Teachers' Perception of Benefits and Drawbacks of Different Instructional Approaches on Their Learning[1]

Hanan Khaled[2], Kara Mac Donald[3], Tarek Elgendy[4], Onsy Shenouda[5], & Aziza Ghanim[6],

Defense Language Institute, Monterey, CA, USA

Abstract

With the goal to effectively produce a cadre of trained and ready foreign language (FL) teachers, the academic debate is not only focused on what content knowledge and skills the teacher needs, but also on how to best deliver teacher training in order to acquire such knowledge and skills (Darling-Hammond et al., 2017). Hence, it is particularly important to evaluate the design and facilitation of teacher professional development (PD) courses to maximize learning and transfer of training. This action research study investigated the instructional approaches offered in a PD course in a FL institute and teachers' perceptions of benefits and drawbacks of each approach on their learning. A mixed method approach (Teddlie & Tashakkori, 2009; Tsushima, 2017) was followed to obtain a holistic understanding of the issue. Quantitative and qualitative data were collected. This included tracking the time spent on different instructional approaches over two iterations of the course in two different Middle-Eastern (ME) language schools and using a survey with open-ended questions to collect teachers' input about the instructional approaches. Four course facilitators and thirteen teachers participated in the study. Data analysis indicated that mentoring played a significant role in participants' learning. The mentoring sessions embedded within the workshop instructional hours and the one-on-one ad hoc out of class mentoring sessions, constituting 73% of the total instructional hours, were perceived as being instrumental to the participants' learning experiences. One implication for teacher trainers is that they need to be aware of what specific personal and professional qualities they bring to mentoring teachers or what skills they do not yet possess. Teacher training courses and on-going reflective practice need to include such opportunities.

Resumen

Con el objetivo de formar docentes de idiomas extranjeros (FL) capacitados y preparados, el debate académico no solo se centra en el contenido de conocimientos y habilidades que el maestro necesita, sino también en la mejor forma de brindar capacitación docente para adquirir tal conocimiento y habilidades (Darling-Hammond et al., 2017). Por tanto, es particularmente importante evaluar el diseño y la facilitación de los cursos de desarrollo profesional docente (PD) para maximizar el aprendizaje y la transferencia de capacitación. Este estudio de investigación-acción indagó sobre los enfoques de instrucción ofrecidos en un curso de PD en un instituto de FL y las percepciones de los maestros sobre los beneficios y las desventajas de cada enfoque en su aprendizaje. Se utilizaron métodos mixtos (Teddlie y Tashakkori, 2009; Tsushima, 2017) para obtener una comprensión holística del problema. Se recogieron datos cuantitativos y cualitativos. Estos incluyeron el seguimiento del tiempo dedicado a diferentes enfoques de instrucción durante dos iteraciones del curso en dos escuelas de idiomas diferentes del Medio Oriente (ME) y el uso de una encuesta con preguntas abiertas para recopilar la opinión de los maestros sobre los enfoques de instrucción. Cuatro facilitadores del curso y trece maestros participaron en el estudio. El análisis de los datos indicó que la tutoría desempeñó un papel importante en el aprendizaje de los participantes. Las sesiones de tutoría integradas dentro de las horas de instrucción del taller y las sesiones de tutoría individuales fuera de clase, que constituyen el 73% del total de horas de instrucción, se percibieron como instrumentales para las experiencias de aprendizaje de los participantes. Una implicación para los formadores de docentes es que necesitan ser conscientes de las cualidades personales y profesionales específicas que aportan a los docentes de mentoría o qué habilidades aún no poseen. Los cursos de formación docente y la práctica reflexiva continua deben incluir dichas oportunidades.

Introduction

In order to enrich students' skills, educational institutes work on promoting the continual intellectual, experiential, and attitudinal development of teachers. With the goal of educational institutions to effectively

1 This is a refereed article. Received: 11 April, 2019. Accepted: 22 November, 2019.
2 hkhaledusc2017@gmail.com
3 kmacd@rocketmail.com
4 teglendy@msn.com
5 onsy.w.shenouda@dliflc.edu
6 aziza.ghanim@dliflc.edu

produce a cadre of trained and ready faculty, the academic debate is focused not only on what content knowledge and skills the faculty needs, but also on how best to deliver faculty training in order to teach such knowledge and skills, and to socialize teachers into the literacies of the field (Andrews & Lin, 2018). Teachers across various contexts have different learning and teaching backgrounds. The challenge lies in providing in-service professional development (PD) to foreign language (FL) teachers, who have well-established frames of reference of learning and teaching. Therefore, it is essential to tailor PD courses to attend to teachers' perceptions of how they learn best and their prior knowledge of FL teaching and learning (Darling-Hammond, 2006). An indispensable factor in developing participants' skills is designing and implementing PD programs that attend to teachers' developmental needs that are context specific. Enhancing teachers' skills increasingly empowers them to help students gain and retain the needed multi-faceted linguistic skills (Darling-Hammond, 2010). According to Darling-Hammond et al. (2017), effective teacher development programs have seven characteristics: 1) to focus on content, 2) to incorporate active learning, 3) to support collaboration, 4) to use models of effective practice, 5) to provide coaching and expert support, 6) to offer feedback and reflection, and 7) to have sustained duration.

Serving in various faculty development positions, the authors examined an in-service PD course as part of producing a trained and ready faculty at their institute to offer considerations for FL teacher PD training in other contexts. The selected course was the Diagnostic Assessment (DA) Certification Course, which is an institute-wide PD course that has been provided by faculty training specialists in different undergraduate FL schools for more than three years. The DA course focused on the teaching of DA, diagnostic teaching and differentiated instruction. Such content supported teacher learning within teachers' classroom context in the previous three areas. Common PD training unconnected to the teaching context is valuable, but did not compare to training provided to teachers with the opportunity to practice with their students at the time of training (Heller et al., 2012). Darling-Hammond et al. (2017) claim that teachers who attend PD relevant to their classroom practices outperform those who attend generic PD and they can retain their content learning longer.

