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Research Article

Analyzing the Coaching Based Professional Development Process of a Special Education Teacher

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Abstract

It is of paramount significance for teachers to develop themselves professionally, improving their theoretical knowledge, practice, and technological skills, as these elements bear a definitive influence on their teaching qualities throughout their entire vocational life. In this regard, one professional development approach is coaching. Adopting an action research design and conducted at the Research Center for the Education of Hearing Impaired Students (RCEHI) affiliated with Anadolu University in Turkey, this study aims to analyze the coaching based professional development process of a teacher-researcher working with hearing impaired students. The participants are a researcher, who is also the author of this article, and an experienced teacher trainer acting as a coach. The data collection tools used are video and audio records, documents, and reflective diaries. Data were analyzed using a systematic analytic analysis procedure. The data analysis revealed three primary themes concerning coaching based professional development; namely, planning and implementing professional development process, problems, and relevant solutions. Noteworthy features of the study are that the process is well-planned, goal-oriented, systematic, and cyclic. In addition, the process also takes into account individual characteristics and is based on effective communication with the coach and the coach's guidance. In accordance with the findings, it is suggested that guidelines be improved to explain how to benefit from coaching to enhance professional development and that coaching based approaches be made more common. Furthermore, future research may focus on the role of coaching on teachers' professional development and students' academic success.

Keywords

Teachers' professional development • Coaching • Special education • Competence holding one-on-one conversations • Action research

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It is of paramount significance that teachers develop themselves professionally, improving their theoretical knowledge, practice, and technological skills, as these elements play a crucial role in their teaching qualities throughout their professional life (Hunzicker, 2011; Rhodes & Beneicke, 2002). Accordingly, regular emphasis has been given to change and development in the nature of teaching profession (Loucks-Horsley, Love, Stiles, Mundry, & Hewson, 2003). As for teaching, professional development is defined as one of many processes providing effective teaching and learning environments by improving teachers' knowledge, skills, values, and attitudes (O'Gorman & Drudy, 2011). Ample amount of research within the literature has concluded that teaching quality – and thus students' success – can be enhanced by refining teachers' professional development (e.g., Costa & Garnsten, 2002; Obara, 2010).

Since the need for change and improvement in the teaching profession concerns all fields within education and educational sciences, professional development is a vital matter for teachers working in the field of special education (Easterbrooks, 2011; Sawyer, 2015). The rationale as to why special education teachers should develop themselves professionally are as follows: (i) the needs of school-age children have positively changed due to the expansion of early diagnosis and educational opportunities, (ii) advances in technological devices and systems, (e.g., hearing aids and cochlear implants), and (iii) new educational and instructional practices based on evidence (Cantrell & Hughes, 2008; Sawyer, 2015). In this regard, the professional development of teachers working with hearing impaired students who have language and communication barriers should also be considered crucial (Pakulski, 2011). Accordingly, two qualities that teachers of hearing impaired students should be competent about are ascertaining the baseline performance levels and holding either group or one-on-one conversations (Mahon, 2009; Spencer & Marschark, 2006). The ability to conduct conversations is a competence of critical importance for teachers of hearing impaired students because not only are these children's language and communication skills very weak; they also have poor verbal language skills and a very limited vocabulary (Cole & Flexer, 2016; Pakulski, 2011). Congruently, teachers of the hearing impaired are advised to plan one-on-one conversations with these children in order to support the development of their verbal language and communication skills (Mahon, 2009). One-on-one conversation is defined as a process during which a teacher and a student share their opinions and feelings about a planned event or character with the purpose of creating a reciprocal interaction atmosphere (Spencer & Marschark, 2006). In this sense, educators aim to teach this skill to future teachers of hearing impaired students via theoretical courses and teaching practice during undergraduate years (Easterbrooks, 2011; O'Gorman & Drudy, 2011).

Along with the need for professional development of teachers, including special education teachers, the literature is also heavy in terms of discussions

concerning methods to facilitate this development in the most effective manner (Obara, 2010; Orland-Barak, 2010). In this respect, short-term and large-scale professional development activities, such as seminars and certificate programs, have received negative criticism due to their offering limited interaction opportunities (Orland-Barak, 2010). Studies indicate the importance of constant and systematic professional development approaches based on one-on-one cooperation (Hunzicker, 2011; Jovanova-Mitkovska, 2010; Lowenhaupt, McKinney, & Reeves, 2013). The importance of continuity has been underlined very frequently in studies on the professional development of teachers (Jovanova-Mitkovska, 2010; Orland-Barak, 2010). Accordingly, the notion of Continuing Professional Development [CPD], meaning ongoing support for teachers while employed in their profession, has been devised by scholars (Jovanova-Mitkovska, 2010). It has been noted that systematic cooperation among teachers and sharing experiences gained from real practice are of great significance if CPD is to be a success (O’Gorman & Drudy, 2011). A review of the literature has revealed that there are different approaches as to how CPD is employed; namely, school-based development (O’Gorman & Drudy, 2011), personal professional development (Jovanova-Mitkovska, 2010), and teaching the teacher. In addition to these, coaching, which is defined as an experienced teacher’s endeavors to transfer his/her knowledge and skills to a less experienced teacher, is another frequently employed approach (Barkley, 2005; Costa & Garmston, 2002).

Relevant studies in the literature report that coaching is effective since it allows not only the exchange of teaching skills and experiences but also the opportunity to make plans cooperatively and to share perspectives on teaching (Lowenhaupt et al., 2013; Wong & Nicotera, 2003). In their study examining the findings of five previous studies focusing on coaching, Veenman and Denessen (2001) aimed to determine the contributions that coaching offers to the professional development of the teachers included in the samples. The researchers concluded that coaching based professional development programs helped to strengthen the teachers professionally. They also noted that coaching not only improved teachers’ reflecting skills (self-assessment) and analytic thinking skills but also assisted them in increasing the quality of their planning and practice. Similarly, Li and Chan (2015) studied a coaching based professional development program that they found to have a high influence on professional development. The results of several other studies examining coaching yielded that the process not only had positive effects on teachers’ professional development but also increased students’ literacy skills and verbal language development (Barkley, 2005; Onchwari & Keengwe, 2008). A number of other studies focusing on coaching special education teachers have also been identified as a result of the literature review. Gersten, Morvant, and Brengelman (1995) concluded that special education teachers benefitted tremendously from a coaching based professional development program, especially in terms of planning, implementing, and assessing the teaching-learning process. After

analyzing one-on-one studies conducted seeking to provide special education teachers with a coaching based professional development program, [Billingsley \(2004\)](#) found that the individual needs of teachers were met. In terms of quality, he found that the programs focused on current issues and that cooperation between participants was effective. Moreover, [Irinaga-Bistolas, Schalock, Marvin, and Beck \(2007\)](#) examined a coaching-based professional development process designed for special education teachers. The results of their study showed that special education teachers had the opportunity to receive individual support concerning whatever competence area they needed and that the cooperation-based approach in question not only positively affected the instructional process but also increased students' success levels. The authors listed the fact that the approach's ability to bridge theoretical knowledge and practice and the fact that it employed real practices during the one-on-one professional development process as the primary reasons for its success.

As a result, ongoing coaching processes based on one's individual needs and cooperation have recently become widespread throughout the world. International studies indicate that coaching contributes significantly to teachers' professional development and to the effectiveness of educational and instructional processes. On the other hand, several prerequisites have been listed in order to ensure the efficiency of coaching as a professional development process; one of these being the absolute necessity of their being tight cooperation among teachers within the process ([Cantrell & Hughes, 2008](#); [Onchwari & Keengwe, 2008](#)). Together with the prerequisites of coaching, the process should be non-stop and systematic and should follow a pattern of planning cooperatively, observing, and providing feedback ([Costa & Garmston, 2002](#); [Wong & Nicotera, 2003](#)). It is emphasized that the feedback provided by coaches contributes significantly to teachers' professional development ([Copland, 2010](#)). In short, feedback can be defined as providing planned and systematic information to teachers about their work for their professional development ([Copland, 2010](#); [Wilkins-Canter, 2010](#)). The content of feedback should focus on realistic, tangible, descriptive, and specific behaviors and competencies in order to increase the quality of professional development ([Scheeler, Ruhl, & McAfee, 2004](#)). In addition, both the positive and negative aspects of teachers' conduct and practices should be presented in a balanced manner so as to support their professional development ([Copland, 2010](#); [Scheeler et al., 2004](#)). As for the medium of feedback, the relevant body of literature states that it may be either oral or written ([Scheeler et al., 2004](#)). Furthermore, feedback given to teachers after short periods and immediately after their practice is noted to have a greater effect on teaching quality ([Copland, 2010](#); [Scheeler et al., 2004](#); [Wilkins-Canter, 2010](#)).

