



# The effect of feedback on preservice teachers' motivation and reflective thinking<sup>1</sup>

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**Abstract.** This study aims to investigate the effect of a feedback model designed for preservice teachers on their motivation and reflective thinking. The study was designed as a single-factor within-groups design where the independent variable is the feedback model and the dependent variables are preservice teachers' motivation and reflective thinking. The model was applied for six weeks in the Instructional Technologies and Material Development course at Gazi University during the spring term of the 2015-2016 academic year. The data was collected using the motivation scale, the reflective thinking tendencies scale and a semi-structured evaluation form of the feedback model designed by the researcher. The Shapiro-Wilk-W test, t-test, and eta-squared statistical test were used to analyze the quantitative data, and content analysis was used to analyze the qualitative data. The quantitative results indicated that the preservice teachers' scores on the motivation scale significantly increased after the implementation of the model, while the qualitative results showed that the model contributed to their personal development.

**Keywords:** Feedback model, peer feedback, motivation, reflective thinking, teacher education

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## INTRODUCTION

Feedback is an extremely important element for the realization of learning in the teaching process. Feedback in interactions in the learning-teaching process plays a major role for both the teacher and the learner (Crisp 2007; Le & Vásquez, 2011, Orsmond, Merry, & Reiling 2005). Many contributions of feedback have been noted in the literature. One of the key functions of feedback is to provide the teacher with information to monitor, evaluate, and track learners' achievement and performance in the learning process (Price, Handley, Millar, & O'Donovan, 2010, pp. 19-30). Feedback also helps learners realize their strengths and weaknesses in their performance and gain experience on how to act in similar situations (Nicol & Macfarlane-Dick, 2006; Horsham, 2007, p. 27). Feedback is of key importance for all levels of education, especially for the professional learning and development of preservice teachers during the teacher training process (Ellis & Loughland, 2017). For example, preservice teachers tend to use the feedback that they receive from university lecturers in their future professional lives (Aybek, Şimşek, & Temeltaş, 2010). The ability of preservice teachers to give effective feedback makes a greater contribution to the improvement of students' achievement in the learning and teaching process. Feedback must be given in a timely and appropriate manner to inform students about their performance and to ensure their learning progress (Hattie & Timperley 2007).

Feedback is referred to as comment, response or enlightening echo in the national literature (Özçelik, 1992). Feedback is defined as a stimulus used to reinforce and motivate students' answers or correct mistakes in their answers (Kulhavy & Wager, 1993, p.5). Likewise, Çalışkan (1999) described feedback as visual and auditory stimuli used to reinforce, motivate, and correct students' responses instantly or after a certain period of time in the learning environment. Peker

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(1992) defined feedback as a communicative process that provides information about the accuracy or inaccuracy of human behaviour and shows individuals how to correct their mistakes and improve their performance. Various classifications have been proposed for feedback which is frequently discussed and studied within the field of education. Several researchers have put forward different typologies and descriptions of feedback. Some types of feedback are informative feedback, motivational feedback, positive and negative feedback, instructional feedback, corrective feedback, formative, and verbal and written feedback (Brookhart, 2008; Falchikov, 1995; Chi, Siler, Jeong, Yamauchi, & Hausmann, 2001; Johnson & Johnson, 1993). The proper and effective use of feedback is important for improving the quality of teaching. Schelfhout, Dochy, and Janssens (2004) employed a combination of self, peer and teacher assessment as a feedback strategy and reported that if students were offered enough time and a good balance between these types of feedback, they had easier learning and a lot of learning opportunities.

