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The Effect of Performance Feedback Provided to Student-Teachers Working with Multiple Disabilities

Pınar SAFAK* Gazi University, TURKEY
Hatice Cansu YILMAZ Gazi University, TURKEY
Pinar DEMIRYUREK Gazi University, TURKEY
Mustafa DOGUS Gazi University, TURKEY

Abstract: The aim of the study was to investigate the effect of performance feedback (PF) provided to student teachers working with students with multiple disabilities and visual impairment (MDVI) on their teaching skills. The study group of the research was composed of 11 student teachers attending to the final year of the Teaching Students with Visual Impairments Program at a university in Ankara, Turkey. A quasi-experimental design, was used in the study. These student teachers recorded their classes for pretest and posttest and these video-recorded classes were thereafter watched by the observer, who completed semi-structured observation forms for each student teacher. The results of the analysis suggested a statistically significant difference between the pretest and posttest scores of the student teachers involved in the study before and after the performance feedback. The findings of the study were discussed in the light of the relevant literature and practical recommendations were included.

Keywords: *Severe disability, multiple disability, student teacher, performance feedback*

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Introduction

The Association for Persons with Severe Handicaps (TASH), a civil rights organization, defines the 'individuals affected by severe disabilities' as individuals of all ages, who are in need of extensive and continuous assistance in more than one basic life activity, so as to keep up with the life quality of individuals, who haven't been or less affected by disabilities (Collins, 2007; Safak, 2013; Turnbull, Turnbull, Shank & Smith; 2004). Westling & Fox (2009) describe multiple disabilities as a condition under severe disability. Individuals affected by multiple disabilities are those who have been affected by more than one type of disability and who cannot benefit from programs intended for a single disability (Safak, 2013). Individuals with vision impairment and additional disabilities are also included in severe and multiple deficiencies classification. Many resources that provide a definition for multiple disabilities suggest that individuals cannot be placed in special education programs prepared for a single disability and such individuals would need specially trained personnel, adapted programs and/or instructional materials to achieve success (IDEA, 2011; Ozyurek, 1987). This indicates that teachers, who are to work with individuals with multiple and severe disabilities should be specially educated.

A good teaching program should not only aim to equip the student teachers with required skills and knowledge, but also ensure that student teachers are able to present such knowledge and skills the best (Dayi, 2011; Gleason & Hall 1991; O'Reilly, 1992; Ozyurek, 2008). While working in a real classroom environment, student teachers gain experience in the development of appropriate classes and materials, management of classroom behaviors, and teaching.

Such experiences allow them to apply the teaching skills acquired during university education to real classrooms efficiently and thoroughly (Darling Hammond, Hammerness, Grossman, Rust, & Shulman, 2005). However, the processes by which teaching programs enable the student teachers acquire the required experience are different from each other in many ways. In general, student teachers are provided with support and feedback in collaboration with classroom teachers and university advisors so as to ensure that they achieve success in their respective branches (Darling-Hammond et al., 2005; Ozyurek, 2008).

Feedback involves statements as regards the student's learning level compared to intended level, what has to be learned further, and what and how the student can make use of to make up incomplete learning (Joyce, Weil & Calhoun, 2000). It has been suggested that feedback would be more practical if the same has been provided

* **Corresponding author:**
Pinar SAFAK, Gazi University Special Education Department, Ankara, Turkey
E-mail: mepsafak@gmail.com

in the light of the goals and results previously conceived by the student, focused only on a few significant aspects of performance, and accompanied with specific information that could be used to improve a student teacher's comprehension and improve the future performance (Dayi, 2011; Toro-Zambrana, 1996). Van Houten (1980) introduces three attributes of feedback: nature of feedback, temporal dimensions of feedback, and by whom it is given (Akalin & Sucuoglu, 2015; Scheeler, Ruhl & McAfee, 2004). The first attribute of feedback, in other words the nature of feedback means the content of the feedback or how feedback is given and it is classified as corrective or non-corrective, general, positive, or private (Akalin, 2014; Akalin & Sucuoglu, 2015; Devrim-Dayi & Ozyurek, 2011; Tekin-Iftar & Kircali-Iftar, 2001; Scheeler et al., 2004). While corrective feedback requires providing tips in accordance with the essence of the error, non-corrective feedback does not regard the essence of the error. General feedback is the type of feedback, by which what's wrong or right as regards the desired skill is expressed without providing a description of the response. Positive feedback is a rewarding feedback as a result of a certain behavior.