An analysis of studies focusing on the professional development of teachers in each field of education, including hearing impaired students and special education,

has revealed in-service educational training programs (large-scale organizations such as seminars and panels) run by Turkey's Ministry of National Education (MoNE) (Büyükoztürk, Akbaba-Altun, & Yıldırım, 2010). However, the results of national studies in Turkey have shown that the seminars and panels organized by MoNE are mostly theoretical, that they neglect individual needs, that they are short-term programs, and that no supportive content is provided to endorse the practice (Bakıoğlu, Hacifazlıoğlu, & Özcan 2010; Bümen, Ateş, Çakar, Ural, & Acar, 2014). Concentrating on the activities designed by MoNE to facilitate teachers' professional, Büyükoztürk et al. (2010) reported that almost half of the teachers employed by MoNE were in need of professional development after conducting the Teaching and Learning International Survey (TALIS) National Report in Turkey. The same report also revealed that teachers did not find large-scale in-service training programs effective in contributing to their practice as teachers. With this being said, other Turkish studies conducted in which a one-on-one approach was implemented to facilitate teachers' professional development should also be mentioned. Several studies in particular were found in the literature focusing on the necessity and contribution of one-on-one professional development studies (Isiklar-Purcek, 2015; Kahraman, 2012). However, all of these studies investigated how administrators and supervisors to teachers implemented coaching methods to discuss legal regulations and how these regulations functioned. Examining administrators' coaching skills, these studies aimed to determine teachers' perceptions of administrators and supervisors' leadership skills and qualities. The national literature contains other studies specifically designed for teacher training in special education and further professional development studies as well. Those conducted on teacher training mostly focus on feedback presentation processes (Akalin & Sucuoğlu, 2015; Erbas & Yucesoy, 2002). The cumulative results of these studies indicate that tangible and quick feedback is more effective. In addition, one study examining the effectiveness of a one-on-one professional development approach on teachers' abilities to eliminate problem behaviors in special education was found (Timuçin & Özyürek, 2017). Together with these studies, there are a number of other national studies conducted following an action research design within the field of special education (Gürür, 2012; Vuran, Ergenekon, & Unlu, 2014). Although scarce, there are national research studies focusing on the counseling process for either teacher candidates or teachers as well as on feedback processes within the field of special education. However, the literature review also revealed that almost no studies exist on the professional development of teachers working with hearing impaired children in special education classes. Moreover, not a single action research study was found examining coaching based professional development programs that focused on individual needs and that contained recommendations as to how the process should be handled.

Parallel with the emphasis found in the international literature, all teachers in Turkey, including those working in special education and with hearing impaired

students, need professional development. It may be stated that what is necessary for special education teachers' professional development can be handled by coaching, not only due to its systematic and planned nature but also because it is based on cooperation, individual needs, and real practice. Focusing on coaching and the professional development of teachers working with hearing impaired students, the current study is expected to produce significant outcomes as to how the individual professional skills of teachers working in this field can be improved. It is hoped that conducting such a study while the teacher is working will shed light onto the question of how theoretical information can be cast into practice. Moreover, a study designed as such is also expected to be a pioneer in instilling an outlook that embraces continuing professional development in Turkey. The results of such a study may serve as guidelines that stakeholders can use to enhance teachers' professional development. In addition to all other potential outcomes, it is anticipated that the conclusions of the present study reveal clues for the professional development of all teachers, not only teachers of hearing impaired students or special education teachers. As such, this study aims to examine the coaching based professional development process of a teacher-researcher for hearing impaired students. Accordingly, answers have been sought for the following questions:

1. How was the coaching-based professional development process commenced and planned?
2. How was the coaching-based professional development process implemented?
 - 2.1. How did the teacher- researcher conduct activities during the coaching-based professional development process?
 - 2.2. What did the coach do while observing the teacher-researcher during the coaching-based professional development process?
 - 2.3. What did the coach do after the observation phase of the coaching-based professional development process?
3. What kinds of problems were encountered and what kinds of solutions were found during the implementation of the coaching-based professional development process?

Method

This section contains information about the design of the research, the place where the study was conducted, the students who took part in the study, the participants, data collection techniques, data analysis, and how the study was conducted.

Design

The aim of the study was two-fold. Being an action research study, it first aimed to describe how coaching was handled and how it affected an individual teacher's professional development. The study further aimed to complete a comprehensive examination of the systematic cycles of the coaching process in terms of individual needs. Action research is a complete process of systematic cycles based on the research data obtained that aims to achieve change and improvement (Johnson, 2012). Action research is reported to provide teachers with the opportunity not only to become life-long learners learning from their own practice but also to search the dynamics in their classes, to critically think about their own actions and interactions with their students, and to verify the outcomes (Johnson, 2012; Mertler, 2014). These features of action research design are in line with the coaching approach, which underlines continuity in professional development, employs real teaching practice, offers teachers the opportunity to reflect, and directs teachers to question their own practice. All these can be taken as the rationale as to why the current study has adopted an action research design.

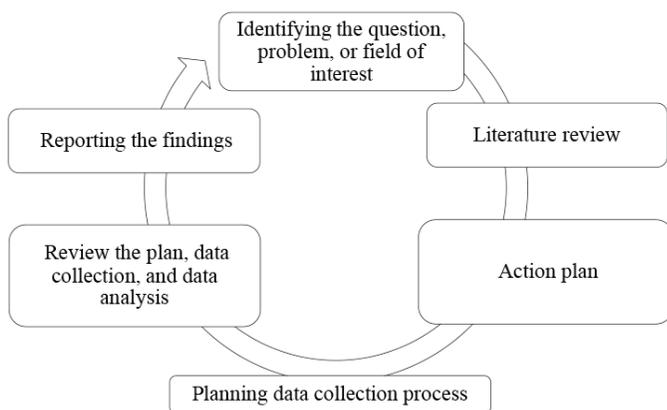


Figure 1. Action research cycle (Johnson, 2012).

The cyclic nature of action research and the steps involved are displayed in Figure 1. The first step in this cycle is to identify the question, problem, or field of interest (Mertler, 2014). Johnson (2012) calls this step of action research as the *beginning point*. The second step of the cycle is a literature review, which entails basing the subject in question, the problem, or the research field into a theoretical frame. The third and fourth steps of action research are related to developing an action plan and to planning data collection procedures (Mertler, 2014). In step five of action research, action plans are reviewed while they are in use, and relevant data are collected and analyzed simultaneously. In the sixth and final step, the findings obtained during the process are reported (Johnson, 2012). Questioning his own professional development,

the author of this article started the process cooperating with the coach, carried out the cyclic process via colleague cooperation, collected and analyzed research data simultaneously, and went on to implement further actions based on the findings, as described in detail within the findings section.

Participants

Participants of the study are a teacher-researcher working in Anadolu University's Education of Hearing Impaired Children Program and an experienced teacher trainer acting as the coach. The researcher graduated from Anadolu University's Education of Hearing Impaired Children Program in 1997 worked at a number of different universities, and has been employed at the same department of Anadolu University in 2007. The researcher is a faculty member who also fulfils classroom teacher responsibilities at the Research Center for the Education of the Hearing Impaired (RCEHI). The other responsibilities of the researcher were data collection, data analysis, and writing the research report. In this article, the author considers himself a teacher-researcher since he not only questions the responsibilities and roles of the very practice that he carries out but also aims to develop himself professionally. The relevant literature defines a teacher-researcher as the one who conducts teaching-learning programs, who bears the qualities of a school-development agent, and who manages one's professional development process (Johnson, 2012; Mertler, 2014). The coach directing the professional development process is a faculty member who has been working at Anadolu University since 1979. In addition, she is the head manager of the RCEHI. Moreover, the coach has been the coordinator of teaching practice courses in the same department since 1985, which is why the coach has been a participant of this study. Being an experienced teacher trainer, the coach often provides professional development guidance for those who need it. The primary role of a coach is to direct the professional development process.

