Educational Sciences: Theory & Practice • 14(5) • 1823-1833

www.edam.com.tr/estp
DOI: 10.12738/estp.2014.5.2085

The Implementation and Evaluation of a Clinical Supervision Model in Teacher Education in Turkey: Is It an Effective Method?*

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Abstract

Implementation of the standards established by the Higher Education Council (HEC) has shown great variation between universities, between departments and even between supervisors. A TUBITAK (111K162)-EVRENA project designed to develop a "teaching practice program" using a Clinical Supervision Model (CSM) was conducted. The present study examines the effectiveness of CSM implementation on teacher trainee performance. An experimental model was utilized to compare the teaching performance of teacher trainees in a group that used the CSM (experimental group) and a group that used the traditional method (control group). Independent raters scored videotaped teaching performances. These scores were compared using t-tests and analysis of variance. The results indicated a significantly higher score on both the first and second videotaped teaching for the CSM group compared to that for the control group. Both groups increased their scores between the first and second video; however, a mixed model, repeated measures analysis of variance (ANOVA) showed no significant difference in the increase in scores for each group. The experimental group had consistently higher teaching scores, and the lack of a significant difference in the increase was most likely the result of the limited time spent using the CSM.

Keywords

Clinical Supervision Model, Teaching Practice Program, Teaching Practice Course, Reflective Teaching Practice.

* The present study reports on one of the research questions of the pilot study of a larger TÜBİTAK EVRENA Project 111K162 titled "Best Practices for Classroom Teacher Training Programs: Clinical Supervision Model" and an earlier version of the paper has been presented at the ULEAD 2013 Annual Congress, Multi-paradigmatic Transformative Research in Education: Challenges and Opportunities in May 31, 2013-June 2, 2013 in Nevşehir, Turkey.

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Although the Clinical Supervision Model (CSM) has been applied in the United States since the 1960s (Pajak, 2002), it is a rather new concept in Turkey. The origin of the CSM dates back to the 1960s. Many have called for more clinical experience in teacher education (Krajewski & Anderson, 1980). Concomitant with this call for more clinical teacher preparation is the need for effective clinical supervision of teacher trainees (National Council for the Accreditation of Teacher Education, 2010). Despite its widespread global use in education, there is a dearth of research that examines the effectiveness of clinical experience in teacher education.

From its inception to its current use, the CSM has been elaborated and enriched from different perspectives. Pajak (2002) classified the development of CSM into four categories: (*i*) *Original Models,* which focus on the collegial relationships between supervisors and teacher trainees, (*ii*) *Humanistic/Artistic Models,* which emphasize idiosyncratic teaching experiences, (*iii*) *Technical/Didactic Models,* which underline observation techniques and feedback, and (*iv*) *Developmental/Reflective Models,* which focus on context-specific practices and reflective feedback among supervisors, teacher trainers (TT) and cooperating teachers (CT).

Other Supervision Models Implemented in Teacher Education

Based on an extensive literature review, Gebhard (1984, pp. 502-509) listed five models of supervision for pre-service and in-service teacher education programs, which allow teacher educators a variety of options. The five models are: (*i*) Directive, where the teacher or the trainee is directed and briefed, the desired instructional behaviors are modelled, and the teacher's skills are evaluated based on the pre-defined and enacted behavior by the supervisor; (*ii*) Alternative, where the supervisor offers a number of alternative suggestions to the trainee for the actions to be taken without any subjective prescriptions. This way, the trainee still has the authority to make decisions; (*iii*) Collaborative, where the supervisor works with the supervisee, but does not direct him, by a sharing and effective communication. First, an issue is posed in the teaching context, and the parties work together on the definition, examination and the implementation stages; (*iv*) Nondirective, where the supervisors' role is to offer a listening ear to the trainees and recapitulate their statements to foster more individualistic choices by the trainees; and (*v*) Creative, where an eclectic approach to supervision is exercised by combining supervisory behaviors and responsibilities from previous models and insights from other disciplines.

