

## Examination of Co-construction of Knowledge in Videotaped Simulated Instruction

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### ABSTRACT

The aim of this study was to examine the impact of a videotaped simulated instructional model on prospective language teachers' co-construction of knowledge with the help of their peers and their supervisor in microteaching sessions. Within the framework of action research, a three-phase collaborative coaching model (TCCM) was developed to encourage trainees' reflection and instructional awareness regarding teaching and learning processes in videotaped simulated instruction. The implementation of the strategies of qualitative data and method triangulation and collaborative data analysis procedures helped the cross-examination and verification of the data which increased the credibility and objectivity of the research. The analysis of multiple data indicated that the three-phase videotaped simulated instruction is a viable model for trainees' professional growth. Being involved in video-mediated collaborative teaching and dialogue provided trainees with invaluable opportunities for an in-depth analysis of instructional processes, which raised not only their reflective skills but also professional awareness and development.

### Keywords

Microteaching, Videotaped instructional design, Action research, Collaboration, Construction of Knowledge

### Introduction

Man is always man-in-the-world and his action cannot be studied adequately if it is separated from his life situation ... we must approach and investigate man as integrated being ... as a unique person who is embedded in culture, language, society, history and physical world (Lehtovaara, 2001:163).

The realization of professional development using a collective interactive process can be examined within the realm of a constructivist paradigm, which considers learning in the light of situationality. The process of learning 'how to learn' and 'change' is largely influenced and shaped by the interplay between an individual and contextual variables since it is a shared socially-constructed meaning making process. For the experience to be transformational, one needs to be actively involved in the knowledge creation process (Kohonen, 2001), which requires the incorporation of social negotiation and mediation from multiple perspectives and through dialogue (Santrock, 2001) and learning tools (Borko et al., 2008). Cultural historical activity theory (CHAT) provides a contextual perspective for the significance of collective practical-critical activity because it helps one develop understandings of real world situations, draw meanings from that understanding, and create learning from those meanings (Fox, 2001). The individual could no longer be understood without his or her cultural means; and the society could no longer be understood without the agency of individuals who use and produce artifacts (Engeström, 2001:134). In educational settings, dialogue and activity also play a critical role in promoting learning abilities and facilitating instructional growth through co-construction of knowledge (Postholm, 2008).

In initial teacher education, the means facilitating the development of prospective teachers' instructional knowledge are considered critical from various dimensions. A review of the literature reveals various studies that emphasize the significance of the incorporation of technology in teacher education with respect to its merits and pitfalls (Goktas et al., 2009; Hixon and So, 2009) and trainees' creation of knowledge (DiPietro, 2004). It is imperative to integrate current technology in instructional processes (Gulbahar, 2008) because it helps trainees evaluate their gained experiences and learning (Jensen et al., 1994; Kpanja, 2001; Wang and Hartley, 2003) and provides an experience-based and effective learning context (Gomleksiz, 2004). Further, teacher education programs need reform by enhancing the attractiveness of the teaching profession through incorporating a global dimension into teaching practice (Jusuf, 2005). Such integration provides rich situated learning experiences by involving students in social, interactive and active learning processes where they gain skills, strategies and subject-matter knowledge (Ajayi, 2009). In the perspectives offered by CHAT, technology provides active engagement in the learning process, critical

thinking, and communication for the construction of knowledge (Ng'ambi and Johnston, 2006). Video - as a tool for fostering productive discussions and negotiation among trainees within microteaching - provides a supportive, critical, and evaluative environment in enhancing professional development (Glazer et al., 2005; Borko et al., 2008).

Microteaching, as a simulated training technique, has been used for various stages of trainees' growth. Wallace (1991) considers microteaching as a deep-rooted and highly valuable teacher education technique; however, he also states that '...nothing works so well as using real learners. Only then is the true nature of the teaching and learning process revealed at the appropriate level' (p.101). In this respect, the extent of the effectiveness of microteaching sessions on trainees' growth in internship can be debatable because simulated classroom discourse may not mirror the actual teaching and learning context; yet, such environments – when supported with technology in a collaborative and reflective learning context – can help construct knowledge.