Additionally, the DA course design embraced different instructional approaches: individual work, pair/group work, facilitator's lecture, participant's lecture, and interactive lecture. The design appealed to the teachers as most activities were hands-on, utilizing authentic material relevant to their students' proficiency levels. This design provided teachers the opportunity to work with their students, apply what they are learning, and discuss their students' personal and linguistic profiles and performance.

Therefore, teachers had the opportunity to work together, and learning outcomes were fostered among them, rather than transmitted by the course facilitator. By collaborating with each other and with the course facilitators, teachers created a positive change in their practices (Johnson et al., 2010). Mentoring/tutoring the teachers was part of the work of course facilitators. They shared expertise about content and evidence-based practices in diagnostic teaching and differentiated instruction with teachers. Mentoring was attentive to teachers' distinct needs. It gave teachers time to absorb the concepts they are learning, reflect on their teaching strategies by checking them against the institute best-practices, and adjust instructional practices to achieve institute goals. Feedback and reflection helped teachers move toward the expert vision of practice (Dos Santos, 2016; Kelly & Cherkowski, 2014). The course was offered over a period of approximately three months. Teachers met once or twice a week to attend the course and to work closely with peers and with their assigned mentors/course facilitators. The researchers believed that such time is adequate for teachers to learn, practice, implement, and reflect upon their learning and therefore, make changes in their practices.

Research indicated that the previous characteristics should create an effective learning experience for teachers (Farrell, 2007; Minott, 2008; Vermunt, 2014). However, it was observed that teachers responded differently to instructional approaches in the course, which included lecturing, interactive lecturing, group and pair work and mentoring. The role of pre-planned embedded group mentoring in the course and the role of ad hoc one-on-one mentoring utilized by participants in the course have increased each iteration with respect to overall course instructional hours. To provide the increased mentoring, it was necessary to identify teachers' perception of its role and value in the DA Certification Course, addressing DA using personal and linguistic profile tools, diagnostic teaching and differentiated instruction, with regard to the total instructional course hours. Subsequently, this will help identify if the course design and/or facilitator instructional practices should be adjusted.

As it was particularly essential to evaluate the design and facilitation of PD courses to maximize teachers' learning, this action research intended to measure the types of instructional approaches followed in the DA course and how teachers perceived the benefits and drawbacks of such approaches to their learning. Collecting evidence about the type of instructional approaches used in the DA course and teachers' perception of the impact of each approach on their learning was important in order to evaluate the design and facilitation of PD courses. The results and implications of this action research could thus inform, not change, the institute's faculty development paradigm, by providing information on teachers' view of mentoring in their PD.

Literature Review

The literature review highlights theoretical contributions on the best ways to deliver effective PD to teachers, considering their own learning perceptions. The central argument in this study rests on the researchers' view of teacher PD courses where teachers build their own knowledge and support the learning of others. In this view, PD courses are grounded in adult learning theory. Teacher PD is viewed as a social and dialogic process that unfolds through collaboration, discussion and exchange where teachers are fully active and free to discover the purpose of their learning and set their own learning objectives (Fosnot, 2005). Teachers create their own knowledge by connecting it to their prior knowledge and by actively engaging in social learning interactions with others. Teachers' cognitive growth is stimulated when they are confronted with practical, contextual issues that require them to think in an innovative way (Gabler & Schroeder, 2003). As a result, effective PD based on adult learning theory (Knowles, 1984) must address how teachers learn, as well as what they learn. Therefore, factors to consider when designing teacher PD courses that address active learning for real life contexts, peer collaboration, exposure to modeling and examples, and access to peer mentors are:

1. Utilizing the teachers' experiences to frame the presentation of new concepts and strategies
2. Giving teachers the chance to determine what and how to learn
3. Fostering teachers' reflection and deeper analysis of concepts through active engagement

Active learning involves placing teachers in real-life and workplace collaborative activities, while fostering an appropriate environment for meaningful faculty training (Trotter, 2006). It offers sense-making opportunities which are important for teachers to analyze, implement, and reflect on the new strategies (Garet et al., 2001; Polly et al., 2015;).

Effective PD requires meaningful collaborative interaction and dialogue. (Vermunt, 2014). It can be offered through one-on-one or small group interactions to exchange ideas and to provide support to teachers as needed. When teachers engage in tasks jointly, they have the opportunity to learn from one another and adapt instructional practices based on their peer's input (Bazanos, 2014).

For teachers to adapt and fine tune their instructional practice they need to receive examples and demonstrations that exemplify what is effective practice (Fosnot, 2005). There are several techniques to include modeling in PD, such as videos, written case studies, demonstration lessons, unit/lesson plans, observation of peers, and curriculum materials with sample assessments and student work (Heller et al., 2012). PD cannot underestimate the importance of providing learning experiences in conjunction with curriculum and classroom materials, which is a way to promote effective practice as a type of modeling.

The role of mentors and coaches in teachers' learning is essential. Mentors and coaches guide and facilitate teachers' learning in the context of their practice (Powell et al., 2010). Trainers also serve as mentors by sharing their own experiences of what has proven to be successful practice (Darling-Hammond et al., 2017). Both mentors and coaches scaffold the effective implementation of new instructional practices. Showers and Joyce (1996) conclude that mentoring guides teachers in transferring training to classroom instruction.