Study's Location and Participating Students

Research was conducted at Anadolu University's Research Center for the Education of the Hearing Impaired (RCEHI). Convenience sampling was used to select the location of the current study (Yıldırım & Şimşek, 2011). Accordingly, the reason that the RCEHI was chosen is because not only is the researcher a natural member of the institution; he is a faculty member working as a classroom teacher in the same institution. These two factors make the institution easily accessible for the researcher. Education of hearing impaired individuals at the RCEHI starts after diagnosis at the audiology unit, instrumentation, and family training and then continues through pre-school and primary school until secondary education. Group classes focusing on school subjects are conducted daily in the RCEHI classes. In addition to these,

structured one-on-one conversation sessions are held throughout the day to support the development of language and communication skills of hearing impaired students. These planned one-on-one conversation sessions are intended to contribute to the turn-taking behaviors (i.e., speaking and listening) of hearing impaired children and to help develop their verbal language skills. One of the contributions regards students' language functions and use acquisitions (e.g., narrating and building causality links). In addition, conversations aim to offer students several opportunities to enhance their listening, understanding, and expressive skills through different sets of information questions (e.g., what, why, how, and where). In addition to these contributions, conversations are also intended to better hearing impaired students' literacy skills and overall academic success (Cole & Flexer, 2016; Mahon, 2009). One-on-one conversations are held with all students in all grades for 10 to 15 minutes on a daily basis in individual rooms at the RCEHI. During this study, the teacher-researcher and the coach conducted their meetings and research in the coach's office. Figure 2 depicts a sketch of the coach's office.

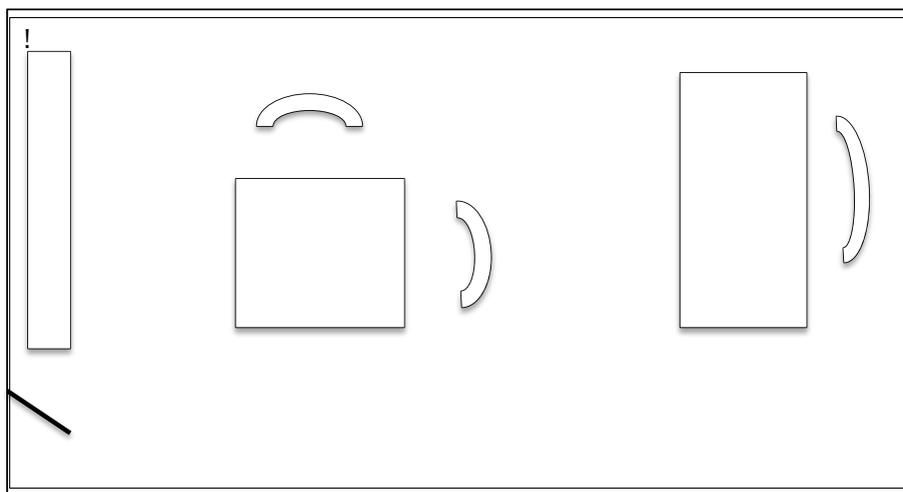


Figure 2. Coach's office where professional development activities were performed.

The coach's office depicted in Figure 2 is a 6m² room located on the first floor of the RCEHI. The room is furnished with a desk and a square table at which the conversations were held. For this study, one-on-one conversations were conducted with 8 first graders. At this point, it should be clarified that the current study's focal point is not the students. Information concerning the students is provided under a separate title so as to present a comprehensive picture of the research context. The reasons that 1st grade students in particular partook in the study are discussed in the findings section of this article (See page 10). Table 1 presents the demographic information about these students.

Table1
Demographic Information for 1st Graders with Whom the Conversations were Held

No	Student	Gender	DOB	Age of Diagnosis	Severity of Loss	Age of Hearing Aid Fitting	Age of Operation	Family Training Yes/No	Pre-school Education Yes/No
1	Ali	Male	22 Apr 2006	02 Nov 2006 (1 y 7 m.)	82 Db	21 Feb 2007 (1 y 10 m.)	N/A	Yes	Yes
2	Mehmet	Male	15 May 2006	08 Nov 2007 (2 y 6 m.)	CI	20 Feb 2008 (2 y 9 m.)	07 Jul 2011 (6 y 2 m.)	Yes	Yes
3	Can	Male	26 Aug 2005	28 May 2007 (2 y 9 m.)	73 Db	20 Feb 2007 (2 y 11 m.)	N/A	Yes	Yes
4	Ayşe	Female	26 Dec 2005	No record	CI	02 Feb 2006 (14 m.)	17 Jul 2008 (3 y 7 m.)	Yes	Yes
5	Naz	Female	09 Oct 2005	9 Apr 2006 (1 y 6 m.)	CI	23 Feb 2006 (1 y 6 m.)	14 Jun 2007 (2 y 8 m.)	Yes	No
6	Aslı	Female	12 May 2005	15 Aug 2008 (4 y 3 m.)	CI	24 Aug 2008 (4 y 3 m.)	04 Sept 2009 (5 y 4 m.)	Yes	No
7	Veli	Male	26 Dec 2005	No record	CI	17 Feb 2006 (14 m.)	25 Jul 2008 (3 y 7 m.)	Yes	Yes
8	Elif	Female	05 Sept 2006	23 Mar 2007 (1 y 6 m.)	CI	12 Jul 2007 (1 y 10 m.)	04 Dec 2008 (3 y 2 m.)	Yes	Yes

As can be seen in Table 1, four of the students interviewed by the teacher-researcher were female and the other four male. The mean age of the students was 8. Furthermore, the age that students were diagnosed ranged from 1 year 6 months to 4 years 3 months. As for augmented technologies, six of the students had cochlear implants (CI) and two used hearing aid. Similarly, the age that students had undergone a corrective operation for their condition varied from one student to another. Lastly, two of the students had received no family training or pre-school education.

Data Collection Techniques

Video and audio records, documents (i.e., the coach’s notebook, students’ portfolios, teacher-researcher’s plans, conversation materials), and reflective diaries were used as data collection tools. Although a total of 360 conversations (with a mean length of 15 minutes and 09 seconds; See Table 3) were held by the teacher-researcher over a period of 9 weeks during the spring term of 2012-2013, only 17 conversations were analyzed within the scope of the study. All conversations were audio and video taped in order to examine the data collection process comprehensively. The decision to analyze only 17 conversation sessions was made together with the coach in order to ease the management of the process (*Audio record*, July 02, 2013). The coach provided feedback for all of the 17 conversations after the teacher-researcher finished his implementation. The video recordings were used both to interpret the conversations and feedback sessions and to make decisions about further actions. The audio records, however, were used to examine how the one-on-one conversations held with the coach during the professional development process influenced the entire process. Moreover, the documents were collected and analyzed so as to provide evidence for

future actions, monitor and assess the process, and support the research data. In this sense, the notebook that the coach used during giving feedback for the conversation was copied and duplicated. The coach also recorded several pieces of advice on the conversation plans. The one-on-one conversation plans were also included in the analysis process to identify the warnings and to strengthen the research data. Similarly, the researcher gathered students' portfolios as well as the conversation plans and materials developed by the teacher-researcher to form solid support for all of the research findings. In addition to all of these, an 80-page reflective diary kept by the teacher-researcher was also used during the data analysis process. The reason why reflective diary was used as a way of data collection is the endeavor to handle the entire process holistically via recording the decisions made during the process and monitoring changes, personal & professional development of the researcher, and his self-evaluations. Table 2 depicts a matrix presenting the reasons that specific data collection techniques were employed.