Effective feedback has numerous functions (Ertmer, Richardson, Belland, Camin, Connolly, Coulthart, Lei & Mong, 2007, Evans, 2013; Juwah et al., 2004; Nicol & Macfarlane-Dick, 2006; Pokorny & Pickford, 2010; Thurlings, Vermeulen, Bastiaens, & Stijne, 2013). These functions include making students aware of their abilities (Kurtoglu-Hooton, 2015; Ormshaw, 2007), contributing to students' self-assessment, providing students with information about their learning, and promoting students' motivation (Juwah et al., 2004; Ertmer et al., 2007). If students are willing to receive feedback and have a questioning nature, it further enhances the effectiveness of feedback. From this perspective, reflective thinking helps students ask questions, research, collect and analyse data, and learn in-depth (Bard, 2014).

### **Relationship between Feedback, Motivation and Reflective Thinking**

Motivation is one of the key factors affecting students' achievement. Motivation is a dynamic state which has its origins in students' perceptions of themselves and their environment and incites students to engage in the educational activity presented to them in pursuit of finishing the goal (Viau, 2015, p. 57). Motivation is also described as the energy that drives students to learn in school, promoting students' performance and achievement (Erden & Akman, 2005, p. 243; Martin, 2001, p.3; Önen & Tüzün, 2005, p.19).

With respect to motivation, teachers should pay attention to make students aware of their lack of knowledge, ideas and behaviour and guide them to see the goals that correct such deficiencies. Teachers who fulfil this task are actually motivating their students (Akbaba, 2012, p. 9; Toppes, 2006, p. 256). Feedback can be used as a means to this end. Research has shown that students' willingness to learn increases when appropriate feedback is provided (Huitt, 2011; Viau, 2015).

Reflective thinking is defined as a process of deep thinking by which people analyse and gain awareness of their behaviour, experiences, and what they hear and observe in their environment to improve their current and future actions (Dalçığ, 2011, p. 11). With reflective thinking, students focus on their own learning goals and become aware of their performance (Duijnhouwer, Prins, & Stokking 2012). With feedback, students question and regulate their own learning and establish connections between their current and future learning (Ünver, 2007; Lee, 2008). Therefore, reflective thinking provides students with the opportunity to learn cognitively and affectively in the feedback process.

Reflective thinking is a major factor to that contributes to effective teaching for both new and experienced teachers because it entails an ability to analyse teaching, give and receive constructive feedback, and assess pros and cons of several teaching approaches (Bolotin, 2018). Ünver (2007, p.138) listed the characteristics of reflective-thinking teachers as follows: purposeful and constant thinking on teaching, questioning the teaching process, openness to change, looking at events from different perspectives, and openness to possible reactions. According to Çubukçu (2011, p. 307), teachers can use diary-keeping, concept maps, mind maps, asking questions, self-questioning, self-assessment, negotiated learning, learning essays, and reflective discussions to promote reflective thinking.

The effective use of feedback in teacher training institutions has an important role in quality work in education. If instructors are aware of the importance of using feedback in teaching and acquire new knowledge and skills to use feedback types effectively, it makes teaching more effective. In this connection, the knowledge and skills that preservice teachers acquire in teacher training programmes contribute to the production of more effective learning-teaching processes when they start their professional career. In addition, instructors' and preservice teachers' knowledge and expectations of feedback might influence whether they use feedback and the extent to which they use feedback. Therefore, it is hoped that this study will make an important contribution to the literature by discovering instructors' and preservice teachers' perceptions of feedback used in the teaching process in teacher training institutions, identifying the most commonly used and preferred types of feedback, exploring views and recommendations as to effective feedback, and improving the quality of education using a feedback model developed by examining all these variables.

### Research Purpose

The aim of this study was to investigate the effect of a feedback model designed for teacher training on preservice teachers' motivation and reflective thinking tendency. To this end, answers were sought to the following questions:

- As a result of the education given to the preservice teachers based on the feedback model,
  - Is there any significant difference between the pretest and posttest scores on the Motivated Strategies for Learning Questionnaire?
  - Is there any significant difference between the pretest and posttest scores on the Reflective Thinking Tendency Scale?
  - What are preservice teachers' views on the effectiveness of the model?

