Teacher Learning in a Teacher Inquiry Community: Impact and Interference

Introduction

According to Hawley and Valli (1999, p. 141) one of the essentials of effective professional development is the provision of opportunities that not only relate to the needs of the individuals but also "for the most part organized around collaborative problem solving." This is supported by Little (2003, p. 913) who explains that to improve teaching and learning, teachers need to collaboratively "question ineffective routines, examine new conceptions of teaching and learning and engage effectively in supporting one another's professional growth." Individual reflection and inquiry on practice might not achieve similar results as when teachers reflect on and inquire about practice in a group. Collaborative teacher learning forces teachers to make their professional experience public and it provides opportunities for members to "re-vision and re-interpret" experience from others' point of view (McCotter, 2001, p. 702). In collaborative initiatives, teachers work together to address issues on common instructional concerns which facilitates the identification of both causes and solutions to problems. Such effort encourages "generative growth and sustainability of changed practice" (Franke, Carpenter, Levi & Fennema, 2001) as learning takes place within conversations that involve "descriptions of practice, attention to evidence, examination of alternative interpretation" (Feiman-Nemser, 2001, p. 1042-1043). It is through this complex process that teachers connect course objectives to pedagogical aspects of teaching, question their practice, challenge their assumptions and scrutinize the process of learning taking place within their classrooms.

A number of studies on collaborative teacher inquiry have reported positive findings on its value in fostering teacher learning and in improving teachers' instructional practice (McCrockett, 2002, Snow-Gerono, 2005). However, there is limited evidence that teacher collaborative inquiry could lead to changes to teaching (Emerling, 2010). Furthermore, not much has been explored on the "multidirectional influences" between teachers' participation in professional development to improvement in teachers' classroom practice (Kazemi & Hubbard, 2008, p. 428). They describe the situation as two teachers going to similar professional development, but one might benefit more from it than the other. Understanding these influences would provide vital information on the conditions that support and promote such learning communities within a learning organisation. Not only that, it would also lead to a better understanding of the relationship between the complex situational contexts in which teachers work in to the learning taking placing within professional development programmes and its impact on practice.

A teacher inquiry community was formed at a private higher educational institution in Malaysia to improve the instructional practice of its language teachers. A study was conducted on the community to understand the impact of teachers' participation in a teacher inquiry community on their practice and the various contextual elements that influence what they transferred to practice.

This study was framed by the following research questions:

- 1. How did participation within the teacher inquiry community impact teachers' instructional practice?
- 2. What were the contextual factors that influence transfer to practice?

The Teacher Inquiry Community Project

Learning within a teacher inquiry community has several distinctive features:

- Learning takes place within a systematic cycle (Levine, 2010).
- Learning is inquisitive and exploratory in nature (Cochran-Smith and Lytle, 2001)
- Learning is tool-dependent (Emerling, 2010)
- Learning encourages reflection on instructional practice
- Focus is on deprivatizing (Cochran-Smith and Lytle, 2001) and problematizing practice (Ball and Cohen, 1999)

To make learning within the teacher inquiry community systematic, a protocol was designed based on the proposed inquiry cycle by Bay Area School Reform Collaborative (BASRC) (as cited in McLaughlin & Zarrow, 2001) and the consultancy protocol produced by National School Reform Faculty (NSRF). Teachers in the teacher inquiry community would take part in the following activities. See Figure 1 below.

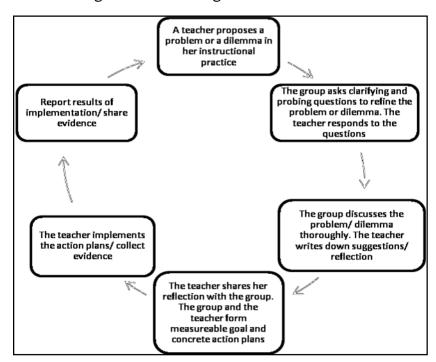


Figure 1: The cycle of inquiry in the teacher inquiry community

Each session would start with a teacher sharing a problem or a dilemma in her teaching (Problematizing practice). To make her problem transparent to the community, she could