Table 2
Research Questions of the Study and the Data Collection Techniques Matrix

Research Question	Video Records	Audio Records	Documents	Reflective Diary
1. How was the coaching-based professional development process commenced and planned?		✓	✓	✓
2. How was the coaching-based professional development process implemented?	✓	✓	✓	✓
3. What kinds of problems were encountered and what kinds of solutions were found during the implementation of the coaching-based professional development process?		✓		✓

Data Analysis

The data was collected and analyzed simultaneously during the coaching-based professional development process using a systematic analytic analysis (Johnson, 2012; Mertler, 2014) in which the research data are reviewed, reflected upon, checked by building links with research questions, and used to form action plans (Johnson, 2012). The relevant body of research in the literature explains that performing such an analysis not only forms a valid and reliable foundation for the cycle to be built upon during action research but also prepares a ground for decisions to be made and actions to be taken based on the findings (Mertler, 2014). In accordance with the systematic analytic analysis process, the research data were descriptively analyzed, monitored, and summarized as they were collected. All video and audio records of the one-on-one conversations as well as the planning and feedback meetings held with the coach were summarized and documented, which were compared with the previously collected data and analyzed in order to determine recurrences, patterns, and relations among events. Patterns were then brought together and findings were revealed as soon as the research has finished.

Validity–Reliability and Research Ethics

The relevant precautions concerning validity and reliability were taken during the research process (Johnson, 2012; Mertler, 2014). In this respect, different data collection techniques were employed to maintain research validity and reliability. Research data were collected longitudinally. Detailed descriptions were completed about the research process. All codes of ethics were followed during every step of the research. Due attention was paid to abide by the principle of objectivity while collecting data. Each and every one-on-one conversation and feedback session by the coach trainer was videotaped. Although interactions with students are video recorded soon after they are diagnosed, a video camera was placed in the classroom two months before the study was to be conducted in order to make it a natural element of the class so that the validity of the research data would be ensured. Although the families of students had signed a consent form when registering to the institution agreeing to any future research efforts, they were all verbally informed about the study and its content before it was to be commenced. Further permission was also granted by the institution's board of directors even though one of the participants of the current study, the coach, was both the director and a natural member of the institution herself. All of the research activities were planned and executed during real classes for which the researcher was responsible. Throughout the entire study, an equal amount of time was allocated to interview each student in the class. In this article, pseudonyms have been used for the coach and the participating students.

Findings

Three main themes were formulated about the coaching-based professional development process at the end of data analysis: (i) planning and implementation of the coaching process, (ii) problems, and (iii) relevant solutions. The findings of this paper are presented in line with the research questions and formulated themes.

Planning of the Coaching-Based Professional Development Process

The relevant analyses showed that the process was systematically planned. The planning stage was completed in two steps: (i) a baseline meeting and (ii) planning meetings.

Baseline meeting. The teacher-researcher was a teacher trainer responsible for teaching practices in the education of hearing impaired students during the period that the research was conducted. In his earlier studies, the researcher had frequently focused on how he could improve his classroom-teacher skills in order to better meet the needs of hearing impaired students (e.g., Gürgür, 2012). The needs that the teacher-researcher investigated and still works to improve are (*Reflective diaries*, February 04, 2013, p. 1): (i) Designing one-on-one conversation plans in accordance with the

needs of hearing impaired students at different grades, (ii) Including linguistic goals in the plans in order to improve the language skills of hearing impaired students, (iii) Holding one-on-one conversations as outlined in the plans, and (iv) Realizing the conversations in such a way that meets the language and communication needs of hearing impaired students.

Another reason that the teacher-researcher integrates developmental needs into one-on-one conversation plans is because it is his responsibility as a teacher trainer to do so at the faculty in which he works. Accordingly, it may be stated that the researcher intends to enhance the quality of his teaching by improving his classroom teacher skills (*Reflective diary*, February 04, 2013, p. 2-3). In his diary, the teacher-researcher expressed his aim to improve the quality of teaching practices as follows:

Improving my teaching skills means providing higher quality feedback for teacher trainees and conveying my experiences to them. Sometimes, I have doubts about the feedback I give to teacher trainees about some of the problems they face, especially about those concerning how to ascertain students' language development and how to hold one-on-one conversations (*Reflective diary*, February 04, 2013, p. 2-3).

The researcher shared his concerns about improving his teaching skills for hearing impaired students with the coach as well. The following is the note that the researcher wrote about this exchange of opinions with a more experienced colleague in his diary: "I conduct conversations, yet my experiences with different students is inadequate. My mentor advised me to work with students at different grades to increase my experience. This will be a good opportunity for me." (*Reflective diary*, February 04, 2013, p. 3).

After the researcher shared his ideas about his need for professional development with the coach, they decided to have a baseline meeting on the February 5, 2013. Following positive feedback from the coach, the following preliminary decisions were made during the same meeting (*Audio record*, February 05, 2013): (i) Participating in a coaching based professional development program that focuses on individual needs, (ii) Focusing on the skills necessary to plan and conduct one-on-one conversations during the professional development program, and (iii) Holding conversations with first grade students.

As a result of the baseline meeting, the professional development needs of the teacher-researcher were identified and a relevant coaching based professional development program was designed. Another meeting was scheduled to take place following the baseline meeting in order to specify the program's details.

Planning meeting for coaching based professional development. The teacher-researcher and the coach held another meeting in order to clarify the details of

the professional development program (*Reflective diary*, February 07, 2013, p. 4). During this meeting, a plan was developed based on the preliminary decisions. First of all, the reasons as to why the research should be conducted with first graders were discussed. At the end of the discussion, the following reasons were determined to be relevant (*Audio record*, February 07, 2013): (i) The teacher-researcher did not have experience working with hearing impaired first graders, and (ii) Hearing impaired first graders require tremendous language support because in terms of literary skills, they are still beginners.

Concerning the decisions made during the planning meeting, the teacher-researcher wrote the following in his reflective diary: “I worked with students of higher grade levels, but this is going to be my first time with the first graders. Working with students who are just starting to learn how to read and write is a really new experience for me.” (*Reflective diary*, February 07, 2013, p. 6). How to organize the weekly conversations was also decided during the planning meeting, namely that conversations were to be held with every student in the class on a daily basis in order to improve the teacher-researcher’s one-on-one conversation proficiency. Based on the data analysis, the following reasons may be cited as the rationale for this decision (*Audio record*, February 07, 2013): (i) To contribute to the researcher’s proficiency in working longitudinally with students of different levels of hearing loss, (ii) To help the researcher focus on the techniques employed during one-on-one conversations scheduled to identify the needs of hearing impaired students, and (iii) To increase the researcher’s teaching qualities and to aid him in designing his own independent practices.

The planning meeting resulted in other managerial decisions regarding the professional development program; namely (*Audio record*, February 07, 2013): (i) The planning and implementation of one-on-one conversations were to be done every Monday and Friday by the researcher, (ii) The observation of one-on-one conversations was to be done by the coach at 10:30 AM, and (iii) Immediate feedback for one-on-one conversations was to be provided by the coach. The decisions made during the planning meeting defined the weekly cycle of the coaching based professional development program are depicted below (see Figure 3).

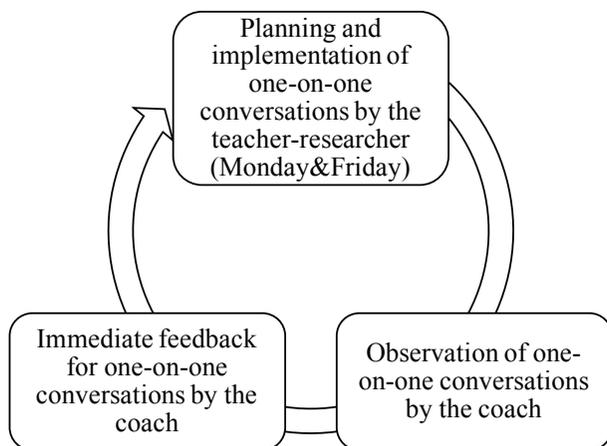


Figure 3. Weekly cycle of the coaching based professional development program.