### METHODS

Qualitative and quantitative research approaches were used in this study, which sought to explore the effect of a feedback model used on preservice teachers on their motivation and reflective thinking tendency. In the first phase of the study, preservice teachers' views on feedback used in courses were investigated using a case study approach. The feedback model was designed with the findings obtained. This study especially focused on the experimental design-based phase. In this phase, a single-factor within-group experimental design was used.

The reason for using a single-factor within-group experimental design is that only one independent variable was examined in the study and the measures were administered to a single group as a pretest and posttest. The independent variable of the study was the feedback model, while the dependent variables were preservice teachers' motivations and reflective thinking tendency. Table 1 presents details on the experimental procedure of the research.

**Table 1.** *Experimental procedure of the research*

Groups	Pretest	Experimental Procedure	Posttest
Experimental Group	Motivated Strategies for Learning Questionnaire (MSLQ) Reflective Thinking Tendency Scale (RTTS)	Feedback Model	Motivated Strategies for Learning Questionnaire (MSLQ) Reflective Thinking Tendency Scale (RTTS)

### Sampling

In the experimental phase of the study, the sample was selected using purposive sampling. The sample consisted of preservice teachers who were attending the "Instructional Technologies and Material Design" Course in the Faculty of Education of Gazi University in the spring semester of the 2015-2016 academic year. Table 2 shows the number of preservice teachers involved in the pretest and posttest.

**Table 2.** Number of preservice teachers involved in the pretest and posttest

Tests	Number of Preservice Teachers
MSLQ Pretest	20
RTTS Pretest	20
MSLQ Posttest	13
RTTS Posttest	13

A reason for the lower participation rate in the posttest is that four preservice teachers could not remember the code given to them in the pretest procedure. Another reason is that the posttest was administered only to those attending the course.

### Data Collection Instruments

The Motivated Strategies for Learning Questionnaire (MSLQ) developed by Pintrich, Smith, Garcia, and McKeachie (1991) and adapted to Turkish by Büyüköztürk, Akgün, Özkahveci, and Demirel (2004) was used to identify preservice teachers' motivation for learning. The Reflective Thinking Tendency Scale (RTTS) developed by Semerci (2007) was used to explore preservice teachers' reflective thinking tendency. Finally, a semi-structured feedback model evaluation form developed by the researchers was used.