Research highlights that active learning and reflection as part of course design suggest more transfer of training and therefore, have a positive impact on students' learning (Darling-Hammond et al., 2017). Active learning and reflection also permit teachers to engage in discussions associated with their work contexts. These activities usually happen in the context of mentoring or coaching. Teachers either prepare for or teach a class; they seldom stop to share their experiences with peers or receive feedback on their teaching. Yet,

feedback and reflection are essential for creating richer environments for teachers' learning (Hatton & Smith, 1995).

The last essential characteristic of effective PD is sustained duration. Darling-Hammond et al. (2017) assert that effective and meaningful PD requires time; a sporadic fragmented approach to PD does not afford the time necessary for teachers' learning. Although the authors did not establish an ideal time frame for PD courses, there is an implied suggestion that short, isolated course instruction does not lead to meaningful sustained instructional practice. Accordingly, those responsible for PD should exercise reflective practices and assess the quality of PD in the workplace in order to make constructive changes. They should train experienced teachers on mentoring and coaching.

Research Questions

The goal of this action research is to explore and answer the following two research questions:

1. What is the time division of the instructional strategies used in the PD course?
2. How do teachers perceive the benefits and drawbacks of the PD course instructional approaches and the effect of these approaches on their learning?

Methodology

To answer the research questions, this action research followed quantitative and qualitative approaches to collect data. At a US-based undergraduate FL institute, a total of thirteen in-service teachers attending the DA Certification course as part of their PD participated in the action research. The teachers were instructors of Arabic or one of its dialects in two of the institute's three US-based ME language schools. The DA specialist certification course consisted of five modules presented over 64 face-to-face instructional hours. Modules offered different assessment tools to diagnose FL learners' subjective and objective needs such as motivation, learning styles, preferred sensory channel modalities, and what students can and cannot do in reading, listening, writing and speaking at different proficiency levels. Additionally, teachers developed learning plans tailored to students' needs. The course used a variety of instructional approaches such as facilitator's lecture, interactive lecture, individual work, pair/group work, and participant's lecture. Additionally, to support teachers in completing the course assignments, each module included additional practicum sessions, totaling 8 hours per module. In these sessions, course participants worked individually or with the support of a course facilitator. Participants were also given the option to request one-on-one mentoring with the course facilitator by appointment, as needed. The one-on-one mentoring sessions were initiated by the participant and were not required hours and were additional to the total 64 course hours and the 40 practicum hours (one-on-group mentoring).

The study collected quantitative data during the delivery of the course and qualitative data after the completion of the DA Certification Course in the two ME schools. For the collection of the qualitative data and to answer the first research question, a questionnaire with nine open-ended questions was administered to the 13 course participants (see Appendix A). The questionnaire collected participants' perceptions of the value of the different instructional approaches to their learning during the course. Each question elicited the benefits and drawbacks of each mentioned instructional approach.

For the collection of the quantitative data and to answer the second research question, course facilitators documented the time in hours and minutes utilized during the DA course for different instructional approaches. Instructional approaches included: facilitator's lecture, facilitator's interactive lecture, participants' lecture, individual work, pair work, group work, and mentoring. The objective of collecting these data was to compare not only the utilization of the different instructional approaches scheduled into the course facilitation, but also the actual utilization of different instructional approaches as enacted with the total facilitation of course instruction (64 hours).

Data Analysis

The quantitative data regarding the use of instructional approaches were tallied for each instructional approach and used to compare the utilization of the different instructional approaches with the total course hours. The qualitative data responses from the participants' questionnaire were categorized based on the type of response and its content (i.e., beneficial, not beneficial, for what reason/s, due to what perception). These token statements were itemized and then quantified under topic categories based on interpretation

of data collected. The objective was to examine the value of different instructional approaches from the participants' viewpoints in order to capture an understanding of the instructional approaches and dynamic interactions that most influenced the participants' perception of learning.

Results and Discussion

The results of both the quantitative and qualitative data indicated that participants believed that mentoring played a significant role in their learning. The mentoring sessions embedded within the workshop hours and the one-on-one ad hoc out-of-class mentoring sessions, constituting 73% of the total instructional time, were perceived as being instrumental to the participants' learning experiences. The most significant results regarding this finding are presented and discussed below.

Utilized Classroom Instructional Approaches.

The length of the DA Certification Course was 64 hours and group work was the most utilized classroom instructional approach with 42%. The lesser utilized instructional approaches were interactive lecture with 16.7%, participants' lecture with 14%, facilitator's lecture with 8.5% and pair work with 5.2%. The least utilized classroom instructional approach was individual work with 4.5 % (see Figure 1).

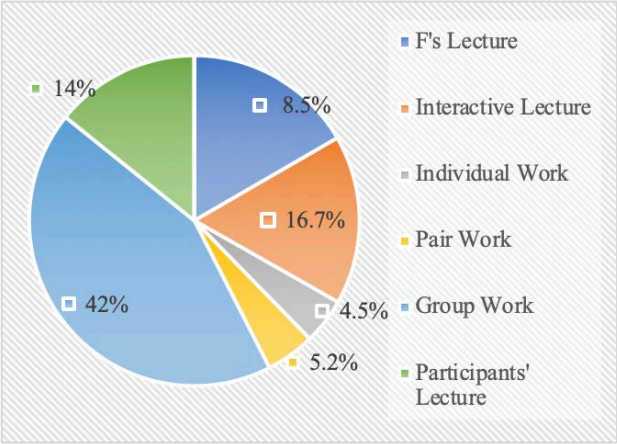

Figure 1: Instructional Approaches in 64 Hours

The participants also attended 40 hours of practicum sessions (one-on-group mentoring) where they worked on their portfolio assignments with the support of the course facilitators. In addition to the 40 hours of practicum sessions, participants sought additional one-on-one mentoring hours not scheduled in the course. This one-on-one mentoring for the 13 participants totaled 95 hours and 39 minutes over the duration of the course. These one-on-one mentoring sessions focused on participants' individual needs and varied in length depending on the participant. The total time utilized for mentoring in course practicum sessions (40 hrs.) matched with the ad hoc one-on-one mentoring sessions consisted of 135 hours and 39 minutes. This was just over twice the total amount of the instructional time in the course.