As depicted in Figure 3, the details of the professional development were clarified during the planning meeting. According to the plan, the researcher would plan and hold one-on-one conversations two days a week (i.e., Monday and Friday), and the coach would observe the sessions and provide feedback. Coaching-based professional development process was commenced one week after planning (*February 11, 2013*).

Implementation of the Coaching Based Professional Development Program

Another finding obtained at the end of the analyses regarded how to manage the coaching program. Accordingly, the plan contained the following components (see Figure 3): (i) Planning and implementation of one-on-one conversations by the teacher-researcher, (ii) observation of the implementation by the coach, and (iii) immediate feedback for one-on-one conversations by the coach.

Planning and implementation of the one-on-one conversations by the teacher-researcher. The teacher-researcher planned for each and every one-on-one conversation to be held during the implementation stage of the professional development program. The researcher first identified the needs of the students with whom he would work. To do this, he first consulted the class-teacher and then examined the personal files of those hearing impaired students with whom he would converse. In these files, he studied the audiograms and reports that teachers had written about these students' language and communication skills and collected all the information that he could find. Furthermore, the teacher-researcher planned and implemented two group lessons in the classroom in order to determine these students' needs (*Turkish* - February 05, 2013 and *Social Studies* - February 08, 2013).

The researcher was only able to ascertain the general, as opposed to specific, needs of these students. The following is an entry in his diary concerning this fact:

I tried to collect information about the students I'm going to work with. I studied their files, talked with their teachers, and had lessons with them. Despite all I've done, I feel like I couldn't define their specific needs exactly. Yet, the process is ongoing, I can't postpone it (*Reflective diary*, February 09, 2013, p. 9).

Underlying the difficulty of determining students' needs in such a short period of time, the teacher-researcher wrote: "Holding one-on-one conversations compatible with students' needs is highly dependent on the time spent with these students." (*Reflective diary*, February 15, 2013, p. 6). Along with his efforts to determine students' needs before the program's implementation, the teacher-researcher decided to plan one-on-one conversations one day before they were to be held. All one-on-one conversations were planned in accordance with the outline used at the RCEHI that contains such titles as syntax, language use, and communicative goals (*Reflective diary*, February 15, 2013, p. 13).

In his reflective diary, the teacher-researcher mentioned how he improved in terms of designing conversation plans that were compatible with students' needs and how the coach helped him during this process with her feedback. The following is a relevant quotation from his diary:

I believe I've improved my plan developing skills because now I can better understand the needs of the students as I walk through the implementation process. The coach provided me with really valuable feedback about how to tailor plans for each student, especially for the first conversations (*Reflective diary*, March 06, 2013, p. 34).

Table 4 shows the written feedback given by the coach for the 1st and 4th conversations in regard to how to modify the plan according to students' individual needs. Moreover, the table indicates that the coach stopped providing feedback after the 4th conversation.

The implementation stage of the research lasted nine weeks between February 11, 2013 and April 05, 2013. In accordance with the decisions made during the planning meeting, a total of 17 one-on-one conversation sessions were held by the researcher that were observed and for which feedback was provided by the coach (see Table 3).

Table 3
Conversations Held During Implementation Stage

No	Student	Date	Duration of Record	Conversation Material
1	Ali	11 Feb 2013	15' 22"	<i>Father and Daughter with a New Bike</i> (Sequence Cards)
2	Can	13 Feb 2013	17' 34"	<i>A Family Having Breakfast</i> (Sequence Cards)
3	Veli	20 Feb 2013	15' 30"	<i>Father and Daughter building a Snowman</i> (Sequence Cards)
4	Elif	21 Feb 2013	16' 42"	<i>It is snowing</i> (Story book)
5	Naz	22 Feb 2013	12' 35"	<i>A family cooking in the kitchen</i> (One-picture card)
6	Ali	27 Feb 2013	11' 50"	<i>Ugur in the Bazaar</i> (Story book)
7	Ece	01 Mar 2013	12' 48"	<i>Cemile in the Shop with her Mom</i> (Story book)
8	Mert	05 Mar 2013	19' 46"	<i>Atakan starts school</i> (Story book)
9	Su	08 Mar 2013	16' 18"	<i>Children playing in the park</i> (One-picture card)
10	Can	14 Mar 2013	13' 16"	<i>Aydagul & the Naughty Lamb</i> (Story book)
11	Elif	15 Mar 2013	15' 02"	<i>Children Cooking Pasta</i> (Sequence Cards)
12	Ece	21 Mar 2013	21' 12"	<i>Ayşegül in the Village</i> (Story book)
13	Mert	22 Mar 2013	14' 22"	<i>Zelis Lost in the Game</i> (Story book)
14	Veli	26 Mar 2013	20' 55"	<i>The Sick Boy</i> (Sequence Cards)
15	Su	29 Mar 2013	23' 19"	<i>Ayşe</i> (Story)
16	Ali	02 Apr 2013	13' 45"	<i>The kid in the bathroom with parents</i> (One-picture card)
17	Can	05 Apr 2013	13' 42"	<i>The kid visiting aunt</i> (Sequence Cards)

As depicted in Table 3, a total of 17 conversations were held by the researcher during the implementation stage. The mean duration of the conversations was 15 minutes 09 seconds. For the conversations, the teacher-researcher used 17 sequence cards five times, a story book 8 times, and a single picture card 3 times. Twelve of the conversations were held in the coach's office and five took place in an individual study room. An analysis of the data revealed several themes; namely: (i) planning and conducting the conversations, (ii) what the coach did during conversations, and (iii) how the coach provided feedback.

Coach's observations of the one-on-one conversations. The coach observed the teacher-researcher while he was holding the planned one-on-one conversation sessions during coaching based professional development program. As was decided during the planning stage, the teacher-researcher informed the coach about the conversation sessions to be held that week (*Reflective diary*, April 14, 2013, p. 82). The coach was able to directly observe 10 of the 17 one-on-one conversations (conversation numbers 1, 2, 3, 4, 5, 6, 7, 10, 11, and 13, see Table 3) held in her office and provided feedback for the rest of sessions (conversation number 8, 9, 12, 14, 15, 16, and 17, Table 3) by watching the video records. As such, two kinds of monitoring were conducted during the coaching process (*Reflective diary*, March 20, 2013, p. 68); one of which was direct observation whereas the other was watching the video records. Although the coach provided feedback using two different methods, she followed a single pattern in providing feedback for the conversation sessions she directly observed. Accordingly, the following depicts what the coach did while observing the

conversation sessions (e.g., *Video tape records*, March 20, 2013/March 05, 2013): (i) The coach made notes in her notebook while the teacher-researcher was holding conversations, (ii) The coach examined the plan prepared by the teacher-researcher, taking notes during the implementation, and (iii) At the end of the conversation, the coach studied the material used by the teacher-researcher, writing the date on the back side and signing it.

Regardless of the observation method, either directly (e.g., *Conversation 7*, March 01, 2013) or via records (e.g., *Conversation 8*, March 05, 2013), the coach provided immediate feedback (see Table 4). The coach’s observation cycle both during and after the conversations is depicted in Figure 4.

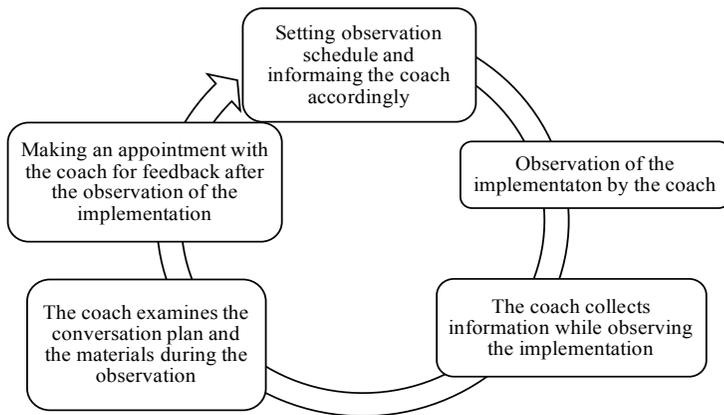


Figure 4. The coach’s observation cycle during the implementation.

As shown in the diagram, the coach followed a standard procedure while the teacher-researcher was implementing conversation sessions. The coach examined the plan and materials prepared by the teacher-researcher and made some notes.