Another dimension of growth is through reflective dialogue, which is regarded as an inseparable part of a meaning making process. A reflective process, theoretically, may lead to professional growth through a developmental process involving a critical assessment of the existing culture of practice, which is referred to as internalization (Edwards, 2007). It can be conceptualized that self-reflection arises 'through internalizing the perspective that the other has upon self, followed by self taking the perspective of other upon self' (Gillespie, 2007:682). Facilitating reflection, interaction and collaboration is critical since multiple perspectives nurture and shape knowledge production by linking the intra-psychological dynamics of reflection to the inter-psychological - social psychological - dynamics of collaboration (Cornish et al., 2007) and professional development (Gazi A., 2009; Jonassen, 1991). According to Wang and Hartley (2003), video technology is effective in assisting trainees' to develop professional knowledge and dispositions. However, 'the influence of different ways in which video technology is used on what pre-service teachers learned and how they learned' has not received considerable attention (p. 130).

Lack of actual teaching experiences has always inhibited trainees from gaining optimum benefit in their professional development during their practicum experiences. Therefore, a three-phase collaborative coaching model (TCCM) was conceptualized. The model incorporates collaborative and reflective dialogues among trainees and their supervisor to encourage trainees' reflection and instructional awareness as regards their instructional processes based on video-integrated microteaching sessions. The primary aim of this conceptualization, and the research reported here, was to examine the impact of the videotaped simulated instructional model on prospective language teachers in co-constructing knowledge in microteaching sessions. Considering the significance of socially-constructed knowledge for development, as stated in CHAT, this study is significant because, using an action research model, it attempted to critically scrutinize how this holistic model can be applied to teacher education. This was accomplished by depicting, in a broad spectrum of qualitative evidence, how videotaped stimulated instruction in microteaching in English language teacher education was organized and implemented. In this regard, it may provide invaluable insights concerning the effectiveness of the model in preparing trainees for real school experiences.

## **Methodology**

The overall framework of the research design for the study was based upon theoretical and methodological premises that support a conception of learning as a socially constructed interpretation of reality (Denzin and Lincoln, 2003). The exploration of the interactions among individuals (Creswell, 2003) helps capture the complexities of the phenomenon through the participants' perceptions and experiences.

### **The Three-phase Collaborative Coaching Model**

The TCCM was designed around three developmental sessions (during seven weeks) to gradually prepare and equip trainees with the thinking skills and professional dispositions, deemed necessary, to be effective beginning teachers when they start their actual teaching experiences. Within the conceptual framework of constructivist teaching and learning processes, and with the support of technology, the practicum was designed on the premises that learning is an interactive, dialectical, collaborative, negotiative and reflective process. Within this framework, trainees were expected to collaborate and negotiate with peers to create pedagogical knowledge for their future professional learning and growth. All microteaching classes used a repeated cyclical framework (see Figure 1) in three phases, starting from pre-sessions and continuing during the while- and post-working sessions. These three phases provided

not only the means for trainees' reflective analysis of the microteaching sessions but also the grounds for collecting data during the second step of the action research cycle (Figure 2). The phases of the TCCM (pre-working session, while-working session, and post-working session), that mirror the second step of the learning cycle in Figure 2, are described more fully below.

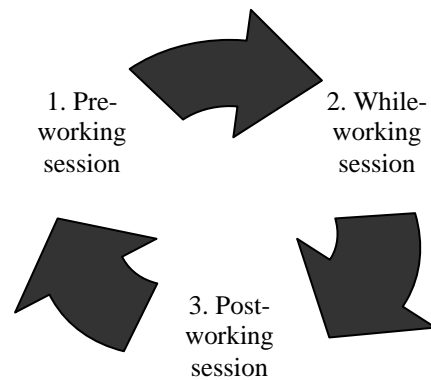


Figure 1. The model of collaborative videotaped simulated microteaching

*Pre-working Session:* Though not a part of the trainees' video-taped instructional presentation, this session aimed to equip the trainees with some pertinent foundational theoretical knowledge related to instructional issues and to prepare each group of trainees for microteaching presentations that would be videotaped. To achieve this, each group was initially asked to prepare a lesson plan and instructional materials for a teaching point, either a language skill or content area, which had been identified at the beginning of the program by each group (seven in total). The groups were composed of one, two or three peers. Before their presentation, trainees were assigned to read materials related to language skills or content areas. Also, they were expected to revise and improve the quality of their lesson plans and materials by liaising with the instructor prior to their presentation. This pre-conferencing session aimed to raise trainees' awareness of their lesson plans.