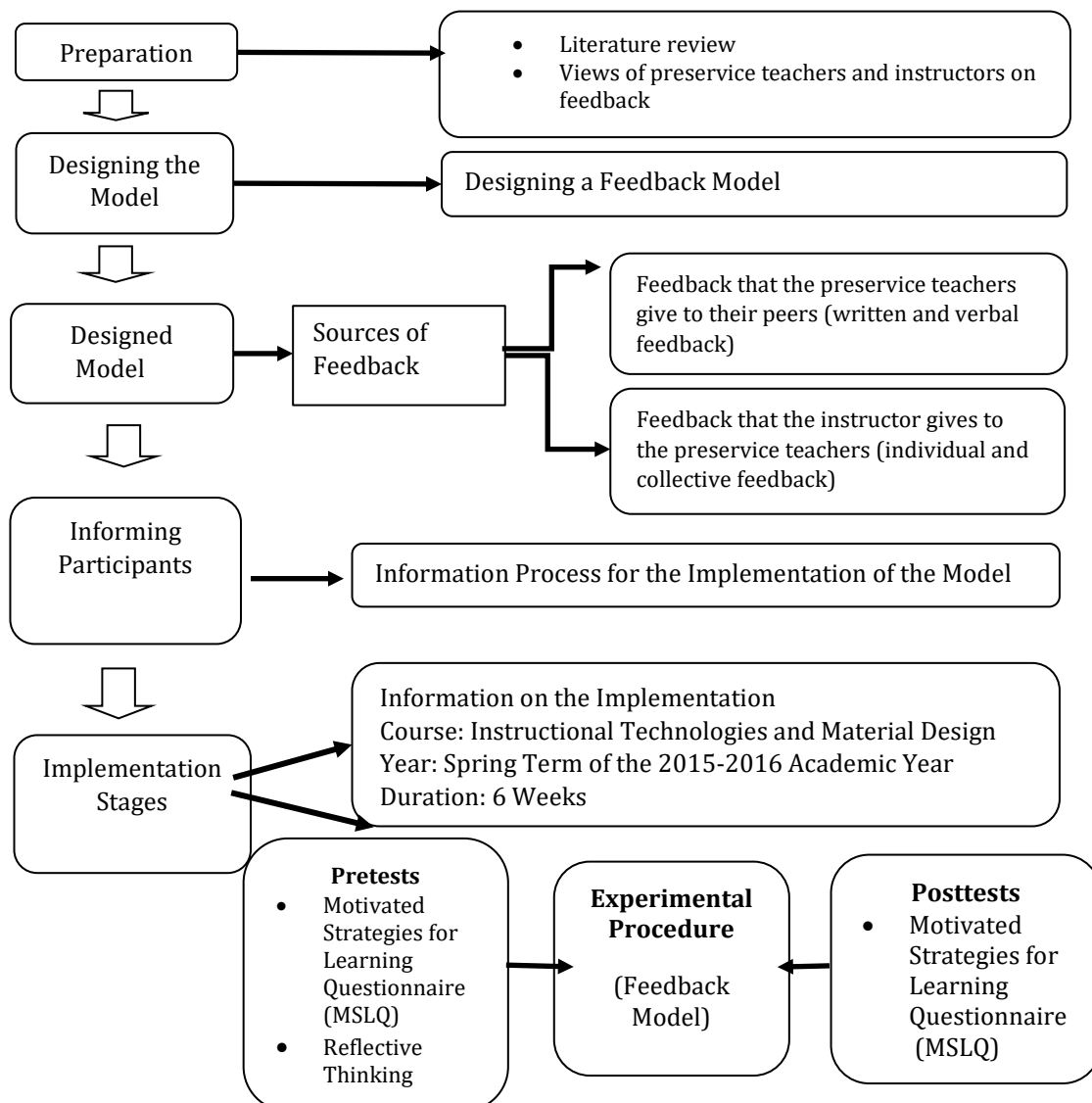
1- *Motivated Strategies for Learning Questionnaire (MSLQ)*: The questionnaire adapted by Büyüköztürk et al. (2004) consists of two subscales: motivation and learning strategies. Because this study set out to measure preservice teachers' motivations, it used only the motivation subscale items. The motivation subscale consists of the following components: intrinsic goal orientation, extrinsic goal orientation, task value, control beliefs, self-efficacy for learning and performance, and test anxiety. The Cronbach's alpha coefficients of the factors of the motivation subscale range from 0.52 to 0.86. The corrected item-total correlation values of the motivation subscale items range from 0.20 to 0.67. The results of the t-test on the upper 27% and lower 27% of the total group showed a significant difference for all items and the subscale total scores. The motivation subscale consists of 31 items. The MSLQ is a 7-point Likert type scale where the items are rated from "1 = not at all true of me" to "7 = very true of me" (e.g. Item 15: I think that what I am learning in this class is useful for me to know and Item 17: I think that what we are learning in this class is interesting).

2- *The Reflective Thinking Tendency Scale (RTTS)*: According to the results of the factor analysis conducted by Semerci (2007), the Kaiser-Meyer-Olkin (KMO) Test was 0.909 and Bartlett's test of sphericity value was 6811.461 ( $p < .05$ ). The seven factors of the scale include continuous and intentional thinking, open-mindedness, questioning and effective teaching, the responsibility of teaching and scientificity, inquisitive, farsightedness and sincerity, and professional viewpoint. Cronbach's alpha of the total scale was found to be 0.908. Cronbach's alpha coefficients of the subscales were found to range from 0.36 to 0.79. The RTTS is a 5-point Likert type scale consisting of 35 items, 15 of which are positive and 20 of which are negative (e.g. Item 5: I do not assess the effectiveness of my own teaching and Item 10: I cannot look at events in the teaching-learning process from a multifaceted viewpoint).