share an evidence of practice, for example, students' written work, her reflective notes, and assignment prompts (Tool-dependent). Other members would ask her probing questions to refine the problem shared. Next, the community would discuss the problem without the participation of the teacher with the dilemma. She would be asked to take notes of any important points raised or suggestions to 'solve' it. While listening to the discussion, , the teacher was required to reflect on and make connections to her practice (Reflecting on practice). Next, the teacher shared her reflection. In the following step, the community would discuss measurable goals and concrete action to be implemented in the teacher's classroom. She would then implement her action plans and collect data or evidence (Tooldependent) to share with the group. The teacher would be required to keep the evidence of her implementation as it would be analyzed by the community in the next meeting. In the following meeting, she would report the result of her implementation and share any evidence of practice that was the outcome of the implementation. This would restart the cycle of discussion as it would be another platform of inquiry to further resolve the problem or to analyze the problem more thoroughly. The cycle would only be completed if the teacher felt that she had understood or 'resolved' the problem or dilemma that she faced in her instructional practice.

For the first cycle, eight language teachers from various university language programmes volunteered to join the community. The number of participants however fluctuated to ten in the second cycle and nine in the third cycle due to personal circumstances. All teachers who were members of the teacher inquiry community were females, teaching English language, literature or communication courses to students of various levels (Pre-University (Enrichment, Intensive English and Foundation), Diploma, and Degree). The level of expertise of the participants varied from novice to experts and teaching experience varied from 2 to 31 years. Five of the participants did not have a teaching degree but held qualifications in various areas like Computer Science, English Language Studies, Mass Communication, English and History, and Performing Arts. In the past, most participants had taken part in various university professional programmes, in the form of workshops, trainings and peer observation exercise but none had took part in a community-based professional development. Despite this, the group appeared to be interested and motivated to form the community to improve their instructional practice.

Data Collection and Analysis

The study employed four different methods to gather data and they were a) participant observation, b) qualitative questionnaires c) in-depth and focused interview and, d) audiovisual materials. Data for the study was collected through participant observation of inquiry community meeting sessions; content analysis of audio-taped sessions of meetings of the inquiry community; in-depth and focused interviews of members of the inquiry community

pre and post cycle; and qualitative questionnaires which recorded individual teacher's learning accounts during each teacher inquiry community meeting.

In this study, to make sense of the data collected, a qualitative (directed) content analysis was employed on the data retrieved from all sources. Data analysis was ongoing which means that it was done before, during and after the project. Participants were interviewed prior to the project to understand their teaching background, their beliefs about teaching and learning and any professional development effort that they had participated in in the past. They were required to fill up a qualitative questionnaire after participating in a session and interviewed after completing a cycle.

In the earlier stage of data analysis, contact summary sheets were prepared to give focus or to summarize questions about a particular contact (Miles and Huberman, 1994) in which, researchers' reflection was also included. Contact summary sheets were produced for every observation of the teacher inquiry community meeting, the qualitative questionnaires gathered after each meeting, and the evidence of practice (tools) that surfaced during each meeting. This process was guided by the research questions. In the next stage data was abstracted from three data sources, observation, the transcribed interactions and the qualitative questionnaires. Abstracting data involved the process of creating "codes, categories and themes at varying level" (Graneheim & Lundman, 2004, p. 106). The meaning units were identified in the written data and these meaning units were then condensed, coded and categorized. To guide this process, an initially generated a list of categories from the literature was referred to (Zhang and Wildemuth, 2009) and new categories were also identified. After this stage, themes were created to link the underlying meaning in categories together (Graneheim & Lundman, 2003). It was very easy to get lost and confused in the whole process and to reduce the probability thus another language teacher from a different institution assessed the coding. The next level of data analysis was data display. Data that were retrieved from different sources were displayed in the form of a table and this helped to link the codes, categories and themes to the research questions. By displaying the data in the form of a table, it was easier to identify patterns and correspondences between categories.

According to Merriam (2009), during the more intensive phase of data analysis for a case study, all the information about the case that are derived from multiple data sources should be brought together in order to convey an understanding of the case. To accomplish this, a case report was produced where the findings of the analyses of data and researcher's reflections were merged. In the case report, conclusions and verifications were drawn from the analyses of the different data retrieved from the case and also the reflective remarks that were recorded in the contact summary sheets. This process was repeated for each teacher inquiry community meeting. Triangulation of data was done within the processing of data retrieved from each teacher inquiry meeting. To strengthen the validity of the findings, findings between the meetings were also compared.