*While-working Session (50 minutes):* This session aimed to involve each group of trainees in peer-teaching presentation which was videotaped to be viewed and discussed in post-working session. Each presentation was timed for thirty minutes and followed by presenters' self-evaluation for twenty minutes in class. At the beginning of the session, all presenters and peers were given an appraisal form including the aspects of lesson planning skills, teacher personality and talk, warm-up, presentation, planning, feedback, and classroom management. The presenters also distributed the lesson plan to their peers to facilitate their peers' observation and evaluation of the presentation. They also informed their peers about the level of students that they were expected to address during the presentation. Peer-presentation was conducted and simultaneously videotaped. Meanwhile, the presenters were appraised by their peers in the class. Each peer wrote comments indicating the strong and weak aspects of the presentation using an appraisal form. This session ended with the presenters' oral self-evaluation.

*Post-working Session (100 minutes):* The ultimate aim of this session was to raise trainees' awareness of instructional processes by involving them in collaborative discussions after each presentation while viewing the videotape. By stopping the videotape at certain intervals, all trainees discussed and reflected on the presenters' teaching performance and instructional stages by considering the aspects in the appraisal form. Meanwhile, the teacher, by linking the practical processes to theoretical basis, guided and facilitated co-evaluation process. The session ended by focusing on the aspects that needed further development and the reasons why. After the lesson, all trainees, including presenters, were required to write a reflective journal by focusing on the strengths and weaknesses of the lesson and suggesting ways for improvement and further development. They were also expected to write what they learned from the microteaching and collaborative evaluation. Besides, the presenters were required to evaluate their own performance as regards its strengths, weaknesses and make suggestions for the improvement of weak areas by writing a self-reflective report. Both reports were to be submitted to the instructor before the following microteaching session.

## Research Design and Approach

In educational professional practice, understanding how to effectively interpret people's intentions, capacities and responses during learning, which provides insights about what they are experiencing, is crucial to successful teaching. Therefore, a qualitative research design, which employs a wide range of interconnected interpretive practices, was chosen as an appropriate research design in this research study (Denzin and Lincoln, 2003).

Qualitative research includes naturalistic, inner perspective, emic, and soft data, and encompasses the key concepts of meaning, common-sense understanding, definition of situation, social construction within an inductive process (Bogdan and Biklen, 1998). It is a reflective process, whereby researchers try to understand how meaning and experiences are constructed (Creswell, 2003). Thus, a qualitative research design was deemed most appropriate for the exploration of prospective language teachers' co-construction of knowledge with their peers and supervisor in microteaching sessions.

Action research was employed to systematically examine a problem within a specific context and seek appropriate solutions based on induced change of professional practices and a learning cycle rationale. Action research, as an evaluative tool, provides an environment that improves rationality and justification of professional practices within a self-reflective context, mediated through collaborative activities, group support and assessments. So, the steps of the action research cycle (Figure 2) were adopted and implemented to examine the impact of collaborative coaching in videotaped, simulated instruction on trainees' development with respect to a constructivist learning and teaching process (Johnson, 2002; Mills, 2003). In the second step of the cycle, the implementation of the three phases of the TCCM (Figure 1) generated multiple qualitative data which reflected trainees' views on their professional growth. This repeated cyclical framework supported the trainees' presentations in microteaching sessions, their collaboration, reflection and evaluation of the instructional and learning processes incorporated in the model. In the following steps of the cycle, the analysis and evaluation of multiple data drawn from the TCCM provided new understandings as to the areas the trainees displayed professional development. The final two steps of the cycle led to further suggestions as regards the model.

