, a background questionnaire was applied to the teacher before the OPD program to get some information about her professional background and about the activities she does for her professional development. She was also interviewed three times in total in that each interview took place after two research lessons in each LS procedure were completed. 4 classes of this teacher were also observed before and after her participation in the program. Finally, the recording of the group meetings and lesson plans prepared by the group were also included as a data collection tool.

3.5 Data Analysis

As the analytical framework, Clarke and Hollingsworth's (2002) model of Interconnected Model of Teacher Professional Growth was used for investigating the learning processes of the teacher attending the OPD program. However, some adaptations were made to this model due to the idiosyncratic features of the program. Firstly, the external domain, which refers to any external source of information provided to the teachers, was separated into two parts as 'webinars' and 'lesson study discussions' (LSD). The webinars served to represent the information presented to the teachers about language teaching methodology and web 2.0 tools for language classes. The lesson study discussions, on the other hand, referred to any peer-to-peer learning arising in group meetings when the teachers exchanged ideas with each other.

Secondly, some elaborations were made on the Domain of Practice to include the practice-oriented activities in lesson study procedure. Hence, Domain of Practice was divided into 'lesson planning', 'teaching', 'revising' and 'reteaching' which are the components of LS procedure and 'common teaching practice' outside these LS components. The common teaching practice was included in this domain in order to display professional experimentations in teachers' own classes as distinct from the LS procedure.

Data analysis process was initiated with the transcription of all data. Through constant comparison method (Merriam, 1998), all data were coded with the use of the coding scheme adapted from Zwart, Wubbels, Bergen and Bolhuis's (2007) study in order to uncover the changes in the teacher's cognition, beliefs and her common teaching practices after her participation in the OPD program. The frequency of the identified change sequences were provided for the teacher. Later, the pathways of change among the domains were identified with the use of Justi and Van Driel's (2006) criteria. The distinction between a change sequence and a growth network was made according to Clarke and Hollingsworth's (2002) descriptions in which growth networks are 'explicit evidence of lasting change in practice or in teacher knowledge or beliefs' (p. 958) unlike change sequences representing short-term changes. For inter-coder reliability as a means of ensuring trustworthiness, all data were also coded and analyzed by a colleague of the researcher. Only small differences were detected in two sets of analysis and an agreement was reached for these differences. Member checking was also done in that the researcher sent her analysis to the teacher and made some changes in her analysis after getting some feedback from the teacher.

4. Findings

The results pointed at many instances of short term learning on part of Sally which were represented by various change sequences initiated by different domains (See Table 1). It was found that most of the change sequences identified in Sally's data were initiated by the webinars in External Domain and Domain of Practice. It was seen that the webinars in External Domain led to change sequences especially when the ideas presented in the webinars were integrated into the research lessons. In addition, the Domain of Practice was also an efficient information source for the teachers since it provided the teachers with the opportunity to observe the effect of the research lessons and each other's teaching practices and techniques. The effect of the lesson study discussions in External Domain and Personal Domain were less paramount for the teacher since teacher contributions to the lesson study

discussions were not even with some teachers having few contributions to the discussions for lesson planning or revising.

Table 1

The frequency of the entry points of change

Domains	Frequency
Personal Domain	3
External Domain (webinars)	6
External Domain (lesson study discussions)	4
Domain of Practice	10

4.1 Change sequences initiated by Personal Domain

The change sequences initiated by Personal Domain were represented in two ways with only a slight difference in the pathway of change. In the first one, Sally offered a particular activity to the group as an active teacher in group meetings (PD→ED) and it continued with the acceptance of that idea by the other teachers for the research lesson (ED→ DP (lesson planning)). Following the teaching of the co-planned lesson, she reflected on the general quality of the lesson (DP (teaching) →PD). In the other change sequence, the ending point was Domain of Consequence in lieu of Personal Domain as the only difference. To illustrate the first one, in group meeting one, Sally suggested using Kahoot in the first research lesson: “We can use Kahoot at the end of the lesson. I use it for revising vocabulary” (Source: Group meeting 2). Kahoot is integrated into the lesson plan and in group meeting three, she evaluates the lesson as follows:

I have seen that Kahoot might be troublesome in some classes. The internet problems in the class culminated in utter chaos. Not sure it is good to use all times. It could have been better to think of a b plan when using technology in case of any technical problems. (Source: Group meeting 2)