It is worth mentioning that not all participants needed the same amount of mentoring time. For example, some participants needed only one, one-on-one mentoring session for support and guidance and they were able to submit a suitable and satisfactory assignment for the final portfolio. Others needed two or three follow up, one-on-one mentoring sessions to produce a polished document. Some other participants needed support with foundational principles of the course and required significant guided mentoring to successfully master the course content and to effectively meet the assignment requirements. The average mentoring provided was 12 hours per participant; some participants used only as little as two hours and some participants exceeded 20 hours of one-on-one mentoring. The reasons behind many hours of one-on-one mentoring were either academic or affective.

Teachers' Perception of Mentoring. In response to the first item in the survey "among the following types of instructional activities used in the DA Certification course, which one or ones was/were most helpful in grasping the DA concepts?", mentoring whether in practicum sessions (e.g., individual support or group support) or in one-on-one mentoring sessions was the favored instructional approach. Twelve teachers out of 13 (92%) responded in favor of the use of one-on-one mentoring. Group mentoring was the second

favored instructional approach. 77% of the participants commented on a preference for the use of group mentoring. The remaining instructional approaches were preferred significantly less, with interactive lecture receiving a 62% of a preference among participants. Mentoring was the most used instructional approach in teacher PD in the DA Certification Course. Teachers participated in the scheduled practicum sessions and in the ad hoc one-on-one mentoring. Table 1 presents the participants' reference to instructional approaches in the questionnaire responses.

Instructional Approach	Tokens of Mention
One-on-one mentoring	12
Group mentoring	10
Interactive lecture	8
Facilitator's lecture	4
Group work	4
Pair work	3
Individual work	1
Participant's lecture	1

Table 1: Participants' Reference to Instructional Approaches

The analysis of the participants' perception of the benefits of mentoring were categorized into: i) practical application of theory and practice to complete course assignments (i.e., assignments), ii) meaningful application of theory and practice to students and teaching team (i.e., practice), and, iii) cognitive, professional and personal development (i.e., development). Participants expressed that mentoring sessions helped them better process the content, apply concepts to classroom practice and complete the course assignments. During the mentoring sessions, the DA course facilitators answered specific questions and explained DA concepts, processes, assignments, and offered tips on how to carry out DA and Differentiated Instruction (DI) according to the participants' needs. Interaction with the course facilitators offered through one-on-one and group mentoring provided the additional support needed. One participant wrote, "The impact of mentoring on my DA training cannot be undervalued. The guidance and support I have received led me to believe in my future as a DA specialist and removed any concerns I had." Another indicated that one-on-one mentoring offered him a great opportunity to learn and practice the concepts of DA.

Additionally, not only did the mentoring sessions support participants in successfully completing the course, but also helped them effectively conduct successful DA with students and provide students and teaching teams with meaningful and practical recommendations (i.e. transfer of training). One participant wrote, "Extended mentoring efforts helped reach more students in time efficiently and share knowledge." Since the experience of each participant enrolled in the course was different, the concepts addressed in the course face-to-face instructional sessions may not have been sufficient for some participants to feel confident with the material. Therefore, the mentoring sessions served as a support for mastering the pedagogical theory and implementation of practices for their PD as well as increasing the self-confidence of participants (see Appendix B).

From the data presented in Appendix B, participants were first concerned with and focused on completing assignments and meeting course requirements. Although an elective PD course, success in the course would be known to their supervisors and possibly their peers. Next, the data indicated that participants were focused on their professional growth, and lastly on the application of learning in the course to instructional practice. Since the participation in the course was teacher initiated, it was appropriate that the participants sought development for factors including saving professional and personal face. However, it should be noted that participants responded less directly to questions regarding the course's role on informing instructional practice as they interpreted PD as a precursor to informing instructional practice (Rauf et al., 2017). The following sections describe participants' perception of the different instructional approaches in more detail.

Participants' Perception to Facilitator's Lecture.

Collaboration and participant interaction are essential features of well-designed PD courses, but the role of a traditional facilitator lecture is valuable in course design (Regmi, 2012). A facilitator lecture should not solely be understood as a unidirectional mode of transmission within which a monologic form of communication puts participants in a passive role. The term 'lecture' makes many individuals think of a mass auditorium with hundreds of passive learners. Yet a lecture still can be a learning experience where the voice of the lecturer, or facilitator, is moderate and combined with student active learning based on the lecturers' experiences and knowledge. Although internal within the individual, the experience is a dialogic relationship between lecturer/facilitator and learner/participant. Even if not a spoken exchange, participants do respond and dialogue with the lecturer. It is just not immediately known by the lecturer/facilitator how learners interpret the content.

Benefits	Drawbacks
• Trains participants to develop study skills and acquire answers independently • Provides understanding of the content with respect to module objectives • Permits participants to understand what to focus on in module content • Ensures learning outcomes in participants' minds • Helps with modeling tasks	• Involves a lot of theory and less practice for assignment completion • Is often lengthy • Does not promote interaction • Requires out-of-class reading of long articles • Lacks examples for practice

Table 2: Participants' perception of facilitator's lecture

As presented in Table 2, participants' responses reflected that facilitators' lectures in the course developed many academic meta-skills as well as specific course content knowledge. Participants indicated that lectures trained participants in developing study skills and acquiring answers independently; fostered understanding of the content with respect to module objectives; enhanced knowledge of content and the ability to break down information; permitted understanding of what to focus on in module content; ensured learning outcomes in participants' minds; and assisted with modeling tasks.