Descriptive feedback is to provide information as regards specified behaviors (Akalin & Sucuoglu, 2015; Dayi, 2011). Feedback for positive responses should be reinforced and intended for approval, whereas feedback for wrong responses should be corrective and can simply be provided by the advisor telling the individual that the relevant behavior is wrong (Tekin-Iftar & Kircali-Iftar, 2001).

The second attribute of feedback is the timing and frequency of them. Feedbacks can be given face to face or remotely via the internet. Furthermore, feedback can also be given upon post-observation assessment of such materials as voice and video recordings made during observation. Besides, advisors may use a checklist during the observation or make recordings of an anecdote and they may give feedback upon these records (Akalin & Sucuoglu, 2015; Scheeler et al., 2004). Feedback can be given verbally by immediately interrupting the lecture of the student teacher or given in the form of delayed feedback based on records made during the observation within one or two days subsequent to the observation (Dayi, 2011; Scheeler et al., 2004; Solomon, Klein & Politylo, 2012). Immediate feedback prevents the errors of student teachers during practice and allows immediate reinforcement. Individuals that give feedback constitute the third attribute of feedback. These people include teachers in charge of the practice, advisors from university, or peers (Akalin & Sucuoglu, 2015; Dayi, 2011).

Performance feedback (PF) is defined as monitoring the focus behavior of concern and providing the individuals with feedback on this behavior (Noell et al., 2005). As a matter of fact, feedback is one of the methods by which teachers acquire teaching skills and apply what they have learned in their classrooms (Akalin, 2014). Recent studies focused on PF so as to enhance student teachers' teaching skills (Akalin & Sucuoglu, 2015; Codding, Livanis, Pace & Vaca, 2008; DiGennaro-Reed, Codding, Catania & Maguire, 2010; Fallon, Collier-Meek, Maggin, Sanetti & Johnson, 2015; Gilbertson, Witt, LaFleur Singletary & VanDerHeyden, 2007; McKenney, Waldron & Conroy, 2013; Solomon et al., 2012).

A review of literature provides that PF is utilized in special education programs as well as the general education. Ingham and Greer (1992) indicate that joint use of the observation process, the "Teacher Performance Rate and Accuracy" (TPRA), and feedback during student teachers' work with students with disabilities was effective in increasing the right response rates of the students and improving the acquisition and generalization of teaching skills in student teachers. Toro-Zambrana (1996) investigated the effectiveness of using a program manual as prompt in a teaching program at Purdue University intended for students with severe disabilities, providing the student teacher with written, verbal, and approval feedback during the practice, and conducting discussion of questions or problems regarding what has been done during the practice. As a result, they found that these were effective in student teachers' use of teaching methods, preparation of a teaching plan, and self-criticism concerning their teaching. DiGennaro-Reed et al. (2010) found in a study with multiple baseline design across subjects consisting teachers that individualized video modeling was effective and addition of verbal PF increased treatment integrity to 100% for all participants. Fallon, et al. (2015) reviewed the studies, which employed PF as a strategy to increase school-based practices, and investigated whether PF was an evidence-based practice. Their findings suggested that PF could be considered an evidence-based intervention based on the criteria as set by What Works Clearinghouse (WWC).

There is a recent increase in the number of relevant studies in Turkey (Akalin & Sucuoglu, 2015; Erbas & Yucesoy, 2002; Devrim-Dayi & Ozyurek, 2011; Gurgur, 2013; Gurgur, 2015; Timucin, 2008; Vuran, Ergenekon & Unlu, 2014). Erbas & Yucesoy (2002) compared effectiveness of delivering immediate and delayed feedback methods in acquisition of use of prompts and reinforcements by student teachers and concluded that immediate feedback was more effective compared to the delayed feedback. In a study by Dayi (2011), which compared the effectiveness of teaching based on delivering prompts and feedbacks to delivering only feedbacks in acquisition of teaching skills of student teachers who will work with mentally disabilities lecturing and preparing a teaching plan. It was found that there was a difference in favor of teaching based on delivering prompts and feedback. Gurgur (2013) emphasized in a qualitative study based on a self-assessment approach that support through collaboration, continuous monitoring, feedback-based