Once a cycle was completed or after ten teacher inquiry community meetings, the participants were then interviewed. The data retrieved from each interview would then go through the process of abstraction where meaning units would be coded, categories would be produced and placed under themes. These findings were then triangulated with the findings retrieved from the analyses of data retrieved from the teacher inquiry community meetings.

Research findings

This section focuses on answering the research questions listed above pertaining to the impact of participation to individual teachers' instructional practice and the elements that influence transfer of knowledge to practice. Generally, each teacher's learning context was different from one another thus each had her own path of learning within the community. Due to their contextual differences, teachers benefitted differently from their participation within the community. To understand how participation within the teacher inquiry community benefitted teachers and impacted practice, and the contextual elements that influence transfer to practice, analyses were carried out on the transcribed interactions of the teacher inquiry community meetings and this was supported and triangulated by various other data sources, namely observations, the qualitative questionnaires and the in-depth interviews.

Impact of Participation on Practice

Shared knowledge of practice supported by inquiry and reflection helped teachers gained a better understanding of the instructional dilemma; increased their awareness and understanding of certain aspects of teaching and learning; gained a better understanding of self as a teacher and the roles they played within the classroom and for some changed the ways they taught a certain language components, skills or the way they dealt with problematic students.

In some cases, new knowledge gained through the sharing within the community resulted in teachers trying new approaches or strategies in their teaching of a specific language component or skill. The application of a new strategy, in some ways, changed the teachers' practice as they broke away from their old teaching habits and applied new strategies to improve their teaching of a specific language component or skill. Changes to practice often involved the transfer of concrete skills to teaching, for example, ways to instill critical thinking, ways to teach writing or spelling, and ways to deal with problematic students. One specific example was when teachers attempted to utilize a strategy they coined as 'copywriting' in their classrooms. 'Copywriting' was a process introduced by one of the community members as a strategy to help Joyce in improving her students' spelling and sentence construction. During 'copywriting', students were required to copy short passages verbatim. The activity was used in another IEP teacher's class and it showed remarkable improvement in her students' writing, particularly in their spelling and use of punctuations. Even though the activity was introduced to lower-proficiency students, other teachers within the community reported introducing the strategy within their intermediate classes

when they were teaching essay and business writing. Susan, for example, after listening to the sharing on 'copywriting' and how it helped improved another teacher's students' spelling, punctuation and writing applied the strategy to her classroom applied copywriting into her own classrooms: "Yes I have tried few things but I have not documented them you know things like aa.. I mentioned the other day about aa... what do call it... copy writing ya I have tried copy writing" (Susan, Interview, C 2).

Through repeated successful attempts, some teachers formed new teaching habits. Sandra, for example, continuously implemented and improvised the inquiry-based technique that she used in her classroom. Through her reporting, it was evident that there was a significant change to the way she instilled critical thinking and the role that she played within her literature classroom. Consistent applications of a new teaching strategy that worked, coupled with a deep reflection on her past teaching strategies and her role as a teacher helped Sandra changed her practice. In the past she recalled holding on to "a big autocratic kind of teacher like I will tell you what to do and you will do it this way you know" (Interview, C 1). After several implementations and rounds of discussions on her dilemma and the inquiry-based technique that she applied within her classroom, she reported:

When I shared my experience of asking the students to do the presentation you know I think you will remember that initially I was the one who came up with the questions, the guiding questions and so much so I think it's kind of help me you know to make the students more involve in their learning and then to give them some form of autonomy...

(Sandra, Interview, C 1)

During the second cycle, when she reported an improvised version of the inquiry-based technique employed within her literature classrooms, they were profound changes to the role that she played within her classroom and the amount of autonomy that she gave her students.

Gaining a new perspective or understanding on the process of teaching and learning might not result in any changes to practice. However, continuous exposure to the same issue or dilemma could result in continuous reflection which might result in changes to practice. After her disclosure of and the discussion on her problematic student, H, Meera realized that there were conditions like Asperger's and Autism that could hinder students' learning without the teacher or the students realizing it. In the past, she often thought that "every time when a student is not performing or not following orders, the first thing came to mind is stupidity or laziness." (QQ, Week 7, C 1) However, from the discussion on her dilemma, she realized that "there are more possibilities than just that" (ibid.). She echoed similar learning point when interviewed at the end of the cycle: that she should not "jump to conclusion" and "maybe give them the benefit of the doubt" (Meera, Interview, C 1) and "look at all the possibilities and never assumed that ... they are lazy or they are stupid" because "... there are always other possibilities" (ibid.).