4.2 Change sequences initiated by External Domain

The findings indicated that there were three different change sequences initiated by lesson study discussions or webinars in the External Domain. The first change sequence represented a reflection process on the learning that comes about as a result of the teacher’s participation in the lesson study meetings (ED (LSD) → PD) or in the webinars (ED (webinars) →PD). In the following quotes, for example, Sally indicated that holding lesson study discussions with colleagues was of great benefit for her:

I believe these kinds of meetings are very beneficial. Even if you don’t learn something new in every meeting -I believe I have learnt many new things though- it definitely has many contributions for you. At least, it helps you to think about your practices and what you can do about it. It is a thought- provoking process. (Source: Interview 1)

In a similar vein, the quote provided below illustrated Sally’s reflection process on the content covered in the webinars. She stated that she had increased knowledge about using web 2.0 tools in language classes as a consequence of her learning from the webinars:

In the webinars, I have learnt many Web 2.0 tools. Most of the tools covered in the webinars were new to me. In each webinar, I found many things to do research about. I started to search for other technologies. I thought more about what I can do with these technologies. (Source: Interview 2)

Another change sequence was initiated when the group members suggested some activities and some of these ideas were put into practice in research lessons (ED (LSD) → DP (lesson planning). Following the teaching of the research lesson, the teachers reflected on how this lesson turned to be effective in terms of student learning outcomes (DP (teaching)-DC). In group meeting one, for example, Lucy proposed a warm up activity to the group as seen below:

For the first lesson, we can use a trailer to attract the students' attention as a warm up activity. We can ask the students some questions after watching the trailer to get them to guess the topic of the reading passage. (Source: Group meeting 1)

Upon Lucy's suggestion, the group decided to find a trailer to use before the reading passage about Agatha Christie. In the group meeting in which the teachers evaluated the class implementation, Sally reflected on that lesson as below:

The idea of using a trailer as a warm-up activity worked well in the classroom. I did not try it before. The students' interest in the reading passage increased since they were wondering about what to read. Doing some speaking about the trailer was a good introduction to the lesson for the students, I think. (Source: Group meeting 3)

Finally, Sally often transferred the know-how she gained in the webinars to her classes in an immediate fashion as different from the other teachers (ED (webinar) → DP (common practice). The integration of new practices was followed by her reflection on the student outcomes of these lessons (DP (common practice) →DC). For example, in the fifth group meeting, in which teachers were discussing about the activities to be used in the forthcoming lesson, Sally talked about how she employed the treasure hunt activity she learnt in the webinars in her own class. In her reflection, she also explained the increased student interest in the lesson as given below:

I used QR code and treasure hunt game in one of my classes. I was teaching present tense. I prepared five questions and qr codes for each of them. I posted the qr codes on different parts of the school. I chose a leader from each group. There were seven groups in total. Some instructions on how many questions they needed to answer appeared when they scanned the qr code. They answered the questions as a whole group. The activity was very nice, but chaotic, at the same time. The students had so much fun but when it is a crowded class, it is not quite possible to get rid of the noise. (Source: Group meeting 5)

4.3 Change sequences initiated by Domain of Practice

There were two different change sequences initiated by Domain of Practice. The first of these included a reflection process on the student outcomes of class implementations in research lessons (DP (teaching) →DC). This can be seen in the following quote from a group meeting:

I really liked to see that doing individual listening instead of whole class listening can work well in the classroom. In the lesson, the students were able to concentrate better and did not get distracted as they did the other times. (Source: Group meeting 10)

The other change sequence included a reflection process on the student learning or motivation observed in the research lessons (DP (teaching) →DC) which was followed by a change in teachers' previous cognitions or beliefs about teaching or learning (DC→ PD). This change sequence is apparent in the following group meeting extract. Here Sally evaluated the consequences of the research lesson in terms of student outcomes by comparing it to a more traditional lesson. Later, her realization about the favorable outcomes in the lesson led her to make new decisions about trying out a different approach to teaching listening in her own classes:

I really liked to see that doing individual listening instead of whole class listening can work well in the classroom. In the lesson, the students were able to concentrate better and did not get

distracted as they did the other times. It is a pretty good practice we can use in our lessons. I plan to use it sometimes. (Source: Group meeting 10)

4.4 Growth Networks

The results of the study demonstrated that there was one particular pathway of change identified for Sally which represented long-term changes in her cognition and teaching practices. This growth network was initiated when Sally incorporated the newly learnt web 2.0 tools introduced in the webinars into her common teaching practice. Consequent to her implementation of that new teaching practice, she reflected on the favorable student outcomes, which resulted in a change of her prior cognition about teaching.