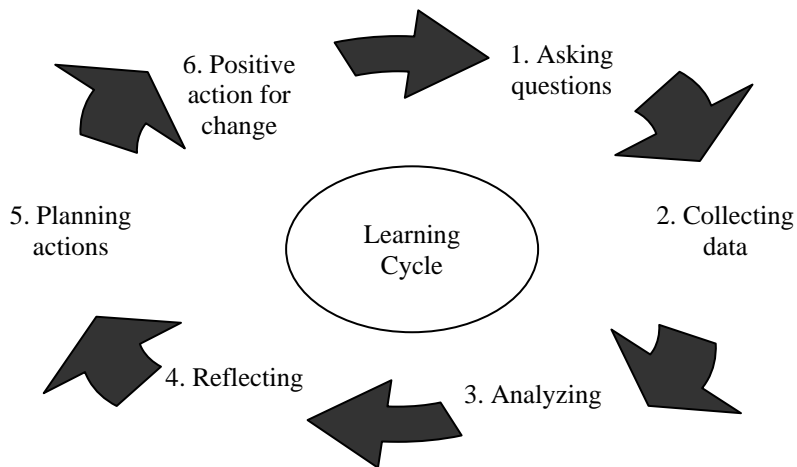


Figure 2. Action research cycle (Mills, 2003)

## Context and Participants

The participants of the study included all sixteen interns enrolled in the practicum, a fourth-year second semester course, which aimed at improving trainees' teaching performance and developing an awareness of how students learn by involving the interns in reflective teaching practice. Seven microteaching lessons - one per week - were conducted throughout seven weeks. The trainees voluntarily participated in the study and the data were collected through purposive sampling in order for an in-depth examination of the learning processes as they unfolded.

## **Data Collection Techniques and Analysis**

Multiple qualitative data collection instruments - interviews, self-reflection reports for micro-teaching sessions, and reflective journals - were used for the in-depth examination of the issue under investigation (Denzin and Lincoln, 2003). Ensuring rigor is critical during data collection and analysis processes of the research because, without it, the research will lose its trustworthiness and utility (Morse et al., 2002). Content - thematic - analysis was employed to interpret all qualitative data by considering the key themes in relation to the research focus and questions (Altinay and Paraskevas, 2008). The implementation of the strategies of qualitative data collection, method triangulation and collaborative data analysis procedures helped the cross-examination and verification of the data from all sources. This increased the credibility and objectivity of the research. The following series of data analysis phases were employed in the study: Organizing raw data for transcriptions, transcribing data around pre-determined and emerging themes and codes, member checking, creating matrices for each theme, coding the data on matrices, inquiry audit confirmation of the data by the participant researchers, and verifying data through data triangulation (Kuter and Koç, 2009). For ethical considerations, confidentiality of the data and anonymity of the participants were ensured during data analysis processes by using coded numbers for all participants. The subjects were not compelled to participate in the study, but were invited to be a part of the study. Before videotaping trainees' presentations, their consent was obtained. They voluntarily agreed to be videotaped and requested that they receive a copy of the tape to keep as reminiscence.

## **Findings and Discussion**

The in-depth examination of the triangulated data yielded invaluable findings regarding the impact of the collaborative simulated instruction on the trainees' professional growth in the practicum. Based on this evidence, the three-phase collaborative microteaching was deemed as a viable model having a notable influence on the trainees' construction of professional knowledge as far as the following facets are considered.

### **Video as a Means for Professional Development**

The data collected from reflective journals and interviews exhibited a promising parity concerning the importance and necessity of the incorporation of video technology during while- and post-working sessions. Almost all trainees considered video as an indispensable part of simulated discourse in facilitating the transformation of their conceptions of teaching and learning from the following aspects.