In the following cycle, Meera took part in several discussions on Joyce's dilemma. Her participation in the discussions and listening to Joyce's interviews with her students which revealed their problematic past learning experience, Meera reported that she had become more empathetic towards her students:

There was a session where Jayne interviewed some of her Middle Eastern students, haah.. that were.. that really make me more.. feel more empathic towards students so you just don't assume that oh.. ok they can't do even a simple thing you know after listening to them it's not actually something that is easy, something that they have to learn... We've taken things for granted here because we have been exposed ever since we were little but over there apparently they have to learn everything when they are... in their teens probably something new to them so ya...

(Meera, Interview, C 2)

Because of her constant exposure to the issue and her continuous reflection on it, Meera reported a change in her behaviour when addressing problematic students in her classroom. In the past, she reported that it was often "an automatic no… no MC (Medical Certificate) you can't do it" (ibid.). However, after participating in several discussions on problematic students, when she faced a similar problem she reported that she made attempts to understand her student's predicament for not being able to present her speech on time:

"There was one student who had difficulty in doing her presentation so before automatically saying no to her you know so I did ask her ok what's the problem, why you didn't come on that day or this... this...this ok you were not... sick so were you late, why were you not in class that day so ask all those questions hoping that you know..."

(ibid.).

Contextual Factors that Impact transfer of learning to practice

Generally, the protocol utilized promoted transfer of knowledge gained to practice. It encouraged teachers to carry out the suggested strategies onto their practice and reported the outcome to the community. Not only had that, sharing within the community also encouraged others who were taking part to experiment on practice. Despite this, the impact of participation on practice differed from one teacher to another due to individual teacher's contextual differences. Internal (for example: personality, teachers' beliefs, confidence level, acceptance of responsibility, level of involvement and reflection) and external factors (for example: teaching context- feasibility, relevance, practicality and organizational context-time and work related constraints) impacted what teachers transferred to practice resulting in different effects on teaching.

Teaching context

Most teachers stated feasibility, practicality and relevance as the main reasons why they transfer or did not transfer what they had learnt or gained from the sessions to their practice. This notion was clearly described by Meera when selecting strategies that she would employ within her classroom to resolve her dilemma:

"Normally when we discuss on how to solve certain problems I would choose the one (suggestions) that I think would be most suitable for that particular problem and whether that can be applied to that particular group for that particular class for that particular student. You could have like 3 or 4 really good suggestions but not all 4 suggestions you can apply to your problem..."

(Interview, C 1)

Teachers would apply knowledge or skills that they considered relevant to their students and feasible to their programme. Teachers who taught English to Degree students, in other words, might not consider strategies that were reported for the teaching of lowerproficiency students as relevant to their context. Thus, even though they might consider a certain sharing as new knowledge, it might not be transferred to practice as they felt that it was irrelevant to their teaching. One specific example was when Joyce introduced a turtle puppet she called 'Tonto' to teach English to lower-proficiency students. Joyce shared and demonstrated how she used 'Tonto' to teach the English preposition, to attract the students' attention to learn and to encourage the participation of shy students in her language activities. Even though 'Tonto' was described as "interesting" by many participants, it did not lead to learning, which was most probably due to differences in teaching needs. Joyce used 'Tonto' to teach English to students of o to 1 level whereby others within the community were teaching students who were more proficient in the English Language. Even though many described 'Tonto' as "interesting" and the introduction of the use of soft toy/ puppet in the classroom could be new knowledge to some, it was not transferred to practice because it was irrelevant to others as they were teaching students of higher proficiency. As stated by Meera:

... as much as I admire 'Tonto', I don't think I can use 'Tonto' in my class because my students somehow, some Diploma students especially School of Business students, they might find that as childish and you know their attitude is slightly different. So some of it I can't do it because of you can't...

(Interview, C 3)

There were also instances when teachers found certain knowledge useful but did not apply it to their teaching context because when it was shared, it was not relevant to their teaching context then. Teachers reported putting such knowledge into storage and would apply it to their practice in the future.