monitoring, flexibility, raising awareness through rich experiences, and the realization of projective and balanced learning were the prominent attributes of teacher education process. Akalin & Sucugolu (2014) briefed teachers having students with special needs in their classroom on classroom management, PF and graphical analysis and then obtained video recordings from the teachers for the purpose of assessment. The practice was continued through delivering daily PF based on the recordings. As a result of the study, it was concluded that PF had positive effects on class management skills.

The relevant literature includes studies that investigated the acquisition of teaching skills through PF in special education. Most of such studies focused on teachers or student teachers of students with a single disability. Although, there are international studies conducted with teachers of students with severe or multiple disabilities (Inham&Greer, 1992; Toro-Zambrana, 1996; DiGennaro, Martens & Kleinmann, 2007), no similar study has been conducted in Turkey.

The present study was conducted with student teachers of students with multiple disabilities and visual impairment (MDVI). The general aim of the study was to assess the effect of PF provided to the student teachers working with students with MDVI on their teaching skills. The study is considered important for its emphasis on the significance of students with MDVI and their education, as well as raising teachers to work with them.

Methodology

Participants

The study group of the research was comprised of all female 11 student teachers, voluntarily participated in the study and attending to the final year of a university in Ankara, Turkey. These student teachers attended and successfully achieved Mathematics, Social sciences, Turkish, and Science courses during the license program. In addition, they also successfully achieved branch courses such as Special education methods, Material development, Classroom management, Principles and methods of education and the Education of students with multiple and severe disabilities. Student teachers opted for engaging in practices themselves in the classroom of students with MDVI and attended these classes in both semesters. The students within the scope of the research whose ages range between 6- 14 have MDVI. In a classroom of 4 or 5 people, the verbal language abilities of at least one students are limited or do not develop. They can communicate with gestures and/or sign language. In the scope of the study the data is collected from 11 different classrooms that include 11 different student teachers.

Application Consultants

The field of all researchers of this study is special education. All of the PFs are given by the advisor of the study who is the primary researcher. The advisor of study has been working as an advisor for teaching in visually impaired for 25 years. Furthermore, she has been working as an advisor for teaching the students with MDVI for 7 years. The second researcher who watches all of the videos for the observer reliability has been working as an advisor for teaching the students with MDVI for 3 years.

Research Model

The design of the present study was based on a single group, a quasi-experimental design (Karasar, 2013). The premise of the model was that the difference between the pretest and posttest scores, in favor of the latter, would be associated with the independent variable (Karasar, 2013). Whether the experimented variable was effective could be investigated by testing the significance of the difference in the mean scores of the pretest and posttest. The dependent variable of the study was teaching skills and the independent variable was the PF provided to the student teachers.

Data Collection Tool

The study data was collected upon observations of video recordings made in natural environment. The semi-structured Teaching Skills Observation Form (TSOF) was developed to assess the observations.

Development of Teaching Skills Observation Form

Development and application of the semi-structured observation form followed the steps involved in the semi-structured observation forms. These forms are composed of two sections. While one section is similar to a systematic observation form, the other is unstructured. The data collected via such observation forms are compliant with the nature of special case studies (Gokdere, 2015).

The researchers first conducted a review on the relevant literature and examined the sample observation forms (Louisiana Components of Effective Teaching, 1992; Picard, 2004; Weber, 2004) during the development phase of the TSOF intended to investigate the effect of PF provided to student teachers with students with MDVI on their teaching skills. Having introduced the items of the observation form in the light of the sample forms, the researchers described each item in detail so as to ensure harmony between the observers.

Table 1. Experimental Design Employed in the Study

The Experiment Pretest	The Experiment Posttest
The student teacher gives the video records which are prepared without taking any feedback to the primary advisor of study. The advisor of study watches the videos of each teacher candidate and fills the TSOF. The advisor gives feedbacks to the student teacher over their own TSOF.	The videos recorded after the feedbacks taken from the first videos are watched by the primary advisor. The TSOF is prepared for each student teacher.