First, video-taping sessions heightened trainees' self-awareness of the professional attributes they were expected to develop. Almost half of the trainees indicated increased awareness about certain teaching points which they did not perceive during presentations. ST2 stated, "When I couldn't concentrate on my peers' presentations, I found the opportunity to give more consideration for those points during video watching. I became aware of such points that I couldn't notice during my peer's presentation." Further, ST5 and ST13 reported their heightened awareness of the teaching aspects they needed to develop as a result of 'focused attention'. That watching video broadened trainees' consciousness towards their posture, use of language and voice, and pronunciation mistakes in English was underlined by some trainees. One of the trainees reported that, when watching her video, she noticed her excitement. Stressing the significance of video watching, ST8 remarked, "On the spot evaluation is difficult. Both watching and evaluation facilitated in-depth evaluation of our faults."

Second, the data demonstrated that nearly half of the trainees considered video as an invaluable tool facilitating trainees' reflection on practice. These trainees also noted that the evaluation of presentations via videotaping facilitated their involvement and development of critical reflection. ST15 underlined, "I had the chance to watch with a critical eye. During the presentation I do not have so much time to think about the lesson." According to these trainees, the trainees' observing their peers using an appraisal form and a lesson plan during while-working session facilitated their evaluation during video watching in the post-working session since they developed awareness towards the points to be evaluated. ST5 reported, "Both the appraisal form and the lesson plan helped me to be involved in deep reflection. Watching and reflection should go hand in hand after presentation and be followed by writing our reflective journals. All these complement one another." ST6 also supported this by saying "evaluating peers' presentations via video helped me to critically evaluate peers from a wider perspective." Next, almost all

trainees reported that video-taping provided the grounds for the exploration of teachers' personal and professional traits from multiple angles. More than half of the trainees stressed that, by watching their peers, they actually made inferences about the things that were not related to teaching skills and processes. Watching and re-watching was deemed useful since, rather than relying on one idea, it helped trainees to put themselves in other's shoes and empathize with them (ST12). As to ST6, watching video, minute by minute, widened trainees' awareness and perspectives and contributed to their growth.

Considering the difficulty of being involved in instantaneous self-evaluation in practice, video can be considered as a real third eye which can provide the proof of trainees' actual teaching performance in their presence and give them a chance to be involved in self- and peer-evaluation and see their strengths and weaknesses more openly. In this regard, audio-visual technology can play a significant role in providing trainees with more chances to see and notice instructional behaviour.

Thus, reflection at technical, contextual and dialectical levels (Taggart and Wilson, 2005) is an inseparable part for instructional development. When video technology is integrated in this technical process as a means for reflection, each session might gain meaningfulness in terms of the inferences drawn. ST6 emphasized, "I learned that whatever the reason is I should focus on my posture because when I see myself on the camera I see a very passive, weak person with low esteem, so students can use this." Effective technology integration requires teachers to obtain learning experiences with the context of their teaching so they can practice, reflect and modify their practices (Glazer et al., 2005:57). It also provides trainees with rich and diverse instructional experiences to observe and reflect for the intention of acquisition and development of pedagogical content knowledge (Wang and Hartley, 2003).

Borko and his friends (2008) support the integration of video as a professional development tool when participants are involved in reflective and creative conversations within a group. Watching and reflecting on the same video in collaborative communities helps trainees develop a collective expertise from multiple angles (Taggart and Wilson, 2005). To this end, video technology is an effective observational tool, which can foster trainees' accurate self-evaluation (Anderson and Speck, 1998), reflection within the context of teaching (Jensen et al., 1994), and trainees' pedagogical knowledge (Kpanja, 2001).

### **Collaboration as a Process for the Construction of Knowledge**

The in-depth examination of multiple data exhibited that the phases of TCCM provided invaluable grounds for trainees' development relative to several dimensions.

Before discussing trainees' growth, it is crucial to underline their weaknesses in instructional processes. In self-reflective reports, almost all trainees were found to have problems with teacher talk and lesson planning. The trainees' problems with their use of voice, language, and adjusting their pace of speech were highlighted by eight, five and four trainees, respectively. Regarding planning, while six trainees reported their weaknesses in preparing accurate materials for the implementation of tasks and proper visuals to sustain attention, two trainees underlined their incapability in planning learner-centred tasks. Concerning teacher personality, the problems highlighted were lack of confidence (5 trainees) and enthusiasm (3 trainees), nervousness, excitement (2 trainees), and lack of creativity (1 trainee). Besides, a few trainees experienced difficulty in motivating students in warm-up sessions, and giving clear and purposeful instructions and specific feedback. Finally, posture and time management problems were reported by two trainees, respectively.