Placed in the collaborative supervision model of Gebhard (1984), the clinical supervision model developed by Goldhammer (1969) and Cogan (1973) has been an influential model of supervision. Goldhammer (1969) and Cogan (1973) postulated that the behavior of teachers could be improved; their reflectivity in and out of classroom could be increased if they had equal status with the supervisors. It was also claimed that once an enhanced interaction and democratic atmosphere could be created, the teachers' performance and, later, the students' learning performance would be improved. Although the original model was proposed for in-service teachers and school administrators, it has been used with pre-service teachers, as well (Clifford, Macy, Albi, Bricker, & Rahn, 2005). It can be argued that the original model has provided a perspective for reshaping the understanding of the individuality and the role of supervisors and supervisees, which previous models neglected. According to Symth (1991), clinical supervision is valuable because it has the potential to bring about changes in the social interactions between stakeholders in schools. The mutual collaboration and partnership between stakeholders in schools is a prerequisite to serve trainees with high-quality clinical opportunities supported by effective supervision (Krajewski & Anderson, 1980; Darling-Hammond, 1990; NCATE, 2010; NCTQ, 2011).

Rodgers and Keil (2007) introduced a renovated model for pre-service teacher supervision. Their restructured supervision model was primarily composed of a paired dyad model, which emphasized the experience of CTs. The supervision system is mainly focused on the CT who undertakes a joint role of both the CT and the university supervisor (US) and visits his colleagues' class to observe the TT. It was argued that through their heightened awareness during the process, both the CTs and TTs would better understand supervision based on their own conceptions. Supervision would become a means for future professional development for both the trainee and CT. Although these studies demonstrate the effectiveness of supervision in enhancing teaching practice, they are generally dyadic in nature (USs and TTs). To achieve maximum effectiveness, triadic supervision

(US, TT and CT) is a must. In addition, the merits of clinical supervision have been studied from different perspectives. Susi (1992) praises the advantages of the clinical supervision model and lists the benefits of the model, i.e., (*a*) it provides typical instructional settings, (*b*) it provides hands-on experience for the candidates, (*c*) it enables systematic data collection from the class for TTs' and CT's reflection.

Clifford et al. (2005) described the use of a CSM at a U.S. institution in an early childhood special education department. Their model claimed to have integrated components from the four categories described by Pajak (2002). In Clifford's model, the TTs were defined as apprentices to experience the clinical incidents that were mentioned above. Furthermore, the USs are allowed to have more flexibility in using the supervision styles in the four categories. The evaluation results of this model indicated a high rate of student and faculty satisfaction. However, Clifford suggested that an over-reliance on self-reports and a lack of systematic data collection were shortcomings of the evaluation.

It should be reiterated that there is an absence of research that experimentally tests the clinical supervision model. However, a study by Reavis (1977) compared the verbal exchanges during supervision sessions between supervisors and teachers. Although not experimental in design, this study is an attempt to compare the components of the clinical supervision model. The study was conducted almost three decades ago and aimed to compare the type of feedback given to the teachers by nine supervisors. Each of the nine supervisors was trained to provide feedback to two teachers, one in a clinical and the other in a traditional supervision model. The recorded verbal exchanges in the post conferences and the teachers' perception of the supervisors' language were analyzed. The results indicated that the feedback from the clinical supervision, which was deemed more democratic and supportive, was significantly more positive than the feedback from the traditional supervision.

One significant study by Miller (1994) investigated the implementation of the CSM at a U.S. institution that trains classroom teachers. Thirty-two students were enrolled in a program that followed the five phases of the CSM defined above. Although the study was not designed to be comparative in nature, there were more systematic evaluations of the program than were found in previous studies. TTs' performance was measured using rubrics that ascribed certain pre-defined behaviors expected from effective teachers. The results of the study indicated that the CSM was successful in increasing the number of expected effective behaviors and in decreasing the number of ineffective teacher behaviors in TTs. Many years have passed since the early efforts to improve supervision. However, Rodgers and Keil (2007) indicate that although a large body of research has been devoted to the innovations in teacher supervision, the traditional model structure of US, CT and the TT has persisted.