Expert opinion regarding the clarity of the descriptions provided in the form and the scope and face validity was obtained from two measurement and evaluation experts, and expert opinion concerning the appropriateness of item contents was obtained from two special education experts. The form was finalized upon the reviews in line with the experts' opinions.

Form 1: Teaching Skills Observation Form (TSOF)

Data Collection

In the present study, first the courses administered in the classroom by the student teachers were video-recorded by themselves for the pretest and these were their first teaching experiences. They were allowed to make video recordings only after they were provided with necessary explanations about appropriate video recording. The student teachers were not provided with feedback regarding their course preparations and teaching during the course. The advisor was not present in the classroom during these recordings.

Firstly, the recorded classes were watched and TSOF was filled for each student teacher by the advisor. Then, individual feedbacks were given for each student teacher by the advisor. After all feedbacks were given, the recording of the second classes were demanded for the posttest. As in the pretest stage, the second recordings were watched and TSOF was filled for each student teacher by the advisor for posttest (Table 1).

Giving Feedbacks of Performance

The feedbacks concerning the first classes of each student teacher are individual feedbacks. In this scope, the advisor first watched the recordings herself and filled in TSOF. Then, she gave feedbacks by analyzing the TSOF to each student teacher while watching their first class recordings together. The items over TSOF that were done correctly by the student teacher reinforced by emphasizing. Regarding the items that were not done at all or done incorrectly, oral feedback was given by explaining how to include them in teaching process. Then, the preparation and presentation of a second lecture was demanded in line with these feedbacks from student teachers.

Analyzing of Data

The data was checked for normal distribution prior to the analysis of the data collected during the experimental study. Shapiro-Wilk test was used to test the normal distribution of the data since the sample was smaller than 50 (Buyukozturk, 2012). When the significance levels (p) obtained for the Shapiro – Wilk test provided for the dependent variables examined that the p value of the distribution in the first group was lower than 0.05 and higher than 0.5 in the second group, suggesting that there was normal distribution in the first group and non-normal distribution in the second group. Due to the difference regarding the normal distribution, the Wilcoxon Signed-Rank Test, a non-parametric counterpart of the t-test, was decided to be used (Balci, 2007; Buyukozturk, 2012). SPSS 21.0 statistical software was used in the analysis of the data (Table 2)

Interobserver Reliability

Inter-observer agreement data were collected on 30% each of the first and second classes videos. Inter-observer reliability was calculated by the number of agreements dividing by the total number of agreements plus disagreements and multiplying by 100 (Cooper et. al., 1987; Erbas, 2012). As a result of the calculations using this formula, the value of inter-observer reliability of the researchers was found as 92.6% for the first classes videos. Then the advisor gave feedbacks and second videos were demanded from the each student teachers. The value of inter-observer reliability of the second classes was found as 89.2%.

Table 2. Normality Test

	Kolmogorov-Smirnov[a]			**Shapiro-Wilk**		
	Statistic	df	p	Statistic	Df	p
OBSERVATION1	.209	11	.193	.830	11	.023
OBSERVATION2	.139	11	.200*	.950	11	.649

Social Validation

In the scope of the social validity of the study, a subjective assessment was made by asking open-ended questions to the student teachers involved in the study by which they could state their views on the results of the study (Kurt, 2012). The student teachers were asked, "What do you think are the advantages and disadvantages of providing feedback based on video recordings subsequent to your classes rather than by immediate feedback of the advisor that is present in the classroom?" The student teachers emphasized the advantages as lessened thrill and thus acting comfortably during the teaching, being able to control the classroom by feeling independent, and working in a more comfortable collaboration with the co-trainees. They pointed out the disadvantages as technical problems with the cameras might impair the flow of the class and that despite they could establish appropriate communication with students in some classes, the advisor might fail to notice their skills since it was difficult to understand the classroom atmosphere via video-recordings.

Findings / Results

This study, which aimed to investigate the effect of PF on the development of teaching skills, based on the assessments of the video-recordings of the classes given by student teachers by using TSOF.