However, the drawbacks of facilitator lectures reflected participants' desire for practical application of content from in-service PD courses, which may also have informed their desire for interactive activities as opposed to lectures. Although participants may be familiar with lectures as a form of instruction in their educational experiences based on age and country of origin, they had come to expect a more practical and interactive approach regarding in-service training at the FL institute. Additionally, participants perceived that the lecture required them to do much out of class reading, which may have presented a workload issue during the regular day as a platform classroom teacher. Although these drawbacks were significant for future course adaptation and delivery, they were not necessarily applicable to the research questions related to the role of mentoring in the course addressed in the study.

Participants' Perception of Pair and Individual Work.

Although pair and individual work were distinct, as were the perceptions of each by participants, they are presented jointly as they reflect related perceptions that inform the understanding of mentoring within the course, albeit not always mentoring from facilitators as presented in a previous section. For example, the ability to collaborate with a fellow course participant permitted the opportunity to: reflect and discuss concepts; test understanding of content, analyze one's work; work at one's level or area of need; focus on practical examples to understand one's own work. Yet, the participants' feedback regarding the role of individual work indicated that the time allocated to reflect and work independently fostered similar learning development. This could be because of the joint use of both pair and individual work together or it could be merely the result of individual work based on the individual and the experience in the course.

However, what is noteworthy is that both instructional approaches, pair and individual work, fostered participant independence and autonomy in ways similar to those of mentoring sessions. Like mentoring sessions, the individual and pair work permitted participants to reflect on and dialogue about the course

content and link theoretical concepts to practical application. Therefore, mentors and coaches, whether course facilitators or peers, scaffolded learning and effective implementation of new practices.

In sum and as presented in Table 3, the participants' responses to the value of pair and individual work in the course indicated that pair work was a form of mentorship and played a critical role in learning and practical application of the course content, as well as effective completion of course assignments. However, the opportunity to work and reflect individually within the course, in the presence of various levels of mentoring, supported the participants in successfully completing the course. It also helped them conduct successful DA sessions and provide students and teaching teams with meaningful and practical recommendations. In sum, the opportunity to work individually may have provided space for participants to synthesize information for application and develop more autonomy, but these developments may not have been possible without the scaffolding of mentoring in its various forms in the course.

Pair Work	
Benefits	**Drawbacks**
• Ability to learn from one another • Opportunity to reflect and discuss concepts • Ability to focus on practical examples to understand one's own work • Ability for facilitator to observe participants and guide and consult as needed • Fostering ability to voice thoughts and argue points of view • Gaining ideas and new views	• Lack of preparation for session by partner (i.e., readings) • Interruption of brainstorming process as partner was moving faster • Different cognitive processing styles • Inability to focus on areas of interest/need

Individual Work	
Benefits	**Drawbacks**
• Ability to test understanding of content • Ability to analyze one's own work • Ability to obtain a firm understanding before moving to the next module • Ability to gain personalized feedback and guidance from facilitator • Ability to work at one's own level and topics of interest/need • Assisting in organizing content easily • Fostering more one's independence	• Theoretical and less practical for assignment completion • Often lengthy • Not interactive • Out of class reading of long articles is required • Examples for practice are lacking

Table 3: Participants' perception of individual and pair work.

The drawbacks of the two instructional approaches, pair and individual work, shared less in common with respect to participants' learning and development, but rather provided possible insight to the participants' readiness for the course, experience of working academically with other learning preferences, and response to the course demands within their professional workload. Although these drawbacks were significant for future course adaptation and delivery, they were not necessarily applicable to the research questions related to the role of mentoring in the course addressed in this research.

Implications

Evaluating the results based on the seven characteristics of effective teacher development (Darling-Hammond et al., 2017) provided an operational frame within which to assess the results of the role and value of mentoring, and also individual work (i.e., independent learning) in the DA Certification course and for teacher PD and training overall (i.e., pre-service and in-service training). Such evaluation must consider the elaborate nature of mentoring. In this sense, Koki (1997) asserts that for effective mentoring to happen, a deep understanding of the complexity of its nature, the processes needed over time, and the applicability within the organization are required.

The complexity of mentoring was also determined by analyzing it from the perspective of teacher development and most specifically through the seven characteristics proposed by Darling-Hammond et al. (2017), which call for the content to be focused, the incorporation of active learning, supportive collaboration, the use of models of effective practice, providing coaching and expert support, and offering feedback and reflection that was provided for a sustained duration of time.

The first criterion called for the content to be focused, which was in part related to the course design, but also impacted the instructional approaches of mentoring sessions due to the personalized nature and differentiation of instruction in such teaching contexts. The last criterion for the support to be sustained was also in part related to the course design, but also to the delivery and scheduling of mentoring sessions. These two criteria are addressed in the following discussion of the other five criteria, rather than independently. The remaining five criteria, active learning, supportive collaboration, use of models of effective practice, coaching and expert support, and offering reflection and feedback, also intersected with general course design and delivery of instruction. However, they particularly reflected the role and value of mentoring in the DA Certification course as expressed by the participants.

This was not to say that these characteristics were not provided to participants through other modes of instruction during the course (i.e., facilitator's lecture, interactive lecture, individual work, pair work and participant's lecture), as the data reflected participants' positive assessment of Facilitator's Lecture, Interactive Lecture and Pair Work (as shown in Table 1). As has been listed in previous sections, mentoring played a crucial role within the PD process. As a result, the implications of the quantitative data results regarding the following five criteria are discussed, in light of the significant amount of time utilized on mentoring from the qualitative data. Recommendations and limitations are provided.