Immediate feedback for one-on-one conversations by the coach. The experienced colleague, acting as the coach of professional development process, provided oral feedback to the researcher for each conversation session. Feedback sessions should also be considered as interaction between the coach and the teacher-researcher and as sub-dimensions of that interaction. Details concerning the feedback sessions are presented in Table 4.

Table 4
Details of Feedback Sessions Provided by the Coach

No	Date	Feedback timing	Duration of the Record	Competence fields the coach provided feedback
1	10 Feb 2013	Right after the conversation	10' 22"	<p><i>What the coach wrote in the plan:</i> He noted 's/he knows' onto the goal regarding the present continuous tense within syntax.</p> <p><i>Oral feedback by the coach:</i></p> <ol style="list-style-type: none"> 1. You should give clues concerning the material(s) you will talk about during the conversation 2. Give some time to the kid after asking a question. Hold on for a while. Do not trigger many questions. 3. You should do reviews more often
2	13 Feb 2013	Right after the conversation	13' 16"	<p><i>What the coach wrote in the plan:</i> Set the tense morpheme as the primary goal.</p> <p><i>Oral feedback by the coach:</i></p> <ol style="list-style-type: none"> 1. When you miss something, tell the kid to repeat. If you still do not understand, tell him to give clues from the picture. If it still does not work, ask for oral clues.
3	20 Feb 2013	Right after the conversation	8' 31"	<p><i>What the coach wrote in the plan:</i> You can target plural and present continuous morphemes.</p> <p><i>Oral feedback by the coach:</i></p> <ol style="list-style-type: none"> 1. Manage your time. The presentation of event on different cards may vary like at the beginning, in the middle, and at the end. Move to the main event more quickly. 2. You follow question & answer technique. Yet, either you or the kid may do the talking. Do not only get the answer.
4	21 Feb 2013	Right after the conversation	9' 42"	<p><i>What the coach wrote in the plan:</i> You can include more goals about tenses.</p> <p><i>Oral feedback by the coach:</i></p> <ol style="list-style-type: none"> 1. You can get to the main event in the story more quickly. Do not stall that long on a page. 2. You should know which one will take longer to answer before you state the questions.
5	23 Feb 2013	Right after the conversation	8' 50"	<ol style="list-style-type: none"> 1. Questions are really difficult for the kid. "Why does s/he use a cloth to hold that?" is a difficult question for the kid. 2. You should provide more explanation. 3. The kid is having problems understanding the question; you can include visual clues into the question.
6	27 Feb 2013	Right after the conversation	13' 19"	<ol style="list-style-type: none"> 1. You can't only stick to Q&A, you should integrate some explanations. 2. Link and relate the events.
7	01 Mar 2013	Right after the conversation	6' 36"	<ol style="list-style-type: none"> 1. Your questions were difficult. You should tailor them if you want the kid to make inferences. 2. I told you what to do when you do not understand something. Use the strategies. 3. Do accept the mistaken repetitions.
8	08 Mar 2013	After watching the video	13' 26"	<ol style="list-style-type: none"> 1. The sentences you wanted the kid to repeat are beyond the him. For instance, he cannot repeat "Atakan and his mother are going to the school." 2. You can divide or simplify difficult sentences like, "They are going to school".

Table 4
Details of Feedback Sessions Provided by the Coach

No	Date	Feedback timing	Duration of the Record	Competence fields the coach provided feedback
9	08 Mar 2013	After watching the video	10' 19"	<ol style="list-style-type: none"> 1. Repetition sentences are not appropriate for the kid's level. 2. Be careful about your questions. "How does the kite fly?" is a difficult question. You can give the answer when the question is difficult.
10	10 Mar 2013	Right after the conversation	8' 10"	<ol style="list-style-type: none"> 1. It shouldn't be based on only questions; you should integrate explanations. 2. You should run more repetition exercise. 3. Sentences should be easy to repeat.
11	15 Mar 2013	Right after the conversation	12' 09"	<ol style="list-style-type: none"> 1. Be careful with repetitions. It is difficult to repeat "He says 'be smart and eat'". You should stop when s/he fails. 2. "S/he cannot repeat "Ayse will stand up after putting the fork" because s/he doesn't know about adverbial phrases.
12	21 Mar 2013	After watching the video	9' 12"	<ol style="list-style-type: none"> 1. You can offer more explanation at the beginning. You said s/he is going to the village, but the kid may not be familiar with village. 2. Be careful about question types. You can ask "By what are they going?" instead of "How are they going?" 3. Insist two times for repetitions, if s/he fails, then leave it.
13	22 Mar 2013	Right after the conversation	6' 15"	<ol style="list-style-type: none"> 1. Instead of asking "What is Zelis doing?", you should give clues about the cover of the book, and then ask your question. 2. Give the kid sentences the s/he can repeat. "Zelis is sitting on the grass" is difficult, that's why s/he can't repeat.
14	30 Mar 2013	After watching the video	10' 25"	<ol style="list-style-type: none"> 1. You should say, "The ball falls into the garbage", "Whose ball is that?", "Your brother's". 2. Instead of "There germ in garbage", re-cast the mistake-free from "There are germs in the garbage".
15	30 Mar 2013	After watching the video	7' 00"	<ol style="list-style-type: none"> 1. Some of the repetitions sentences were way beyond the kid. 2. Use the pictures in the material when asking your question since the kid's intelligibility is very poor.
16	06 Apr 2013	After watching the video	8' 39"	<ol style="list-style-type: none"> 1. If the kid cannot answer a difficult question, you can give the answer. 2. Some of your questions were difficult. For instance, "Why is s/he looking in the mirror?"
17	06 Apr 2013	After watching the video	17' 15"	<ol style="list-style-type: none"> 1. Be careful when expanding kid's sentences. You made that sentence extra difficult. 2. Repetition sentences should be meaningful for the kid so that s/he can remember and repeat.

As seen in Table 4, the teacher-researcher was given feedback for 17 one-on-one conversation sessions during the implementation stage. The following findings were deduced from the analysis of the feedback provided by the coach:

- *Feedback timing:* The coach observed the conversation sessions held during the professional development program in one of two ways. Namely, the coach provided immediate feedback for 10 sessions that she directly observed (see Table 4). The

teacher-researcher wrote the following in his diary about receiving immediate feedback after conversations:

Receiving feedback from the coach after the implementation? Talking about what I did before I forget sometimes enhances the content of feedback session via my own reflections, but sometimes receiving feedback without properly thinking about what happened makes me feel hectic and pushed around (*Reflective diary*, February 27, 2013, p. 27).

The coach also provided feedback for those sessions that she did not observe directly but that she watched on the video record (see Table 4). There were seven such sessions. For those sessions that the coach was not able to observe directly, an appropriate time (e.g., weekends) was mutually set during which the videos were watched together with the researcher, and feedback was given for each record immediately after the video had finished. When necessary, the videos were watched again. The teacher-researcher expressed how he felt about feedback provided after watching the video as follows in his diary:

I often find myself asking whether it is better to receive feedback by watching the video recordings. I get myself ready for the feedback session by watching the videos and then, I watch the videos again while talking with the coach (*Reflective diary*, April 06, 2013, p.76).

- *Duration of feedback sessions*: For the most part, the feedback sessions lasted for 10 minutes (see Table 4). With respect to the duration of feedback sessions, the teacher-researcher noted the following in his diary: “I’m okay with the duration of feedback sessions. Long-winded meetings would be boring. I do my reflections about the implementation, and the coach clearly states her points.” (*Reflective diary*, March 08, 2013, p. 36).
- *Management of the feedback process*: An analysis of all the relevant data also yielded details as to how the coach managed the feedback process. Namely, the coach first gave the teacher-researcher a chance to reflection before starting to give feedback. The teacher-researcher noted his ideas about this self-reflection phase in his diary as follows: “I always check how I planned the conversation, how I interacted with the kid after each conversation session, and then I tell my opinions to the coach. All these are in line with my pace of individual development” (*Reflective diary*, March 15, 2013, p. 42).