Wilcoxon signed-rank, which was used to test the aim stated above was provided in Table 3. The results of the analysis indicated that the median post- test ranks (median=82) were statistically significantly higher than the median pre-test ranks (median= 68.4), Z= -2.49, p<. 05 and the increase was large (r = -.53). When the mean rank and sum of the difference ranks were taken into account, the difference that was observed was in favor of the positive ranks, namely the posttest ranks. Therefore, based on the findings above, it was concluded that PF had a significant effect on improving the teaching skills of student teachers working with the students with MDVI.

Of the 41 items of the 7 headings involved in TSOF, the number of feedbacks marked as correct by the advisor showed difference for each student teacher before and after getting PF. Table 4 has items which present a meaningful increase in the posttest.

Table 4. The Items Showing a Meaningful Increase in the Posttest

Skill (Item)	Total Number of Items Pretest (1st Lesson) (Fulfilled by student teachers)	Total Number of Items Showing a Meaningful Increase in the Posttest(Fulfilled by student teachers)(2nd Lesson)
12	6	9
15	6	10
19	7	11
21	0	6
33	7	11
34	5	9

Item *12* in the table which is about the environment and material arrangement is the item saying that "*Arranges the desk of students in compliance with teaching*." The arrangement of students' desks is very important for their active participation in the lesson and class management (Akin & Kocak, 2007; Ersoy, 2005; Ozden, 2007; Stewart, Evans, 1997). In this context, while only 6 student teachers arranged classrooms in compliance with teaching before the feedbacks, in the second classes subsequent to the feedbacks this number increased to 9. For example, the student teacher 2 did not arrange the classroom and experienced difficulty in controlling the students during the first classes. However, in the second class, the same student teacher had the students sit in U-shape before starting the second class and thus ensured their active participation in the class by allowing intercommunication among students in the classroom activities.

Item *15* which is under the introduction to the teaching heading is the item saying that "*Clearly describes what the activity is.*" Clearly describing the activity is one of the basic introductory activities aiming to inform students about the subject and attract their attention to the class (Ozturk, 1995; Ozturk, 2001). While only 6 student teachers described the subject prior to their first class, this number increased to 10 after giving the necessary feedback.

Table 3. Wilcoxon Signed-Rank Test Results for the Pretest – Posttest Scores of Performance Feedback

Posttest-Pretest		n	Mean Rank	Sum of Ranks	z	p
	Negative Ranks	1	5.00	5.00	2.490*	0.13
	Positive Ranks	10	6.10	61.00		
	Equal	0				
	Total	11				

*Based on negative rank

Items *19* and *21* which are under the process of teaching heading is the item saying that "*Explaining the educational objectives*." While only 7 student teachers performed the Item 19, which says "presents in line with predetermined teaching method," before the feedback, all the student teachers lectured in compliance with the teaching method determined in the plan after getting feedback. Item *21* is the item saying that "*frequently checks other students in the classroom while engaging one-to-one teaching*." This item is necessary for the students not to be distracted and to establish class management (Gunduz & Can, 2013; Ersoy, 2005; Miller, 2004). While before the PF, neither student teacher checked other students while engaging a student one to one, after the PF, 6 student teachers ensured the active participation of other students during one-to-one engagement or instructing the assistant student teacher.

"*Waits for 5-8 s. after asking a question for students (s) to think about the answer*" *(33)* and "*provides symbol(s) and clues/choices for students (s) to give the right answer to the question*" *(34)* are the items under "Communicational Skills" heading of the TSOF. Cushman (2004) indicated that children with multiple disabilities can need extra time for information of process and response. Granting time for students give answers is important for students to think and thus increases the possibility to give the expected answer. Before the feedback, 7 student teachers met this requirement, whereas after the feedback all the student teachers granted time after asking a question to students. Providing choices for student(s) to achieve the right answer *(34)* is based on the principle of creating clues by symbol(s) to facilitate right answers by the students (Jolivette, Stichter, Sibilsky, Scott & Ridgley, 2002; Shevin & Klein, 2004; Safak, 2013). Only 5 student teachers provided choices before feedback, yet this number increased to 9 after PF.

Besides a significant increase in the number of the items in the form that was done correctly was observed after getting PF; there are also items which did not change at all and do not have significant change after getting PF. Table 5, shows total number of items that did not change at all and do not have a significant change.