Mentoring as a Means of Incorporating Active Learning.

Mentoring as a form of PD implies, among other actions, guiding, leading and advising teachers, whether novice or experienced. Feiman-Nemser and Parker (as cited in Darling-Hammond et al., 2017) suggest that mentor teachers also help less experienced teachers solve problems related to teaching and learning by means of reflection. Such problem solving and reflection was directly related to the professional context of the new teacher as well as even an experienced teacher facing an unfamiliar issue or problem (protégés). With this in mind, no PD was possible if the mentoring process was divorced from the protégé's reality, which illustrated the essence of active learning.

According to Darling-Hammond et al. (2017), active learning implies "moving away from traditional learning models that are generic and lecture based toward models that engage teachers directly in the practices they are learning and, preferably, are connected to teachers' classrooms and students" (p. 7). Thus, mentoring, along with active learning, became a powerful tool for new teachers to revamp their practices based on the real needs of their contexts. For this reason, one of the essential qualities of mentor teachers stated by Koki (1997) is "a range of interpersonal skills to fit a variety of professional encounters and situations", (p.3) which showed how diverse the functions of a mentor teacher can be.

Mentoring as a Means of Collaborative Support.

Darling-Hammond et al. (2017) highlight diverse types of collaboration; from one-on-one or small groups to schoolwide or districtwide collaboration. Since collaboration has been found to be effective in promoting positive changes beyond individual classrooms, it is considered an important feature of any well-designed PD. In fact, Feiman-Nemser and Parker (1992, cited in Darling et al., 2017) point out the pivotal role of collaboration as a construct for mentors to help novice teachers solve problems and guide their growth.

On the other hand, Freedman and Jaffe (as cited in Koki, 1997) state that an individual's genuine desire to engage and invest in the teacher's development is an essential trait of a mentor. In other words, a mentor should be essentially collaborative and must have developed social skills. No effective mentoring was possible without the willingness to collaborate.

Mentoring as a Means of Modeling Effective Practice.

Gay (as cited in Koki, 1997) refers to mentoring as a form of modeling. Indeed, it was hard to see it as separate processes. On the one hand, modeling is "the process of serving as a model" (Koki, 1997, p.2) and

one of the core functions of a mentor teacher was to be a model for novice teachers to follow. On the other hand, it was important that mentors saw and perceived themselves as such.

From the perspective of novice teachers, a mentor should represent for them what they want to be as a professional and practitioner. However, modeling was not limited to the personal/professional dimension. Darling-Hammond et al. (2017) propose also the curricular and instructional models and the modeling of instruction as a means to "help teachers to have a vision of practice on which to anchor their own learning and growth" (p. 11).

Another way to employ effective practice as a means to promote modeling was through the incorporation of models for students' work analysis in relation to teachers' practice. This indicated that modeling was a common element that was projected not only towards the mentor as a model but also towards curriculum, instruction and classroom.

Mentoring as a Means of Coaching and Expert Support.

Mentoring and coaching are sometimes perceived as equal processes, and even educators employed such terms interchangeably. Koki (1997) explains that the act of a more experienced teacher providing professional support to a more novice teacher through collaborative reflection on the novice teacher's practice constituted coaching. This could be at any stage of an individual's career and is not limited to the novice teacher's stage of development as mentioned above. In fact, coaching may often be associated with experienced practitioners needing/seeking to develop further.

The authors of this study stress that coaching, as a form of support, is a component of mentoring and also an essential quality of mentor teachers. They characterize coaching as less complex and demanding than mentoring. Such differentiation is based on the fact that mentoring implies a range of competencies and more dimensions than coaching does. In fact, Darling-Hammond et al. (2017) maintained that "coaching or other expert scaffolding can support the effective implementation of new curricula, tools, and approaches by educators" (p. 13). This is consistent with what Koki (1997) calls *function*, which is basically what distinguishes mentoring from coaching. In sum, effective PD must include the development of all coaching skills and processes to truly "foster increased self-direction and self-responsibility of the beginning teacher" (Koki, 1997, p.3).

Mentoring as a Means for Feedback and Reflection.

No effective PD or instruction is complete without feedback and reflection on the goals, expectations, process and outcomes. Darling-Hammond et al. (2017, p.14) indicate that these are "two other powerful tools found in effective PD". They are commonly implemented during mentoring and coaching but are not necessarily limited to processes. Feedback and reflection, as Trotter (2006) mentions, are core components of adult learning theory.

Sempowicz and Hudson (2011) claim that teachers "need to participate actively in their own learning, by reflecting and acting on the mentor's constructive feedback provided during planning and feedback dialogue sessions" (p. 11). This indicates that PD must provide explicit spaces for feedback and reflection to take place. In this sense, these authors propose that reflection and feedback must be based on the mentor and mentee's objectives.

One-on-one and small-group mentoring in addition to planned class lessons supported the mentees' teaching practices. Mentoring also provided opportunities to tailor explanation of concepts to teachers' individual needs and to go back over the lesson activities. This gave the mentees the chance to test the criteria and certainty of their knowledge. Moreover, mentoring developed the mentees' abilities to reflect on their own teaching (Sempowicz & Hudson, 2011).

Action Plan

Action research is defined as "an inquiry conducted by educators in their own settings in order to advance their practice and improve their students' learning, and therefore, an appropriate and ideal model for a practitioner- researcher" (Efron & Ravid, 2013, p. 2). Herr and Anderson (2015) explain that action research provides action-oriented outcomes to benefit those involved. Since mentoring as an instructional approach

was found valuable by the participants, course facilitators and those involved in teacher PD need to develop and sharpen their mentoring skills.