The Modified Clinical Supervision Model

The clinical supervision model adapted from the Department of Early Childhood Education at Georgia State University (ECEGSU) consists of five cyclical stages. These stages are: pre-conference, observation and data collection, data analysis, post-conference and reflection. These stages are explained in Gordon and Maxey (2000) as follows: In the pre-observation conference, the supervisor and the TT sit together to decide on the objectives, activities and ways to assess students; then, they decide the points on which the trainee wishes to focus during the lesson. These points of focus become the basis for the supervisor's observation. Later, in the observation phase, the supervisor observes the lesson based on the formerly decided points and criteria generated during the pre-observation conference. Because the clinical supervision system depends on mutual trust, the supervisor only gathers information on the previously acknowledged points and does focus on other areas during the observation.

During the third stage, the supervisor initiates a data analysis using data collected during the observation. The supervisor analyzes these data and devises the appropriate feedback to inform the trainee about the observation. The collected data are shared in the post-conference stage. In the fourth phase, the dyad reviews the data together and discuss areas of strength and weaknesses. The supervisor and the trainee choose areas for improvement and devise a plan for improvement. This plan becomes the foundation upon which the trainee works to improve his/her practice. This stage is cyclical in nature because the improvement plan becomes the template for the next observation, when the supervisor will assess progress made. The final stage is the reflection stage. Here, the supervisor reflects upon his/her own performance in observing the trainee and generates a plan for improvement.

Clifford, Macy, Albi, Bricker and Rahn (2005, p. 168) state that "The supervisory observations and post-conferences are important ways for both TTs and supervisors to reflect and refine teaching practices." These five stages pave the way to a strong collaboration and careful exchanges of ideas between the supervisor and the trainee because they both receive constructive feedback from different perspectives. The focus of teacher training has moved from a focus on university supervisors to the teacher trainees (Aseltine et al., 2006; Waite, 1995). This shift has drastically altered the behaviors of university supervisors. Thus, it is no longer acceptable to instruct trainees by "telling people what to do, watching them do it, and making corrections as needed," as Sergiovanni (2002, p. 106) states.

Research on the Teaching Practice Course in Turkey

In Turkish teaching practice courses, all university professors are considered to be potential supervisors for TTs regardless of their willingness or the quality of supervision they can provide. Collaboration and supervision between USs, CTs and TTs are the most important aspects of the professional development of TTs during the teaching practice process (Azar, 2003; Bates, Ramirez, & Drits, 2009; Clifford, Macy, Albi, Bricker, & Rahn, 2005; Ekiz, 2006; Kiraz, 2003; Spellman & Jacko, 1988). Teaching practice in Turkey encourages triadic collaboration between USs, TTs and CTs; however, in a real classroom environment, this model does not work properly because of the lack of supervision and feedback from the stakeholders. Specifically, they have little knowledge about supervisory techniques. Kiraz (2003) investigated the views of 690 TTs from various majors in Turkey about the effectiveness of their CTs' supervisory skills via questionnaires and interviews. A vast majority of the TTs defined their CTs as weak or insufficient with regards to their supervisory skills, especially in instructional methods.

Ekiz (2006) explored the practice of supervision through a survey of 55 primary education TTs. The results displayed a failure of CTs' major role in observing TTs and providing constructive feedback: The TTs confessed that they were basically left alone in the classrooms without any assistance. The study further noted a lack of a strong communication between the CTs and the TTs. In addition, USs were not effective in establishing stronger ties between stakeholders.