Table 5. Total Number of Items That Did Not Change at All and Do Not Have a Significant Change after Giving Feedback

Skill (Item)	Total Number of Items Pretest(Fulfilled by student teachers)(1st lesson)	Total Number of items that did not change at all and do not have a significant change after giving (Fulfilled by student teachers) feedback (2nd lesson)
20	1	2
28	1	3
29	1	3
37	1	1
38	11	11
39	10	11
40	9	10
41	11	11

Making choices develops decision-making skills of students, prepares for independent life, and at the same time prevents likely behavioral problems (Eldeniz-Cetin, 2013; Safak, 2013; Safak & Uyar, 2015). Therefore, students should be allowed to make choices among the teacher-controlled choices in all activities designed to help them with achieving independence in daily life and during the teaching session (Eldeniz-Cetin, 2013; Shevin & Klein, 2004; Stafford, 2005; Safak, 2013; Safak, Uyar, 2015).Unlike the significant increase in other items, while 1 student teacher performed the Item *20*, which is "*Providing student(s) to make a choice among the materials*," before the feedback, only 2 student teachers performed the Item *20* after the feedback. The primary reason for not getting a significant increase was that the student teachers employed concept teaching or direct instruction methods in teaching life science and science courses and thus using previously prepared materials during the classes in line with the plan.

The items under the "Behavioral Management" heading of the TSOF, which says that *"terminates the activity by predicting a likely problem behavior or prevents the problem behavior by interpolating another activity*" *(28)* and "*applies to the previously determined behavior change method in case of problem behaviors*" *(29)* were intended to observe their skills of coping with problem behaviors. These items were used to assess how the student teachers approached students demonstrating problem behaviors and which methods they applied so as to decrease the occurrence of such behaviors. Due to the fact that course contents prepared by the teachers were compatible with the age and cognitive levels of students and the course materials used during the teaching were attractive for the students, problem

behaviors were observed in four classes, including the first and the second classes. Only one student teacher applied and succeeded in the extinction method by ignoring a problem behavior, whereas 3 more student teachers were observed to have coped with the problem behavior by ignoring problem behaviors, reminding rules to the students, and reinforcing appropriate behaviors.

The "*technological tools used during the class such as audio, PC, tape, video (for students with impaired vision) should be in such a position that they can be seen/heard by all the students*" *(37)* item is under the use of assistive technologies heading helps with the student teachers to achieve their course objectives intended for different senses. Therefore, student teachers serve multisensory teaching and help students with understand the topic of the class better (Cuhadar, 2008; Mulligan, 2003; Stanton-Chapman &Brown, 2015; Yildiz, 2010). Student teacher 3 and 6, used audio during teaching after the feedback. The reason of the fact that the other student teachers did not use assistive technology was that the feedback by the advisor did not include the use of technology sufficiently.

Other items in table 5 (*38, 39, 40, 41*) were about the voice tone, and they include speaking speed, tone, adjusting emphasis according to the responses of students and fluent speaking. It was seen that the student teachers were able to use such skills actively before and after the PF.

Discussion and Conclusion

It was seen in the present study that PF had a significant effect on improving the teaching skills of the student teachers working with students with MDVI. PF has been used in many studies on teachers' education and found to be effective (Akalin & Sucuoglu, 2015; Erbas & Yucesoy, 2002; Devrim-Dayi, 2009; Digennaro et al., 2007; Gurgur, 2015; Timucin, 2008; Vuran et al. , 2014).