Individual context

Teachers' opinion on what was relevant, feasible or practical was found to be closely linked to teachers' beliefs about teaching and learning. Generally, if teachers did not believe that the knowledge shared was suitable, practical or relevant to their practice and contradicted with their beliefs about teaching and learning, they would not transfer it to their practice. Leslie, for example disagreed with another community member whom suggested sending a problematic student to the counsellor to solve the dilemma. Leslie stated that: "Number one whether it is feasible to be carried out in class, that's one, and of course like if let's say a teacher suggests that she will send the student for counseling I think that... that's... I would really think twice first" (Interview, C 2). Another specific example that illustrates how teachers' beliefs would prevent transfer of knowledge to practice would be the sharing by Mimi:

Copy-writing yes.. I have understood the principle behind it but I don't know if I will use it because copying to me is... that's my belief.. that's my belief because I have seen my nieces in Chinese school... copying... copying... copying... non-stop and I find it quite worthless for me. They will copy paragraphs of Bahasa Malaysia 'karangan' from the text book on to paper. Why?

(Interview, C 3)

Even though there were numerous reporting within the community that proved the usefulness of the 'copywriting' activity, Mimi did not consider it as something that she will use within her classroom as she believed the activity is worthless and unsuitable for university students: "I consider it as rote learning and is suitable for primary school children" (QQ, Week 4, C 3). Such beliefs prevented any form of transfer of the activity to her classroom even when there were positive reporting about it.

Teachers' belief on the best approach in teaching could also prevent knowledge learnt from the sharing within the community to be transferred to their practice. Susan, for example reported that "my old beliefs of teacher... teacher centred learning... I still have a bit of that... unless I teach and stand there and teach... teach... " (Interview, C 3). As Susan did not have an extensive training to be a teacher, she relied on an old belief that she had about teaching. Even though she reported that there had been small changes to her teaching where she tried to be more student-centred within her classroom ("So I did try for essay writing, group work and getting them to come up with their own idea" (ibid.), her participation within the community did not change much of her practice.

At times, having a better understanding of one's dilemma did not necessarily result in change to practice because of the strong belief that one held. Nancy, whom after a discussion on her dilemma realized that the materials that she used within her classroom could be too difficult for her students, resulting in them having difficulty in writing. Despite this, she did not make any changes to the choice of her material because of her strong belief on the standard that she needed to maintain within her programme:

I can't yes that's right because standard there to be maintained, I cannot lower the requirement of the course because you know it's not going to help the students (ya) they have to be able to handle university assignments (so) so essays and reports minimum is 1,500 words then that is in the first year, they have to be able to reach up to 2,000 3,000 words of essay and they have to be able to organize them and then you know write out the points coherently so you know from say they are now at IELTS level 2, 3 alright... for them to be able to reach that level within a matter of 170 hours.. ya it is a huge challenge but that standard cannot be lowered for their own good even in the name of business you can't...

(Interview, C 2)

Making changes to one's practice was difficult and 'scary' for some. Even when they found certain strategies useful and practical, due to low level of confidence, they did not make any significant changes to their practice. Susan, for example, believed that the copywriting activity would benefit her students tremendously. She, however, reported not being able to "really try anything in a bigger scale" (Interview, C 3) and attributed this to her low level of confidence:

Ya... this is my only disappointment. My disappointment is a fact that I am not able to really try out anything in a bigger scale. Maybe I can, maybe I am not confident enough, probably I can, I should be able to but hopefully I can. I keep telling myself I must do something you know, I mean just take copy-writing for example, maybe I can... if I can just do it with a few more students, see the impact over the ten weeks... it will help.

(ibid, C 3)

Susan, also acknowledged that she was "so worried that ok I must cover all these and the constraints are there" (ibid). Meera, related similar feelings when it came to making changes to her practice. She reported that she "was still a bit scared... about changing" (Interview, C 2). To Meera, changing requires time as she needed to first understand what was shared and then tune it to her students (ibid.). Low confidence made these teachers become low risk-takers and this could result in their participation within the teacher inquiry community having minimal impact on their practice.

Sandra whom showed changes to her practice, on the other hand, displayed a high level of confidence when taking risks within her classrooms. She was the first to disclose her instructional dilemma and she constantly disclosed her practice for others to examine and shared the outcome of the strategies she implemented. Even when her dilemma was 'solved', Sandra continued to devise an extended activity using inquiry-based strategy to improve her students' ability to respond critically to literary questions and continuously gave detailed deliberations on the outcome of the newly devised activity. Not only that, Sandra also attempted 'copywriting' activity within her Business English class even though it was utilized by IEP teachers who were teaching lower-proficiency students. Sandra consistently wanted to improve her practice through experimentations within her classroom: "I think I

have always been open, I personally I am that kind of person... the kind of person who wants to improve... I would try new things..." (Interview, C 2).