After the teacher-researcher reflected after each conversation, the coach first mentioned the session’s positive points. Immediately after sharing his ideas about the positive qualities of the session, the coach started providing oral feedback based on the notes she had taken on the conversation plan and the on the notes that she had written in her notebook during the implementation. Regarding the coach’s feedback based on written notes, the teacher-researcher wrote the following in his diary: “The fact that the coach directly noted some of the sentences I said during the conversations

and the fact that the feedback was based on real events really contributed to my skills” (*Reflective diary*, March 25, 2013, p.51).

- *Competence areas provided with feedback:* A closer look at the content of the feedback provided by the coach for each conversation session reveals that certain competence areas were targeted. This analysis indicated that the coach underscored specific techniques concerning the teacher-researcher’s competence in holding conversations. For instance, the coach often told the teacher what to do when he did not understand what the student in the session said (Conversations 2 and 7, see Table 4). The competence areas on which the coach focused after each session mostly regarded the questions that were above students’ performance levels (e.g., Conversations 5, 9, and 13, see Table 4). Another point that the coach frequently underpinned during the feedback sessions was that the repetition sentences were also beyond students’ levels and that the teacher-researcher should not insist when students were unable to repeat. (e.g., Conversations 8, 9, and 11, see Table 4). Lastly, the findings show that the coach warned the teacher-researcher not to structure a session only with questions, but to ask for clarification and explanation from students (e.g., Conversations 6 and 10, see Table 4).

Another noteworthy point about Table 3 is that the number of competence areas the coach signified is rather small. In each feedback session, two or three competence areas were targeted by the coach. Regarding the content of the feedback provided by the coach, the researcher stated the following in his diary:

First, I thought that the feedback sessions were very short and limited in scope. However, it came to more important competence areas in time. The coach was focusing on competence areas precisely and concisely. Referring back to examples in his notes, the coach was helping me internalize the competence areas without causing any confusion. She repeated and fell back on more significant areas across several feedback sessions (*Reflective diary*, April 08, 2013, p.78).

Relevant Solutions for the Problems Encountered During the Coaching Based Professional Development Process

Some problems also came up during the coaching based professional development process. One of the issues was that the conversation sessions were not carried out on Mondays and Fridays as had been planned during the planning stage. The following is what the teacher-researcher noted in his diary about this problem:

I couldn’t do the class I had planned with the coach. We had to conduct the conversation sessions on different days although we had planned to do them on Mondays and Fridays. We couldn’t meet due to our responsibilities regarding the teaching practice course and the other professional tasks we had to complete (*Reflective diary*, March 29, 2013, p. 59).

Additionally, the teacher-researcher explained how their work load hindered his development, planning, and management of the process in his diary as follows:

I feel like I regressed this week a little bit. I couldn't carry out the conversation sessions on a daily basis due to my busy schedule. The coach said we could watch the rest of the conversations in the afternoon, but it won't happen. He said tomorrow, though! (*Reflective diary*, April 11, 2013, p. 82).

Another issue that came up during the research process due to the heavy workloads of the coach and the teacher-researcher was that the coach was unable to directly observe some of the conversations as had planned (e.g., *Conversations* 12 and 13, see Table 4). A quotation from the diary concerning this point is as follows: "The coach's schedule and mine seem not to match any more; there are times when she can't come and directly observe the sessions I planned. I guess this problem will continue to grow over time" (*Reflective diary*, March 05, 2013, p. 33).

The common source of the problems encountered during the research process was the busy schedules of both the teacher-researcher and the coach (*Reflective diary*, April 08, 2013, p. 78). This problem was not eliminated due to each one's natural professional responsibilities. Yet, the necessary precautions were taken to minimize the flaws stemming from the aforementioned problem. In this sense, the teacher-researcher and the coach decided to watch the video recordings of the missed sessions on weekends. The following is the audio record of this decision:

Should there be problems due to heavy work-loads, the teacher-researcher will file the videos of conversations, one-on-one conversation plans, and self-reflection notes, and will make an appointment with the coach. In such cases, they will watch the videos together, and the coach will provide relevant feedback (*Audio record*, March 01, 2013).

Concerning this issue, the teacher-researcher expressed his opinions in his diary as follows:

We had to work on weekends because the coach was not able to observe conversations due to her busy schedule. Still, I must accept that it has had an effect on me. I meet with the coach, watch videos for three hours, and she gives me feedback after each conversation (*Reflective diary*, March 02, 2013, p. 33).

Discussion and Conclusion

Regardless of the subject they intend to teach, teacher candidates need to learn and develop their competences while undergraduates and should continue to improve their competences while working as teachers (Obara, 2010; O'Gorman & Drudy, 2011). As this research has concluded, coaching is an effective approach that can be employed in the professional development of teachers (Hunzicker, 2011; Orland-Barak, 2010). The features that make coaching based professional development programs effective are that

they include a planned process, are systematic, and are based on cooperation and real practice (Barkley, 2005; Jovanova-Mitkovska, 2010). Compatible with the highlights about the features of this approach, the findings obtained at the end of the current study also indicated that the entire process was well-planned since the beginning. While planning the process, the teacher-researcher and the coach collaborated to determine the goals and relevant competence areas on which to focus during the professional development process. In line with these findings, planning and determining goals during coaching, and pursuing the process via concrete and systematic steps are said to be significant in terms of monitoring whether goals are attained or not (Jovanova-Mitkovska, 2010; Onchwari & Keengwe, 2008). On the other hand, the relevant literature also underlines that the teacher should not only be a willing participant but also be aware of his/her professional development needs for coaching based professional development to be successful (Lowenhaupt et al., 2013; Rhodes & Beneicke, 2002). Accordingly, since he started questioning his competence at the beginning of the process and asked for help from a coach for development, the teacher-researcher in this study can clearly be said to have an acceptable level of awareness.

In this study, implementation began after the planning the professional development process and was conducted two days a week in a cyclic nature, as planned. The relevant body of research states that handling the coaching approach in a cyclic system based on teachers' current competences, the progress they make in these areas, and the goals sought to be achieved helps improve the quality of development process (Li & Chan, 2015; Wong & Nicotera, 2003). The outcomes of the earlier cycles define the subsequent strategies to be used that are consistent with teachers' progress, serve as a foundation to move onto the next competence area, and help to create solutions for problems, if there are any (Hunzicker, 2011). The current research was also completed in a cyclic nature in that weekly implementations were grounded on the results of previous implementations. On the other hand, some problems were encountered during the process, such as not being able to hold conversations at the outlined place and time due to the teacher-researcher's heavy workloads and to the coach's professional and managerial responsibilities prohibiting her from being able to observe as many conversations as had been planned. Regarding these problems, the teacher-researcher and the coach maintained constant communication and either rescheduled the conversations to a later day or decided to watch the video records on a day when they were both available. The results of similar studies also point out that the natural roles and responsibilities of a teacher and a coach in such a process should be as flexible as their workloads permit (Irinaga-Bistolos et al., 2007). The rationale behind is that additional responsibilities introduced by professional development efforts may hinder the systematic nature of the process (Barkley, 2005; Billingsley, 2004). At this point, it should be noted that a number of important problems were experienced during the research process. Yet, due attention was paid to maintain

the systematic nature of professional development. This was done by immediately responding to the situation. The efforts made to maintain the systematic nature of the professional development program by taking immediate action when problems occurred provide even further evidence of the entire program's cyclic nature.

Another noteworthy feature of this cyclic professional development process is that it was based on real practice and implementation. During the process, the coach observed one-on-one conversations held by the teacher-researcher, providing immediate oral feedback. Studies conducted on the coaching approach have concluded that it is of tremendous importance that the process be based on real life practice so that the developmental needs of the teacher may be easily identified, so that the process may be managed at a balanced pace, and so that the desired development may be realized (Hunzicker, 2011; Gersten et al., 1995). Real practice is valued because it provides tangible examples to aid one in transferring and transforming knowledge into practice (Costa & Garmston, 2002). In addition, the relation between immediate oral feedback provided by the coach and the transformation of knowledge into practice by the teacher-researcher should also be considered. Indeed, the literature review indicates that immediate oral feedback provided by the coach helps teachers to not only notice their competence areas but also transform the knowledge they gained into practice (Wilkins-Canter, 2010).