Azar (2003) also studied the views of TTs, CTs, and the USs about the current traditional teaching practice model. The participants restated some of the previously mentioned problems; i.e., trainees reported that they were not observed or given feedback on a regular basis and that their communication with their supervisor was haphazard. The CTs complained that the pay they received for having a TT in their classroom was insufficient for the duties they were expected to perform. In addition, they claimed there was no fair criteria in their selection and that there was favoritism shown by the principal during the selection process. In addition, both USs and CTs admitted that there was no effective cooperation between the practicum schools and the universities, which led to problems in coordination between these institutions (Ekiz, 2006; Kiraz, 2003). Further studies in Turkey noted that the roles, duties and responsibilities of the stakeholders of teaching practice courses were not extensively known. Ünver's (2003) study had similar findings: He found USs, CTs and TTs had limited information about their roles and were not aware that they were supposed to give feedback to each other.

In response to the call for more training of clinical educators, and dissatisfied with the traditional "top-down" supervisory models where the supervisor is the sole authority figure, the faculty in ECE developed a version of the CSM that addressed the shortcomings of earlier models. The tripartite clinical supervision model, developed over many years of practice, is based on the foundation of a three-way partnership between university supervisors, cooperating teachers and teacher trainees. This unprecedented process, where professionals from different perspectives of the educational process come together to focus on the professional development of the teacher trainees, is the unique quality of the CSM developed by ECEGSU. What makes this process truly unique is the inclusion of the teacher trainees as equal partners in the process. Rather than be directed in their development of the necessary skills and dispositions for an effective educator, the teacher trainees have a voice in the process. This process is designed to prepare the teacher trainees to be facilitators of student learning rather than authoritarian figures in the classroom. Direct experience with this model by the faculty in the School of Education at Uludag University led to a collaborative TUBITAK (111K162; EVRENA) project between them and the College of Education at Georgia State University in the USA. The overall

goal of this project was to modify, implement and then evaluate the CSM to be used in teaching practices in Turkey. The purpose of this paper is to describe the implementation and evaluation of the CSM with teacher trainees in their final teaching practice. The objective was to compare the effectiveness of the TTs' teaching performance between the experimental (CSM) and control group. Because no studies have used an experimental design to compare the CSM with other traditional models, the contribution of the current study can be considered unique in nature.

Method

The CSM is a program where the teacher trainee (TT), cooperating teacher (CT) and university supervisor (US) work in collaboration to improve the teaching performance of the TT. Each is an essential member of the triad in which the CT and US provide systematic feedback and opportunities for TT self-reflection in an effort to improve TTs' performance in the teaching practice classroom.

Overview of Research Design

The research design of this study is experimental in nature. The use of CSM was the treatment, and the use of the current practices in the faculty of education at a large state university in Turkey was the control. The data presented in the current study were gathered during the pilot phase of the research project. The purpose of this study was to compare the teaching performances of a group of TTs that used the CSM and a control group that used the traditional model.

Specifically, the following research questions were examined: (*i*) Are there any significant within-group differences in the teaching performances of TTs who use CSM and TTs who use the traditional supervision model, as shown in video 1 and video 3? (*ii*) Are there any significant between-group differences in the teaching performance of the TTs who use the CSM and TTs who use the traditional supervision model, as shown in video 1 and video 3? And (*iii*) Are there any significant between-group differences in the amount of change in teaching performance scores of TTs who use the CSM and TTs who use the traditional supervision model, as shown in video 1 and video 3?

Participants

The participants consisted of a total of 96 TTs (48 in the experimental group and 48 control). The experimental group members were predominantly female, were between the ages of 21-24 and were all in the fourth year of their teacher education program. The control group was also comprised of mostly female TTs between the ages of 21 and 24 and in their fourth year of teacher training. Participants were randomly placed in either the experimental or control group at the beginning of the semester in the fall of 2012. Participants were placed in a primary school classroom for their final teaching practice. Each was in the classroom one day per week.

Nine schools were selected from three different regions of the city of Bursa. These urban schools were selected due to their willingness to participate in the project. One of the nine schools was four years old; the rest of the schools were established at least 10 years prior. The school principals were contacted and asked to select CTs to host students for the fall of 2012. The schools in the experimental group and the control group were similar in terms of the number of teachers and students. The majority of teachers in both groups had a bachelor's degree, and only six (2%) had a graduate degree.