As is known, PF can be immediately or delayed. It is well established that immediate feedback prevents the mistakes of the student teachers during their practice and allow instant reinforcement. Besides those emphasizing the effect of immediate feedback (Coding, Livanis, Pace & Vaca, 2008; Dayi, 2011; Erbas & Yucesoy, 2002; Scheeler et al., 2004), there are also studies, which demonstrated that delayed feedbacks are also effective (Akalin & Sucuoglu, 2015; Witt, Noell, LaFleur & Mortenson, 1997; Timucin, 2008). Scheeler et al. (2004) emphasized in their review study on the effect of PF that immediate feedback was effective on the acquisition of teaching skills. These studies included providing feedback by interrupting teaching of the teachers. However, they also stated that such an intervention would not be appropriate for each setting and teacher since the interruptions may decelerate teaching. Timucin (2008) used delayed feedback to investigate the effect of behavioral counseling on decreasing extracurricular behaviors of students and increasing rewarding behaviors of teachers. According to the data obtained from the satisfaction forms completed by the teachers at the end of the study by Akalin & Sucuoglu (2015) suggested that the timing of the delayed feedback provided on the day after the observation was appropriate. Delayed feedback was also used in this study and that PF was effective on teaching skills of student teachers. For social validity, the student teachers were requested to express their views on delayed feedback. Accordingly, the student teachers emphasized the advantages of delayed feedback as lessened thrill and accordingly acting comfortably during teaching, being able to control the classroom by feeling independent and working in a more comfortable collaboration with the co-trainees. However, repeating the same study based on immediate feedbacks and even conducting a study based on a comparison of the effects of immediate and delayed feedbacks would make significant contributions in the field.

It is also important who provides the feedback. Pierce and Miller (2004) compared the feedbacks by peers with the feedbacks by faculty advisors. Under both conditions the effective teaching behaviors of the teachers improved by the feedbacks. It was seen that peer feedbacks and faculty advisor feedbacks had similar effect. In this study, feedbacks were provided by the faculty advisor individually and it was found to be effective.

In the present study, the TSOF was not introduced to the student teachers before their first classes. In other words, the student teachers participated in the study based on their knowledge acquired at the courses at the university. Nevertheless, the teaching skills of the student teachers might have changed if they had known what was expected from them and what items were included in the TSOF. Therefore, further studies may investigate the effect on their teaching skills of briefing the student teachers before the application telling what is expected from them and what skills they should demonstrate.

The present study was solely conducted with the student teachers, and did not investigate whether the feedback provided to the student teachers had a positive effect on the students. For instance, Digennaro et al. (2007) observed the behaviors of the teacher and student dyads in a study on the effect of the feedback procedure. The study found that behavioral problems of the students decreased as the teaching skills improved. Another limitation of the present study is that the retention of the skills acquired by the teachers was not investigated. However, it is important that an acquired behavior is maintained after the application. Yet, this study is important for it is the first national study on student teachers working with students with MDVI and that it emphasized their training or teachers currently working with this kind of students.

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Appendix

Form 1: Teaching Skills Observation Form (TSOF)

STUDY: THE INFLUENCE OF FEEDBACK TO THE TEACHING SKILLS BASED ON PERFORMANCE GIVEN TO STUDENT TEACHER STUDYING WITH CHILDREN WHO HAVE A MULTIPLE DISABILITIES AND VISUAL IMPAIRMENT (MDVI)

PURPOSE: The purpose of this study is to specify the influence of feedback to the teaching skills based on performance given to student teacher studying with children who have a multiple disabilities and visual impairment (MDVI).

This check list will be filled after the videos, include the displays being recorded during student teacher' lecture presentations, being watched. The state, which has to be fulfilled with relevant step by student, is marked. If it is fulfilled, "DID" column is marked, if it is not, "DID NOT" column is marked. Some of states may not be observed because of not being suitable for student characteristics or the topic of lecture, being presented. In these situations, "NOT OBSERVED" column is marked. Skill steps' instructions are formed to decide if the teacher candidate has those skills, specified for each state, or not. The Observer should read the "Skill steps' instructions" carefully to make a best decision while filling the observation form.

Asst. Prof. Dr. Pinar SAFAK G. U. Special Education Department

Research Asst. Pinar DEMIRYUREK G. U. Special Education Department

Research Asst. H. Cansu YILMAZ G. U. Special Education Department

Research Asst. Mustafa DOGUS G. U. Special Education Department

OBSERVER:

OBSERVED:

Name and Surname of the Student:

Observation Topic:

Total Observation Time:

Observation Date:

INSTRUCTIONAL PLANNING	DID (1p.)	DID NOT (0p.)	NOT OBSERVED	INSTRUCTIONS
1. Student teacher writes his/her objectives down with (behavioral objective) clear, measurable and observable phrases.				
2. Student teacher writes his/her objectives down in respect to the performance levels of the students.				
3. Student teacher writes necessary materials for class/activity objectives.				
4. Student teacher selects the proper instructional method for realizing the instructional objectives.				
5. Student teacher writes down the instructional process in accordance with the instructional method.				
6. Student teacher pays regard to the fact that the activities chosen are interesting for students.				
7. Student teacher writes down the evaluative questions.				
ENVIRONMENT AND MATERIAL	**DID (1p.)**	**DID NOT (0p.)**	**NOT OBSERVED**	**INSTRUCTIONS**
8. The instructional materials can serve to achieve the objective.				
9. Student teacher removes the stimuli that are not related to the study.				
10. Student teacher places the materials to be used during the study so that they can be easily accessed.				
11. Student teacher pays regard to the fact that the materials chosen for the activity are (preferably) interesting for students.				
12.Arranges the desk of students in compliance with teaching				
13. Student teacher pays regard to whether the instructional environment/materials are healthy.				
14. Student teacher pays regard to whether the instructional environment/materials are safe.				

INTRODUCTION TO INSTRUCTION	DID (1p.)	DID NOT (0p.)	NOT OBSERVED	INSTRUCTIONS
15.Clearly describes what the activity is.				
16. Student teacher explains the rules to be followed during the study.				
17. Student teacher presents the instruments to be used with different tips (tactile, smelling, tasting, etc.) and has students examine them.				
INSTRUCTION	**DID (1p.)**	**DID NOT (0p.)**	**NOT OBSERVED**	**INSTRUCTIONS**
18. Student teacher carries out the instruction as specified by him/her before.				
19. Presents in line with predetermined teaching method.				
20.Providing student(s) to make a choice among the materials.				
21. Frequently checks other students in the classroom while engaging one-to-one teaching.				
22. Student teacher attracts students' attention through different ways (clapping, asking questions, etc.) when they are distracted.				
23. Student teacher carries out the instruction paying attention to student characteristics (partial vision-tactile-audial, etc.)				
24. Student teacher converse with student(s) about the activity at the end of the activity.				
25. Student teacher pays regard to the fact that students sit up straight (90^o-90^o-90^o) with their feet touching the floor during the class.				
26. Student teacher gives place to evaluation at the end of the instruction.				

BEHAVIORAL MANAGEMENT	**DID (1p.)**	**DID NOT (0p.)**	**NOT OBSERVED**	**INSTRUCTIONS**
27. Student teacher expresses his/her description of proper behaviors in a positive way.				
28. Terminates the activity by predicting a likely problem behavior or prevents the problem behavior by interpolating another activity.				
29. Applies to the previously determined behavior change method in case of problem behaviors.				
30. Student teacher describes the reason for the proper behavior exhibited by the student in order to present reinforcesin accordance with student characteristics.				
COMMUNICATIONAL SKILLS	**DID (1p.)**	**DID NOT (0p.)**	**NOT OBSERVED**	**INSTRUCTIONS**
31. Student teacher makes the presentation using the sign language for students when needed.				
32. Student teacher makes physical contact to attract or maintain students' attention while talking to them when necessary (touching their hand/shoulder slightly or holding their hand, etc.)				
33.Waits for 5-8 s. after asking a question for students (s) to think about the answer				
34. Provides symbol(s) and clues/choices for students (s) to give the right answer to the question.				
35. Student teacher reinforces students' proper responses in accordance with their characteristics.				
36. Student teacher allows students who cannot build verbal communication answer with gestures and mimics.				
USING OF ASSISTIVE TECHNOLOGY	**DID (1p.)**	**DID NOT (0p.)**	**NOT OBSERVED**	**INSTRUCTIONS**

37. Technological tools used during the class such as audio, PC, tape, video (for students with impaired vision) should be in such a position that they can be seen/heard by all the students.				
TONE OF VOICE	**DID (1p.)**	**DID NOT (0p.)**	**NOT OBSERVED**	**INSTRUCTIONS**
38. Student teacher uses a tone of voice that can be easily heard.				
39. The pace of speaking is not too slow or fast.				
40. Student teacher emphasizes a given point by changing his/her tone of voice.				
41. The interjections (uh, ah, well, etc.) used during the speech are not too much to intervene the instruction.				