Casey whom reported changes to practice also displayed similar characteristics. Casey was opened about sharing her problems to other community members and within three cycles, she shared three different instructional dilemmas for others to examine. Casey was also opened to suggestions and often attempted the strategies shared by others within her classroom. She adopted the suggestions given by the community members to solve the problems she faced with a disruptive student, P and she tried and adapted the inquiry-based teaching technique used by Sandra to her own classroom. Like Sandra, Casey also wanted to consistently improve her practice: "when it comes to teaching and learning, it's a lifelong ... you know practice and I mean improvement that you have to think about, it cannot be stagnant" (Interview, C 3). She also displayed similar characteristics to Sandra when it came to experimenting on practice: "... when you learn something new and then you want to experiment it in your class and aa.. I mean it doesn't work in every class but if it works, you are very happy, like what happened in my psychology class...inquiry base, ya... this paraphrasing and copy-writing, things like that, I have to try ya" (ibid.).

Organizational Context

Some teachers reported that they were not able to transfer what they had learnt within the community to practice due to work-related constraints. Many teachers reported that time was the biggest constraint for them. Leslie for example noted the following: "The course runs for 10 weeks only so for us to actually conduct the strategies and then find out whether it works or not... it's already end of the term" (Interview, C 1). Even when teachers found a certain strategy useful and relevant to them, they might not be able to apply or experiment with the strategy due to lack of time. Furthermore, some of the strategies needed time to be implemented before one could see results. As teachers had other teaching responsibilities, a good piece of knowledge learnt could be placed in storage until the next available opportunity to apply it to practice.

Another constraint within one's organization that could hinder transfer of knowledge learnt to practice was related to the way a programme was organized. Some of the courses that were taught by the participants within the community were also taught by others. Teachers at times were tied to a specific course structure. This disabled them from experimenting on their practice:

"And sometimes when you are teaching a certain subject, you are not the only one teaching that subject (so you are tied) ya.. so you can't do something totally different from the others. You can't just simply add what you like and all that without you know discussing with others and then sometimes the others might not like it. So there's always... those kind of things there's always a problem"

Furthermore, what could have hindered Susan from making significant changes to her practice, other than the belief she had about teaching and her low confidence in experimenting within her classroom was due to the way her programme was structured. Usually, Susan was overwhelmed with the fixed scheme of work (SOW) and on top of that she had to "clear like they have a text book and I have to finish that text book nine chapters within the ten weeks. Then I have worksheets that... which are fixed for each class like if I am in Level 3, we have four Level 3s and all the four classes have to finish all of that papers and handsout within that week..." (Interview, C 3). Because of the rigidity of her programme, she often found that she had "no time to try on these things with them because there's only ten weeks" (ibid.). Even though, Susan found activities like 'copywriting' and 'paraphrasing' relevant and useful to her students, because of these constraints she was not able to experiment with them within her classrooms.

Conclusion

This study found that teacher collaborative inquiry has numerous benefits and can result in changes to practice. For most teachers, participations resulted in an increase in knowledge of practice, a better understanding of their teaching role and the process of teaching and learning, and the strengthening of past beliefs. Some teachers made significant changes to the way they taught certain skills and language items, whereas some changed their perception on their students which resulted in improved empathy and communication with them. A lasting change to practice, however, could only occur if teachers were continuously exposed and reflecting on to the same issue or dilemma. Not only that, changes to practice could also be an outcome of participation if knowledge learnt was regularly applied to practice through multiple classroom experimentation. Furthermore, teachers need to also have a certain level of confidence to make changes to their teaching by implementing strategies or techniques that they consider useful and relevant to their practice. They need to accept responsibilities and be open enough to others' opinions and suggestions.

As an implication, to improve instructional practice, teachers should take part in such collaborative initiative. To ensure that teachers learn and would transfer what they have learnt to practice, staff developers should encourage experimentations and provide teachers with reflective tools to help them make connections to their own teaching and question their set assumptions and beliefs. Learning organizations, on the other hand, should allocate ample time and space for teachers to take part in such professional development to reflect, experiment and share with others within the community.

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