Procedure

USs and CTs who worked with TTs in the experimental group received intensive training in the theory and use of the CSM over a three-day period at the beginning of the fall semester of 2012. This training consisted of the background and history of the project, an introduction to the CSM and a beginning of in-depth discussions of the components of the model (day 1). During the second day of training, USs and CTs continued in-depth learning about the CSM along with discussions about the data collection that would occur in the project. USs and CTs were made familiar with the rubric that would be used for observation feedback. They were also given information about observation techniques and practice with sample teaching videos. Training on day three focused exclusively on the post-observation, three-way conference. The importance, the conference, and the techniques for facilitating an open exchange of information among the participants were discussed. USs and CTs watched video samples of three-way conferences. In addition, the participants were introduced and trained in the use of the online communication

system (UludagKDM) to be used during the project. This system provided a framework for the USs, CTs and TTs to communicate with one another, share ideas, etc.

The USs and CTs who worked with TTs in the control group received no special training and engaged in the highly idiosyncratic methods of orientation that are currently practiced in the school of education at this university. Some of the supervisors made contact with or met with the CTs who would host their students, and some did not. The traditional practice of some of the USs is to observe the TTs at least twice throughout the semester.

Experimental Group

The process of the experimental group revolved around the development of a three-way partnership involving the TTs, USs and CTs. This group process involved a highly organized structure that involved regularly scheduled observations (three observations during the semester) by the US and weekly feedback by the CT. Each scheduled observation by the US involved (*1*) a pre-observation conference, where the US and CT discussed and gave feedback on the teaching plan that the student would implement during the observed lesson, (*2*) observation by the US and CT and (*3*) a post-observation conference in which all three partners discussed and gave feedback on the lesson taught by the TT. Every week, the USs would meet with the TTs for two hours to discuss their lesson plans or their experiences at the cooperating school. At the end of the semester, all TTs would turn in their portfolios, which would include their lesson plans, observation reports, and peer and self-evaluations that they prepared during the semester. The USs would read and evaluate these portfolios. A special handbook was created and utilized for the experimental group. It was adapted from the teaching practice manuals in use at Georgia State University and focused on special techniques designed to enhance teaching and make it more effective.

Control Group

The traditional model included a visit by the TTs and the US to the cooperating school at the beginning of the semester to meet the school principal and the CTs. At this meeting, the US would share the program expectations with the principal, the CTs and the TT. In every school, a vice principal was in charge of making a schedule for the TTs in terms of which grade levels they would be placed in throughout the semester. Based on this schedule, each TT would visit different classrooms from first through fourth grade and would change their placements every 2-3 weeks. The TTs would teach different courses at different grade levels during the semester. The USs would visit the TT and observe his/her lesson twice during the semester. Every week, the US would meet with the TTs for two hours to discuss their lesson plans or their experiences at the cooperating school. At the end of the semester, all TTs would turn in their portfolios, which would include their lesson plans, observation reports, and peer and self-evaluations that they prepared during the semester. The USs would read and evaluate these portfolios.

Data Collection

All 96 TTs videotaped three forty-minute lessons during the fall semester of 2012. The project researchers selected a random sample of 60 video tapes (15+15 experimental and 15+15 control) from the first and the third recordings for analysis. Researchers scored the video tapes from both the experimental and the control groups according to a rubric adapted from the Faculty-School Cooperation Booklet (1998). The Faculty-School Cooperation Booklet was prepared by the Higher Education Council (HEC) in Turkey as an effort to standardize teaching practice in teacher education institutions. The HEC and World Bank carried out a project called "Developing National Education" from 1994-1998 to improve the quality of teacher education. One of the outcomes of the project was the aforementioned booklet, which contained information about the process and the teacher competencies and their evaluation. The roles and responsibilities of the stakeholders (supervisors, cooperating teachers, teacher trainees) and the institutions (cooperating school, faculty, and directorate of national education) were also discussed. The booklet serves as a guide for all parties when carrying out the "School Experience" and "Teaching Practice" courses offered at education schools.