The data displayed that videotaped presentations and collaborative discussions promoted trainees' awareness and growth in various areas of teaching. Regarding teacher talk, almost all trainees highlighted their improvement in using their voice. While six trainees reported their awareness of inaccurate use of English language, four trainees reported improvement in raising and making their voice audible to class. Only one trainee underlined his awareness of pronunciation problems in English. Concerning planning of the lesson, more than half of the trainees stressed their growth in planning various materials for the lesson. The trainees' progress in planning learner-centred tasks and using the board in a more organized way was mentioned by four and eight trainees, respectively. While nearly half of the trainees emphasized their growth in preparing accurate hand-made materials, some trainees reported their consciousness of integrating visual materials for sustaining attention. The importance of a contingency plan, integrating various technologies and teaching techniques, listening tasks and music, and various sitting arrangement

organizations was highlighted by one trainee. Regarding warm-up, more than half of the trainees stated that they got the importance of motivating students in warm-up. As to feedback, almost all trainees reported the areas they developed themselves in giving feedback. Almost half of the trainees stressed their growth in giving immediate feedback and simpler and clearer instructions, respectively. While six trainees developed awareness of checking students' comprehension, three trainees developed better skills in using praise and self- and peer-correction. Considering teacher personality, the following attributes of a friendlier attitude, confidence, and enthusiasm was reported by nine, five and four trainees, respectively. Few trainees reported that they became more well-organized and creative as a result of microteaching processes. Regarding classroom management, nearly half of the trainees developed awareness about the importance of classroom and time management, respectively. Four trainees also reported their progress in controlling disruptive behaviour. Although trainees reported no weaknesses concerning their lesson planning skills before the video-taping experiences, they stressed their progress in writing a lesson plan. Almost all trainees focused upon the importance of a well-organized and well-thought-out lesson plan. Nearly half of the trainees became aware of how critical it is to consider the preparation of a plan for using the board during planning. Nearly half of the trainees stressed their progress in writing performance objectives and integrating various activities and visuals in a lesson plan, respectively. Finally, more than half of the trainees stressed their development in contextualizing teaching points after the warm-up. As to ST11, "I didn't go to school as an empty tin. In microteachings, I reached certain awareness about how to use board and developed myself in contextualization of my presentation." Five trainees also reported how critical the theoretical aspects they studied before are. ST1 noted, "We studied theory, yet without its application everything is in the air. Viewing with examples imprinted everything on our mind." Considering the overall effectiveness of microteachings, ST7 said, "Observing and discussing the lesson with different nearly twenty eyes, writing reflective reports all contributed to my professional growth and my teachings ... These sessions laid strong foundation on our professional growth and teaching experiences." ST4 remarked, "My cooperating teacher at school couldn't find any weakness in my teaching. She only said 'your language' because we went there having been already equipped with necessary teaching skills."

The data drawn from self-reflective reports and interviews showed that trainees found the processes during while-and post-working sessions significant from several aspects. Firstly, observing peers with an appraisal form and lesson plan helped five trainees to be reflective and three trainees to be objective during observation. The form was deemed to broaden trainees' awareness towards the areas they need to focus by eight trainees. Having been given both the appraisal form and lesson plan was considered effective by five trainees, because having both helped them to go into instructional details, observe peers from wider angles, and follow the presentation in the light of objectives. ST13 reported, "I learned how to write a lesson plan by observing through my peer's lesson plans. This contributed me a lot, decreased my excitement and increased my confidence." Observing peers with an appraisal form and lesson plan helped ST6 and ST12 to put themselves in the shoes of both a teacher and student and gain more awareness about instructional processes.