When looking at the content of the feedback that the coach provided to the teacher-researcher about one-on-one conversations, the following remarks can be made about one-on-one conversations with hearing impaired students: (i) written and oral feedback should be given, (ii) descriptive and specific competence areas based on real evidence (e.g., giving enough time to the student, building relations between events) should be focused on, (iii) specific competence areas (e.g., asking questions, asking for repetition) should be revisited, and (iv) a limited number ($N \approx 3$) of competence areas should be targeted in each session (like 3 in each session) (See Table 4). All of these features are consistent with the properties of effective feedback as outlined in the literature and as mentioned in the introduction part of this article (Copland, 2010; Scheeler et al., 2004; Wilkins-Canter, 2010). On the other hand, a number of possible reasons may be cited as to why the coach handled competences concerning the one-on-one conversations in the way she did. One reason may be that the competences necessary for one-on-one conversations are numerous, intricate, and complicated. Another reason may be the individual needs and the developmental pace of the teacher-researcher. The rationale behind the reasons can be attributed to the coach's use of scaffolding (McKenzie, 2000; Vygotsky, 1978) to help the teacher-researcher internalize the competences in question and transform knowledge into practice. It may be concluded that the coach took into account the teacher-researcher's pace and individual needs for development while planning the entire process in a step-by-step

and repetitive manner, focusing on a limited number of competences in the hope to enhance teacher-researcher's one-on-one conversation skills.

The fact that the teacher-researcher and the coach cooperated throughout the entire study is another notable feature that should be addressed. It is frequently emphasized in the literature that since cooperation promotes continuity and efficiency, it is an indispensable component of the coaching process (Cantrell & Hughes, 2008; Veenman & Denessen, 2001). With respect to the effectiveness of cooperation, it has been underpinned that the quality of communication and interaction between the teacher-researcher and the coach is of fundamental significance (Lowenhaupt et al., 2013; Rhodes & Beneicke, 2002). A closer look at the interaction between the teacher-researcher and the coach during the current study reveals that every step of the process was built on a number of quality interactions; namely, mutual respect, joint goals, joint decisions, and the equal opportunity to express their opinions. All of these features may be considered as factors that promote effective communication between teachers and coaches during professional development programs (Gersten et al., 1995; Irinaga-Bistolas et al., 2007).

Additional tangible findings concerning effective communication can be observed in those sessions that the coach provided feedback regarding the implementation to the teacher-researcher. As such, facilitating opportunities for the teacher to express his opinions about the implementation and to reflect on it during feedback sessions should be recorded as major indicators of effective communication. In addition, the coach took the teacher-researcher's ideas into account throughout the entire process and listened to him whenever he wanted to share his ideas, even while giving feedback. Relevant studies on interactions during professional development programs indicate that coaches should be good listeners in order to support teachers' development (Cantrell & Hughes, 2008; Onchwari & Keengwe, 2008). Moreover, during the feedback sessions, the coach offered the teacher-researcher opportunities to reflect on his work, which is considered influential for analytic thinking skills. Moreover, reflecting on one's own work aides that person in internalizing knowledge, as explained by the zone of proximal development. All of these findings emphasize that teachers internalize their gains and enhance their analytic thinking skills by analyzing and reflecting on their own work during coaching based professional development programs (Barkley, 2005; Veenman & Denessen, 2001).

Another noteworthy feature of the interaction built by the coach during the professional development process is that it was not based on directions and instructions, but on propositions and offers. Parallel to this finding, the literature advises coaches to be guides showing teachers where they are and where they are heading instead of imposing their own thinking and belief systems onto teachers

during professional development programs (Obara, 2010; Onchwari & Keengwe, 2008). With respect to the interaction between the two parties in the current study, the last point concerns the shortness of feedback sessions. The literature review revealed that although feedback sessions of approximately 30 minutes are conducive to promoting effective interaction (Copland, 2010), the average length of feedback sessions in this study was 10 minutes. Although the sessions in the current study appear to be very short and therefore inefficient, the frequency of these sessions may compensate for their shortness. Nevertheless, this finding should be handled with caution since it is not clear how competence areas might be able to be studied in such short sessions and how knowledge about competence areas might be internalized and transformed into practice.

In conclusion, a coaching based professional development program was planned and implemented in the current study, leading to several noteworthy features being determined; namely, that the process is *well-planned*, *goal-oriented*, *systematic*, and *cyclic*. In addition, the process also takes *individual characteristics into account* and is both *supportive* and *flexible*. Additionally, the entire process is based on *cooperation*, *effective communication*, and the *coach's guidance*. The last two features in particular should be underlined in terms of their significance in presenting and internalizing information during professional development efforts. It is possible to state that these findings are consistent with the features defining *quality* as concluded by those studies pointing out that coaching is an effective approach for facilitating teachers' professional development. However, due attention should be given to the intricate relation among these features. At this point, one may wonder if the teacher-researcher succeeded in satisfying the needs that he had determined at the beginning of the process; namely, proficiency conducting one-on-one conversations and specifying criteria for building an appropriate study environment and selecting students. One question that would need to be answered is: "Have the intended goals of gaining experience and improving competencies been achieved?" Based on the teacher's reflections, it is reasonable to state that the teacher improved in certain areas, especially in terms of conducting one-on-one conversations. Signs of improvement are clearly visible in the teacher's planning and implementation of one-on-one conversations with hearing impaired students whose ages and grades were beyond the teacher-researcher's previous experience. Furthermore, the coach went the extra mile to bring the researcher's knowledge up to date and to help him transform his knowledge into practice. Yet, the results of this study should be interpreted and used without neglecting the fact that this study had to be completed in a limited amount of time. As such, it may be wise to note that this study was designed to examine the process and not to verify the scope of competences that the teacher-researcher would gain. Nevertheless, one can easily deduce that the teacher-researcher improved his reflection and analytic thinking skills, and this type of improvement can be taken as

a sign that the teacher-researcher will continue questioning and seeking solutions as he continues working in the field. This result indicates that the development process is likely to continue and that future actions are likely to be planned. Therefore, a natural suggestion to make would be to continue this research, as it focuses on the coaching approach while adopting a Continuing Professional Development (CPD) standpoint.

Based on the findings of this study, suggestions can be made for future research endeavors. The findings have shown that coaching based professional development programs have the potential to produce a wide range of outcomes. At this point, it should be noted that the report of this action-research may serve as a guide providing a roadmap as to how the process should be managed. One suggestion is that manuals be prepared to direct scholars in their efforts to conduct a coaching based professional development program. Furthermore, it may also be suggested that the coaching based approach be expanded and used alongside other large scale, individual approaches for professional development in all subject areas. In doing so, all parties should be informed that coaching is not to be employed for only a short time and should continue over an extended period of time to be effective. Furthermore, the background and experiences in classroom teaching, professional development efforts, and adult education endeavors that the coach in this particular study brought should not be neglected. Accordingly, the background portfolios of teacher trainers should be taken into account to determine whether they are able to fulfill the role of a coach. In this vein, coaches who themselves have participated in professional development may be better options for those wishing to provide higher quality professional development programs.

Both the results deduced from the findings of this study and the study's limitations can serve as a foundation for future research endeavors. Among the limitations include the fact that the study is of an action-research design and employs only qualitative data collection methods. The most important limitation is the need for an objective method to measure to what degree the teacher-researcher's competence areas improve. As such, one recommendation is that future research use quantitative data to determine the degree that the teacher improves. Moreover, future studies may employ different professional development approaches together with coaching in an experimental design. In such studies, one can decide whether the process should be implemented in real-life settings by determining the potential effect of a coaching-based professional development program on students' success levels. This study focused solely on an individual teacher's skills at holding one-on-one conversations. Therefore, further research should focus on other qualities necessary for teachers of hearing impaired students to have. Since this study was conducted at a research center, affiliated with a university, where hearing-impaired students are educated, another limitation concerns the place of research. By conducting studies focusing on

different subjects taught in school (e.g., mathematics, language) at different schools, this limit may be overcome.

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