The video recordings were rated by three teams with two researchers in each. Raters were blind to the group status of the TTs. Each videotape was scored by two independent raters, and the average score of the two was utilized in all statistical analyses. To assess the reliability of the raters, an intra-class correlation coefficient (ICC) was computed. The ICC was .77, which demonstrated a good reliability between raters.

Instruments

The evaluation rubric used in scoring the TTs' videos was adapted from a rubric in the Faculty-School Cooperation Booklet (1998). The original evaluation rubric had 46 items in total. Because this study utilized an analysis of videotaped teaching performances, items that focused on information not available to the rater were deleted. These items included those that focused on the clarity and effectiveness of written lesson plans, how well the TT interacted with other teachers, how well the TT graded projects, the TT's knowledge of school rules, e.g., "The TT is able to write the lesson plan in a clear, comprehensible and neat way;" "The TT grades students' products in a short time and reports to corresponding stakeholders;" "The TT has an awareness of the laws and regulations related to the profession;" "The TT is open to professional suggestions and criticism;" "The TT attends school activities;" and, "The TT is a good model for society in their personal and professional behavior." The new rubric included some items from the Faculty-School Cooperation Booklet but was supplemented with new items adapted from the manuals from Georgia State University. This new rubric was comprised of 35 items scored from one to three. A score of one indicated "needs improvement," two, "acceptable," and three, "proficient." An online version of the rubric was created for data collection. Examples of new items in the rubric are: "The TT appears professional in appearance and classroom language;" "The TT displays professional behavior in and out of class;" "The TT demonstrates knowledge of the learning process;" "The TT demonstrates flexibility by being able to evaluate the effectiveness of decisions and actions taken and making changes based on feedback;" and, "The TT is a positive role model for the students."

Data Analysis

Three sets of statistical analyses were conducted to assess both within-group and between-group differences in videotaped teaching scores. The within-group score changes between video 1 and video 3 for the experimental and control group were analyzed via an independent-samples *t*-test. To assess the differences between the two groups' scores in video 1 and video 3, two paired-samples *t*-tests were conducted.

Finally, a mixed model, repeated measures ANOVA was computed to compare whether there was a significant difference between the groups in relation to the amount of change between video 1 and video 3 for each group. A descriptive analysis indicated that these data were normally distributed and the assumption of homogeneity of variance for the independent samples t-tests was met (Field, 2009).

Findings

Research Question 1

To assess whether there was a significant change in teaching performance between the first and third videotape in the experimental and control groups, two paired-samples *t*-tests were conducted. In the first *t*-test, the results indicated that the average score on the third videotape for the group that used the CSM was significantly higher than the group's average score on the first videotaped teaching performance (t (14) -4.08, $p < .019$; see Table 1). Similarly, the results of the second t-test indicated that the average score on the third videotape for the control group was significantly higher than the control group's average score on the first videotaped teaching performance (t (14) -2.64, $p < .05$; see Table 2).

Table 1
First and Third Video Scores Analysis for the Experimental Group

	First Videos	Third Videos	*t*	*df*
Teacher Trainees	69.59	79.37	-4.08*	14
	(15.28)	(12.46)		

Note. * = $p < .05$, *** = $p < .001$. Standard Deviations appear in parentheses below means.

Table 2
First and Third Video Scores Analysis for the Control Group

	First Videos	Third Videos	*t*	*df*
Teacher Trainees	57.31	65.87	-2.64*	14
	(12.60)	(14.75)		

Note. * = $p < .05$, *** = $p < .001$. Standard Deviations appear in parentheses below means.

Research Question 2

An independent-samples t-test was conducted to compare the first teaching performance scores (via videotape scoring) of students who were working under USs who were using the CSM (experimental) and students who were working under USs who were not using the CSM (control). The results indicated a significant difference in the teaching performance scores of CSM group and the scores of students in the control group (t (28) 2.40, $p < .05$; see Table 3).