Second, involvement in collaborative discussions helped some trainees to gain awareness regarding their instructional processes. ST13 underlined, "Without collaboration, one cannot develop. I got aware of how to deal with my bad aspects. I liked 'learning by doing' and learned that students learn when they are active and the teacher talks less." Besides, the contribution of collaborative dialogues on trainees' development was reported by some trainees. As to ST5, "Our friends were giving the instructions after they delivered the material. This should have been done before in order to draw students' attention to help them to be aware of what to do. This also happened to me." She also added that when a lesson was supported by visuals and creative activities then it became efficient and enjoyable for everyone and she learned the use of good illustrations in order to contextualize the teaching point. Next, being engaged in reflective dialogues from multiple angles - self- and peer-evaluation, and teacher evaluation - was deemed as one of the most significant phases of videotaped simulated instruction since it helped all trainees to gain a deeper understanding of their development. All trainees considered those dialogues, under the guidance of the critical peer-mediated feedback, through TCCM to be highly beneficial. While four trainees reported that they gained by evaluating peers and looking into matters from multiple perspectives, two trainees found this phase vital since they mixed both theory and practice and reflected on instruction. Both ST9 and ST11 reported that, though microteaching is a fake environment, they learned reflecting on their peers. ST7 stated, "A house without a foundation is impossible. The stronger the foundation is, the stronger the house is. The feedback given was the cement and strengthened our house." This showed that the feedback given from multiple perspectives raised trainees' awareness regarding the aspects that one could not notice when involved in instructional processes. The facilitative role of the teacher in providing guidance and supervision was also reported as a key element of this process.

Finally, writing reflective journals in post-working session was reported to help trainees' growth. Almost all trainees reported that writing reflections helped them to learn how to evaluate peers, which helped them to evaluate themselves as well. ST5 reported that she delivered more effective teaching by noticing her mistakes in reflective writing. As to ST3, "I developed by evaluating myself. I always thought about my peers and my own weaknesses. I tried to find ways out and employ those ways in my actual teachings." Within collaborative evaluation, particularly teacher feedback was underlined as one of the most critical variables necessary for the realization of collaborative dialogues in post-working sessions by all trainees. Ten trainees considered teacher feedback critical for the collaborative evaluation process. Three trainees reported that they wouldn't gain from the discussions without teacher feedback. ST8 noted, "Like we underline sentences, important sections, in a book, the teacher highlighted the parts we need to be careful." The effectiveness and significance of immediate feedback was highlighted by ST7. She said, "You didn't give us ready-made thought but provided us with the foundations of how to think. Think about a piece of dough. You can shape it when it is warm, but when it gets cold, you cannot work on it."

The triangulated data demonstrated that being involved in collaborative dialogue during TCCM on one hand helped trainees improve their weaknesses in planning a lesson with respect to materials preparation, teacher's feedback, use of voice, warm-up, and teacher personality, on the other hand assisted trainees to gain awareness and develop themselves concerning instructional aspects that they were not aware of at the beginning of microteachings. Increased awareness helped all participants to be involved in collaborative, reflective, and critical dialogues which increased the value of those sessions in terms of their professional development (Chalies et al., 2008). Collegiality in the form of collaborative reflective dialogues in microteaching helped trainees interrogate their personal theories and constructs and the taken-for-granted (Francis, 1997) and gain awareness and progress due to the incorporation of self- and peer-evaluation and teacher evaluation. In this regard, involvement of a master teacher in this process was considered critical (Roth et al., 1999). Further, video was considered a significant and complementary element facilitating collaborative reflective dialogue and trainees' instructional awareness and growth. Video-tape supported microteaching was reported to provide concrete actual experiences 'to bridge the gap between the abstract and real' (Brent et al., 1996). Within this framework, negotiation of feedback under the guidance of the instructor and the theories the trainees studied before assisted the collaborative reflective process and helped alleviation of trainees' growth. Thus, conceptualizing TCCM on the basis of a three-phase video-integrated collaborative reflective process heightened trainees' awareness and self- reflection which facilitated their growth as regards the multifaceted reality of teaching processes. This supports the idea that learning to teach is a complex phenomenon which is built upon experiences gained in social contexts (Freeman and Johnson, 1998) and helps each prospective teacher's perceptions and beliefs to develop in complex interaction with contextual experiences (Aksal A., 2009).