To effectively develop the qualities described to be a successful mentor teacher, those involved in teacher training need to have PD opportunities that address content across a range of disciplines. Many of the qualities of effective mentors are not only based on existing professional competence and experience, but are also informed by the fields of principles of adult education, communication, and psychology. Formal PD, reflective teaching practice and individual action research addressing mentor roles and responsibilities, mentor-teacher interaction, interpersonal and communication skills, and coaching skills will permit teacher trainers to develop their skills as mentors. This development will positively impact the learning of teachers in their courses and programs, which then ultimately results in student achievement.

As a starting point, mentor teachers can initially self-assess their mentoring skills to identify what specific personal and professional qualities they bring to mentoring teachers. Portner (2008) presents a mentor self-assessment survey for experienced teachers who aspire to be mentors. Before becoming mentors, teachers can use the survey to assess their orientation to working with people, listening skills, respect for others, empathy, desire to support the development of other teachers, patience and ability to explain subject matter topics. A self-assessment can permit mentors to identify how to keep current with their own PD and what steps they are taking or need to take to be up-to-date with teaching, curriculum and mentoring. In the process, mentor teachers can identify what they gain from being a mentor or what has not yet been achieved by being a mentor.

Conclusion

The goal of educational institutions is to effectively produce a cadre of trained and ready faculty. Therefore, the academic debate is focused not only on what content knowledge and skills the faculty needs, but also on how best to deliver faculty training in order to acquire such knowledge and skills. The goal of this research was to examine the value of different instructional approaches from the participants' viewpoints to capture an understanding of the instructional approaches and dynamic interactions that most influenced the participants' perception of learning. The results showed that the participants value one-on-one mentoring as instrumental to their learning experience. According to the participants, they used one-on-one sessions to reflect and discuss concepts; test understanding of content, analyze one's work; work at one's level or area of need and to focus on practical examples to understand one's own work. Not only was it particularly important to evaluate the design and facilitation of teacher PD courses to maximize learning and transfer of training, but it was also essential that the course design engage teachers in active learning, offer a space for teachers to share ideas and collaborate in their learning and offer job-embedded contexts to practice what was learned.

References

Bazanos, M. (2014). *A Delphi study: Teachers' perception of benefits, prerequisites, facilitators, and barriers of peer observation for professional learning in secondary public schools* (UMI No. 3494486) [Doctoral dissertation, Brandman University]. ProQuest Dissertations and Theses Global.

Darling-Hammond, L., MacDonald, M., & Koppich, J. (2006). *Powerful teacher education: Lessons from exemplary programs*. Jossey Bass.

Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future.* Teachers College Press.

Darling-Hammond, L., Hyler, M. E., Gardner, M., & Espinazo, D. (2017). *Effective teacher professional development*. Learning Policy Institute. https://learningpolicyinstitute.org/sites/default/files/product-files/Effective_Teacher_Professional_Development_REPORT.pdf

Dos Santos, L. M. (2016). *Foreign language teachers' professional development through peer observation programme.* English Language Teaching, *9*(10) 39-46. https://doi.org/10.5539/elt.v9n10p39

Efron, S. E. & Ravid, R. (2013). *Action research in education: A practical guide*. The Guilford Press.

Farrell, T. S. C. (2007). *Reflective language teaching: From research to practice.* Continuum.

Fosnot, C.T. (2005). Teachers construct constructivism: The center for constructivist teaching/teacher preparation project. In C. T. Fosnot (Ed.). *Constructivism: Theory, perspectives, and practice* (pp. 205-216). Teachers College Press.

Gabler, I. C. & Schroeder, M. (2003). *Seven constructivist methods for the secondary classroom: A planning guide for invisible teaching*. Allyn & Bacon.

Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*(4), 915–945. https://doi.org/10.3102/00028312038004915

Hatton, N. & Smith, D. (1995). Reflection in teacher education: Towards definition and implementation. *Teaching and Teacher Education, 11*(1), 33–49. https://doi.org/10.1016/0742-051X(94)00012-U

Heller, J. I., Daehler, K. R., Wong, N., Shinohara, M., & Miratrix, L. W. (2012). Differential effects of three professional development models on teacher knowledge and student achievement in elementary science. *Journal of Research in Science Teaching, 49*(3), pp. 333–362. https://doi.org/10.1002/tea.21004

Herr, K. & Anderson, G. L. (2015). *The action research dissertation: A guide for students and faculty*. Sage. https://dx.doi.org/10.4135/9781452226644

Johnson, C. D. & Altland, V.(2004). No teacher left behind: The development of a professional collaboration. *Literacy Teaching and Learning, 8*(2), 63-82. https://readingrecovery.org/wp-content/uploads/2017/03/LTL_8.2-Johnson-Altland.pdf

Kelly, J. & Cherkowski, S. (2015). Collaboration, collegiality, and collective reflection: A case study of professional development for teachers. *Canadian Journal of Educational Administration and Policy, 169*, 1-27. https://journalhosting.ucalgary.ca/index.php/cjeap/article/view/42876

Koki, S. (1997). *The role of teacher mentoring in educational reform*. Pacific Resources for Education and Learning.

Merryfield, M. M. (2008). Reflective practice in global education strategies for teacher educators. *Theory into Practice, 32*(1), 27-31. https://doi.org/10.1080/00405849309543569

Polly, D., McGee, J., Wang, C., Martin, C., Lambert, R., & Pugalee, D. (2015). Linking professional development, teacher outcomes, and student achievement: The case of a learner-centered mathematics program for elementary school teachers. *International Journal of Educational Research, 72*, 26–37. https://doi.org/10.1016/j.ijer.2015.04.002

Portner, H. (2008). *Mentoring new teachers*. Corwin Press.