Another independent-samples *t*-test was conducted to compare the third teaching performance scores (via videotape scoring) of students who were working under supervisors using the CSM (experimental) and those students who were working under supervisors who were not using the CSM (control). The results indicated a significant difference in the teaching performance scores of the CSM group and the scores of the students in the control group (*t* (28) 2.70, $p < .05$; see Table 4)

Table 3
First Video Scores Analysis

Teacher Trainees

	Experimental	Control	*t*	*df*
Video 1	69.59	57.31	2.40*	28
	(15.28)	(12.60)		

Note. * = $p < .05$, *** = $p < .001$. Standard Deviations appear in parentheses below means.

Table 4
Third Video Scores Analysis

Teacher Trainees

	Experimental	Control	*t*	*df*
Video 3	79.37	65.87	2.70*	28
	(12.46)	(14.75)		

Note. * = $p < .05$, *** = $p < .001$. Standard Deviations appear in parentheses below means.

Research Question 3

To answer the third research question, a mixed model, repeated measures ANOVA was conducted to compare the amount of change in the scores on the two teaching videotapes between the experimental group and the control group. The results indicated a non-significant interaction between the repeated measures factor (time) and the change in scores from time one to time two (F (1, 28) = .102 $p = .752$.)

Discussion

The current study investigated whether the use of the CSM in teaching practices has an effect on the teaching performance of TTs. Data analyses revealed that scores from the group that used the CSM were consistently higher than scores from the control group. The *t*-test results indicated that these scores were significantly higher than the control group in video 1 and video 3. In addition, scores from both groups increased significantly from video 1 to video 3; however, there was no significant difference between the control group and the experimental group in the size of the increase.

Thus, there is limited support for the idea that use of the CSM improved the teaching performance of TTs. It appears that use of the CSM had a positive effect on the effectiveness of TTs' teaching, as evidenced by their consistently higher scores in video 1 and video 3. However, the lack of a significant difference between the experimental and control groups in the amount of change between video 1 and video 3 suggests that more practice in the use of the CSM might result in a significantly different increase in teaching effectiveness.

The CSM represents a formal structure for giving the TT detailed and objective feedback from the USs and the CTs both before and after their classroom teaching. The TTs in the CSM group were observed three times during the semester, whereas the TTs in the group non-CSM group were supposed to be observed twice. Interview data from the TTs in the non-CSM group indicated that some were observed once or not at all during the semester. During each of the three observations, the CSM group took part in pre-observation and post-observation conferences. During the pre-observation conferences, the TTs received oral or written feedback about their lesson plans, which enabled them to revise and reshape their lesson plans before teaching.

During the post-observation conference, the US and the CT gave detailed, reflective, and data-based feedback about the teaching performance of the TTs. This feedback included both the strengths and weaknesses of the lessons. Moreover, a detailed action plan for future teaching was created by the TTs, USs and CTs. This cycle was repeated three times for each TT from the experimental group in a semester.

The CSM also places a great emphasis on the role of the CT. Traditionally, the role of the CT in teacher training was limited to playing a supporting role in the process. The CT provided the classroom, the materials and other resources needed by the TT, but their feedback to the TT was often secondary to that of the US and generally played a small role in determining the grade for the TT. The CSM elevates the CT to an equal position with the US. The CT's feedback is a critical component in the CSM model because it takes advantage of the CT's teaching experience as well as his/her knowledge of the students and the curriculum. In the CSM, it is expected that the CT will provide the TT with daily

oral and written feedback on the TT's performance in the classroom. The traditional model of teaching practice does not require this of the CT; thus, students in the non-CSM group may or may not have received this type of feedback from their CT.