## **Conclusion and Recommendations**

This study reported and discussed the findings of a three-phase collaborative video-integrated simulated instruction model, which yielded positive results on raising trainees' awareness, reflection and growth in pedagogical processes. The findings exhibited that all phases of TCCM provided the instructional means for the trainees to bridge theory and practice within a collaborative, negotiative (Kaasila and Lauriala, 2010), and reflective learning environment, all of which facilitated their professional awareness and development. Engaging students in a constructivist-based learning environment encourages their reflection, communication and collaboration skills, thus facilitating their development (Neo and Neo, 2009). This study showed that examination of personal theories in collaboration with a supervisor and the integration of critical friendship are the aspects that need to be considered in microteaching as well as integrating video technology (Francis, 1997). Although microteaching in teacher education has been considered as an artificial (Bell, 2007) and simplified instructional setting (Fernandez, 2010), these sessions, when supported with technology, provided the means for promoting professional knowledge (Borko et al., 2008; Neo and Neo, 2009), consciousness of new possibilities for professional growth (Zellermayer and Ronn, 1999), critical thinking and reflection (Neo and Neo, 2009), and collaborative learning (Borko et al., 2008). Francis (1997) also supports that microteaching helps to develop critical exploration of technical and theoretical aspects. Moreover, it enhances trainees' self-evaluative awareness and competence building. Video, as a cognitive tool, is considered critical for microteaching and professional development (Borko et al., 2008; Osam and Balbay, 2004). Besides the aforementioned cognitive processes, the findings exhibited that alteration of trainees' competencies takes place through modelling (Francis, 1997), involving trainees in social processes of professional development. Trainees might imitate and reproduce the behaviour they liked by attending to someone else's performance (Cruikshank et al., 1995). Such social learning may foster personal and professional development. Further, collaborative discourse



provides the means for professional development through scaffolding and negotiation of feedback. Rather than an individual initiative, a collaborative undertaking - a partnership - was constructed (Kuter and Koç, 2009). Therefore, supporting development through socially constructed knowledge is another dimension crucial for growth. Without being actively involved in various social contexts and processes, one cannot encounter situations and cases from which certain meaning can be generated. Thus, the social dimension of human being gains meaningfulness when actively being involved in social processes, which are not only limited to interactions but the continuing and multifaceted interplay between social processes and mind for the (re)construction of knowledge through internalization (John-Steiner and Mahn, 1996). At this stage, technology plays a critical role since its integration provides cooperative and collaborative (Hwang et al., 2008) and self-directed learning environments (Kayler and Weller, 2007) which enables learners to be at the centre of instruction, construct knowledge through multiple perspective and active learning strategies (Karagiorgi and Symeou, 2005). As Dipietro (2004) highlights,

engaging pre-service teachers in the constructive processes of analyzing, adapting, testing, negotiating, retrying, and reflecting allows them to examine teaching and learning and to determine for themselves how to teach, how students learn, and how technology can support learning. (p. 73)

Kpanja (2001) also stresses that videotaped instruction helps prospective teachers display more significant progress in the mastery of teaching skills when compared with the ones not involved in videotape-supported microteaching. Although microteaching cannot be replaced with other kinds of instructional experiences (Wallace, 1991), this study exemplifies how a model of videotaped simulated instruction, as a whole, can equip trainees with the necessary personal and instructional skills before being involved in actual teaching experiences at schools. In this respect, the findings of this study may help program designers in initial teacher education to construct video-supported collaborative microteaching learning environments to enhance reflection and professional growth. Collaborative professional approaches in technology supported environment can assist to overcome certain hands-on barriers like 'lack of on-site support and lack of authentic learning experience' and, therefore, enhance development (Glazer et al., 2005:65). Although the study yielded highly positive results as regards the TCCM, longitudinal and qualitative studies (Wang and Hartley, 2003) need to be conducted to determine its effectiveness on trainees' growth over a longer period of time. If rigorously conducted, the research agenda outlined also might provide more insights into the value of the model and its limitations.

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