Powell, D. R. Diamond, K. E., Burchinal, M. R., & Koehler, M. J. (2010). Effects of an early literacy professional development intervention on Head Start teachers and children. *Journal of Educational Psychology, 102*(2), 299–312. https://doi.org/10.1037/a0017763

Rauf, P. A., Ali, S. K. S., & Noor, N. A. M. (2017). The relationship between models of teachers professional development and teachers' instructional practices in the classrooms in the primary schools in the state of Selangor, Malaysia. *International Journal of Education, Psychology and Counseling, 2*(5), 120-132.

Regmi, K. (2012). A review of teaching methods: Lecturing and facilitation in higher education (HE): A summary of the published evidence. *The Journal of Effective Teaching, 12*(30), 61-76.

Sempowicz, T. & Hudson, P. B. (2011). *Analysing mentoring practices to understand how a preservice teacher reflects on practice to advance teaching* [Paper presentation]. Australian Teacher Educators Association (ATEA), Melbourne, Australia.

Showers, B. & Joyce, B. (1996). The evolution of peer coaching. *Educational leadership, 53*(6), 12–16. http://www.ascd.org/publications/educational-leadership/mar96/vol53/num06/The-Evolution-of-Peer-Coaching.aspx

Trotter, Y. D. (2006). Adult learning theories: Impacting professional development programs. *Delta Kappa Gamma Bulletin, 72*(2), 8. http://teacherlink.ed.usu.edu/nmsmithpages/irex2012/Readings/Susan/Susan%20Turner%20Reading%201.pdf

Vermunt, J. D. (2014). Teacher learning and professional development. In S. Krolak-Schwerdt, S. Glock, & M. Böhmer (Eds.), *Teachers' Professional Development: Assessment, Training, and Learning* (pp. 79–95). Sense Publishers.

Appendix A

Survey

Action Research Questionnaire

1) Among the following types of instructional activities used in the DA course, which one or ones was/were most helpful in grasping the DA concepts –
Facilitator's Lecture, Interactive Lecture, Individual Work, Pair Work, Group Work, Participants' Lecture, Group Mentoring Sessions, and/or Mentoring One-on-One Sessions?
RESPONSE REQUIRED – N/A is not an option

2) With respect Facilitator's Lecture, what were the benefits and drawbacks of this form on instructional activity?
RESPONSE REQUIRED – N/A is not an option

3) With respect Interactive Lecture, what were the benefits and drawbacks of this form on instructional activity?
RESPONSE REQUIRED – N/A is not an option

4) With respect Individual Work, what were the benefits and drawbacks of this form on instructional activity?
RESPONSE REQUIRED – N/A is not an option

5) With respect Pair Work, what were the benefits and drawbacks of this form on instructional activity?
RESPONSE REQUIRED – N/A is not an option

6) With respect Group Work, what were the benefits and drawbacks of this form on instructional activity?
RESPONSE REQUIRED – N/A is not an option

7) With respect Participants' Lecture, what were the benefits and drawbacks of this form on instructional activity?
RESPONSE REQUIRED – N/A is not an option

8) With respect Group Mentoring Sessions, what were the benefits and drawbacks of this form on instructional activity?
RESPONSE REQUIRED – N/A is not an option

9) With respect One-on-One Mentoring, what were the benefits and drawbacks of this form on instructional activity?
RESPONSE REQUIRED – N/A is not an option

Definitions:

Facilitator's lecture – time spent by the instructor in talking to the participants, making a speech, speaking, explaining a point, holding the floor.

Interactive lecture - time spent by instructor in which he/she incorporates engagement triggers and breaks the lecture at least once to have the participants in an activity that lets them work directly with the material.

Individual work – participants are doing the work individually (not with the facilitator or someone else).

Pair work – participants are working in groups of two individuals and are exchanging information.

Group work – participants are working in groups of 3 or more individuals and are exchanging information.

Participant's lecture – the participant/s addresses the class as a whole, giving a briefing or explaining a point.

Mentoring, one-to-one –a facilitator guides and supports a participant to enhance his/her learning.

Mentoring, one-to-more than one –a facilitator guides and supports two to four participants in a small group to enhance their learning.

Appendix B

Participants' Responses about Mentoring

Comment	Benefit Category
"The impact of mentoring on my DA training cannot be undervalued. The guidance and support I have received led me to believe in my future as a DA specialist and removed any concerns I had."	Practice
"Facilitators smoothed the way; helped me with all assignments and filled me with the confidence to successfully carry out assignments".	Assignments
"However, mentoring also provided tailored feedback and support to participants that met their individual needs that was not received through other modes of instruction."	Development
"As you know, we are required to submit our project by the end of the training so, during the one on one mentoring sessions, we went through my work, the trainer provided me with personal feedback, then I work again in my final draft and sent it back to my trainer.I received further feedback based on what I had done. One on one sessions helped me a lot in finishing the portfolio and improved the quality of my work and my understanding."	Assignments
"I believe it was an excellent and necessary to tailor feedback in one-on-one session with the various participants. I learned a lot in the process."	Development
"Increase self-esteem"	Development
"Extended mentoring efforts and reach more students in time efficiently and share knowledge."	Practical
"It's beneficial for clarification of answering questions and following up with the progress of assignments."	Assignments
"Sometimes too noisy in practicum sessions (i.e. group mentoring)."	Assignments
"Put responsibility on the participants to do their part because the result will [be taken] to the student."	Practice
"Opportunity to accurately check the comprehension of the training material."	Assignments
"[Offers] opportunity in case there is a possibility that the learner [i.e. participant] might provide false or at least incomplete information [to the student].	Practice
"Helped with module [content] understanding."	Assignments
"Mentoring One-on-One Sessions for my learning"	Development