One other important feature of the CSM, which may have influenced the TTs in this group, was the length of time in a particular classroom. The TTs in the CSM group remained in the same classroom for the entire semester, whereas the TTs in the non-CSM group were moved to different classrooms every three weeks, as per the traditional practice. Thus, the TTs in the CSM group were better able to understand the developmental and curricular needs of their students. In addition, extended time in the same classroom allowed the TTs in the CSM group the opportunity to develop a more personal relationship with their students. The TTs in the non-CSM group were barely able to learn about their students before they were moved to another classroom. The TTs in the non-CSM group lacked sufficient time in one classroom to understand the specific curricular needs of the students in that classroom.

Despite the consistent and statistically significant differences between the teaching performances of the CSM group and the non-CSM group in video 1 and video 3, the amount of change in the TTs' scores between Video 1 and video 3 were not significantly different for the two groups. Thus, both groups increased the scores of their teaching performances from the first to the third videotaped lesson. However, there were some trends in these data that may indicate an advantage for the CSM group. An examination of the change in scores between Video 1 and video 3 showed greater variability in the non-CSM group. Scores for five of the TTs in this group actually decreased between the first and third video lessons. Only one TT in the CSM group showed a decrease in score, and this difference was less than 1 point.

These results represent only the preliminary analysis of data collected during the pilot phase of this project over the course of one semester. However, the results are encouraging. The CSM group's consistently higher scores on the evaluation of their videotaped teaching suggest that using the CSM may have a positive effect on the TTs' classroom teaching. The random selection of TTs into either the CSM or non-CSM group ensured that any differences found between the two groups were due to the CSM.

The increase in the CSM group's scores from video 1 to video 3 may reflect the relatively short time the CSM group experienced the CSM process. Only approximately 3 months elapsed between the first and third videotaping. The CSM is a process that requires a significant investment of time by all constituents. The CSM radically changes the roles of both the CT and the TT from their traditional roles in the teaching practice. This type of change may require more time from each stakeholder to adjust to than the 3 months between video-recordings. Thus, it is possible that comparing the teaching performances over a longer period of time will reveal more significant differences between the CSM and the non-CSM group.

Because no studies have used an experimental design to compare the CSM as described above with other traditional models, it is not possible to state how these results compare to other similar studies. The majority of studies discussed in the literature review was used within model comparisons and did not compare one model to another, as was performed in the present study.

Conclusions

Although clinical supervision is not a new way of conducting teaching practice, there is a dearth of studies that examine its effectiveness compared with other methods. Therefore, the current study is pivotal, and it is one of the first studies to compare the outcomes of teaching practice relying not only on the evidence that comes from CTs' and TTs' views but also on the analysis of TTs' teaching performance.

The present study reports only on the preliminary data collected during the pilot phase of a larger, three-year research project. Initial evidence shows that the experimental group that used the CSM had consistently higher scores than those of the control group. These results give partial support to the idea that the CSM is an effective way to improve teaching practice. However, future research that compares the long-term effects of the CSM is necessary because the model requires a considerable investment of time and resources to be truly effective.

It is clear that any teaching practice will result in improvement of the TTs' performance because the process itself increases experience and exposure to real classroom environments (Darling-Hammond, 2006; Ekiz, 2006; Waite, 1995). However, our results partially support the idea that a highly structured

and organized model of reflection and feedback maximizes the effectiveness of teaching practice. The CSM is such a model that incorporates the skills and resources of all stakeholders in a collegial atmosphere. Though the implementation of the model requires time and resources, it pays off by producing more effective teachers. The CSM provides many opportunities for professional development because it enables the TTs to be reflective of their own performance. The CSM can bridge the gap between theory and practice not only in micro- (CT, TT, US) but also in macro-level (HEC, Ministry of National Education, school, and university) partnerships by providing opportunities for critical self-assessment, reflection, and cooperative planning.

In conclusion, CSM is a promising model to increase the quality of teacher education and a good alternative to other structured models. However, its strength lies in the involvement of triad partnerships rather than dyads. The feedback received from the field practitioners and teacher trainers will certainly be different as the perspectives are different. From the two ends of the continuum, the TT becomes the bridge that connects theory and practice. Therefore, we strongly suggest that both the CT and the USs take active roles in preparing TTs for their future profession.

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