To illustrate, in the third interview, Sally talked about how she integrated Padlet in the fifth webinar into her own teaching. In the post-observation data, she was also seen to use Padlet for a writing activity in the classroom (ED (webinar) → DP (common practice)). Evaluating the lesson, she first referred to the effects of using Padlet on students' writing performance (DP (common practice) → DC). Second, she explained her intention to use it in further lessons (DC → PD).

In class, I sent my students a padlet link and they did writing activity about the topic we covered that day. They really liked using Padlet. They enjoyed looking at their own writings and those of their friends. This time, they were more careful about grammar and they wrote more enthusiastically than they did other times. I believe when Padlet is used, they give more attention to the writing activity and the product is better compared to the times when classical methods are used. I will keep using it. (Source: Interview 2)

As another finding, the analysis of the interviews and the group meetings also demonstrated that the changes she made in her classroom practice during the online PD program were centered not on language teaching methods or techniques but on the integration of web 2.0 tools. This finding was reaffirmed in the pre- and post- observations which showed that she maintained her common teaching practices consequent to her participation in PD. She only started to integrate more technological tools as the only difference between pre- and post-observations.

5. Discussion and Conclusion

The findings of the study demonstrated that different domains with the joint effect of the mediating processes of enactment and reflection had an influence on the participating teachers' development in the OPD program. The contextualized research lessons in which practice-focus and collegial sharing were paramount were found to contribute to teacher learning (Xu & Pedder, 2015) affirming the value of online lesson study for teacher professional development (Sharma & Pang, 2015; Yursa & Silverman, 2011). Additionally, webinars focused on web 2.00 tools served to increase the teacher's technological know-how and motivated her to use these tools not only in research lessons but also in her own classes.

Despite the presence of change sequences with different entry points, all of the long-lasting changes in the teacher's cognition and teaching behavior were found to be initiated by the webinars in the External Domain. The teacher integrated the newly gained information from the webinars into her regular practice. This was followed by her reflection on the student outcomes of the lesson, which resulted in a change in her earlier cognition and beliefs about teaching. As an important finding, these more permanent changes were found to be related to the teacher's increased knowledge and skills about incorporating web 2.00 tools into language classes. As an active group member, she was a teacher who already used some tools in her classes, which can account for her success in integrating new practices into her teaching. This finding could also be due to her positive attitude towards technology use in language classes (vanOlphen, 2007) since not all teachers are able to implement the teaching techniques introduced in the webinars in their own classes at satisfying degrees of success (Mai & Ocriciano, 2017).

The absence of any growth network initiated by lesson study discussions in the External Domain showed that collegial learning was not intense enough to bring about long-lasting changes in this teacher. It is possible that the lesson study meetings were not enough to create cognitive conflicts

for this teacher which are considered necessary for teachers to change their firm beliefs about teaching and student learning (Clarke & Hollingsworth, 2002). It is also likely that the online lesson study group was not able to create a collaborative dialogue among the teachers as a typical problem in professional development programs (Akiba, Murata, Howard & Wilkinson, 2019). It is anticipated that the low level of social engagement and real collaboration within the group can be due to the lack of a facilitator who can interfere in group interaction and sustain a 'regime of participation' (Henderson, 2007). As an implication of the study for future OPD efforts, therefore, a facilitator can be included in the online lesson study group as a moderator of teacher discussions. Moreover, webinars can be provided to the teachers (Blitz, 2013) in OPD programs along with the opportunities to test out the newly gained information in teachers' classroom practices and to reflect on the student outcomes of these implementations. Additionally, since reflection on student outcomes arose as an important means to teacher learning, it can be asserted that further PD efforts should focus on developing teachers' reflection skills and help them gain better understandings of their students' thinking. Finally, due to some limitations of this study related to the short duration and few number of cases, further research can examine the development of more teachers in a longer period of time.

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