3- *Feedback Model Evaluation Form*: Expert opinions, direct quotations, and respondent validation were used to ensure the validity and reliability of the interview form designed for the third subproblem. A subject matter expert and the instructor in charge of the related course were asked for their opinion on the suitability of the items in the form. The form originally consisted of two questions; however, it was revised based on expert opinions and reduced to one question divided into three subsections. The final interview form was used to explore student views on the effectiveness of the types of feedback received from the instructor and peers. The form designed to discover preservice teachers' views on the types of feedback that they received included the question "Do you think the feedback you received from your peers and instructor was instrumental in the material design process? What are your positive and negative views on these types of feedback?"

## Data Collection

Figure 1 presents the details of the feedback model designed and implemented in this study.



**FIGURE 1.** *The process of designing and implementing the feedback model*

As can be seen in the figure above, preservice teachers' and instructors' views on feedback were explored through a case study which was carried out as the first phase before the experimental intervention in the preparation process. Table 3 shows the data obtained in this process.

A feedback model for the teaching process in teacher training was designed using the analysis results of instructors' and preservice teachers' responses and in line with the relevant literature. Three experts in Educational Sciences (Department of Psychological Services in Education, Department of Measurement and Evaluation, and Department of Curricula and Instruction) were asked for opinions on the draft model. In line with expert opinions, peer feedback, which is a type of feedback, was inserted to the model, thereby allowing students to be more actively involved in the process. The experts also expressed opinions that the model is easier to implement especially in practical courses. Considering all expert recommendations and opinions, the feedback model was given its final shape. In the model, the instructor and peers were

designated as the sources of feedback. It was planned in the feedback model that the instructor would give individual and collective feedback during the teaching process and individual feedback would be given at the beginning and end of material designs and to those who need throughout the process. Additionally, each preservice teacher would first receive written feedback from their peers at the end of their material presentation and then benefit from verbal feedback from their peers.

**Table 3.** Views of preservice teachers and instructors on feedback

<b>Subquestions</b>	<b>Preservice Teachers</b>	<b>Instructors</b>
What is the importance of feedback in the learning process?	Noticing deficiencies	Noticing deficiencies
What are the opinions as to the features of feedback?	Objectivity of feedback	Feedback should be clear and understandable
How should effective feedback be in the learning process?	Individual, constructive, both positive and negative, and objective	Should be extended over time, worded in a constructive language, tailored to each student, and appropriate to each students' level
What are the most common types of feedback used in classes?	Verbal, written, collective, and judgmental	Written, verbal, formative, and positive feedback
What are the types of useful feedback?	Individual, written, verbal, and peer feedback	Individual, verbal, positive, written, negative, and peer feedback
What are the strengths of feedback?	Helps overcome deficiencies and contributes to learning	Increases student motivation, contributes to learning, and corrects deficiencies
What are the weaknesses of feedback?	Given improperly and negative, judgmental, and grade/score-based feedback	Lack of time, mode of giving feedback, and preservice teachers' attitudes
What are the challenges faced in the feedback process?	Time and overcrowded classrooms	Shortage of time, difficulty in getting to know students, overcrowded classrooms, and heavy workloads
What are the recommendations for the feedback process?	Should be constructive, individual, timely, positive, and relevant to the needs	Should be individual and positive and given in the process

The designed model was used for the preservice teachers in the “Instructional Technologies and Material Design” course at Gazi University for six weeks in the spring term of the 2015-2016 academic year. The instructor who was teaching the course was informed on the purpose of the research and the designed feedback model and given a written tutorial. The researchers participated in the implementation process during the six weeks and administered peer feedback evaluation forms. During the implementation process, the instructor asked each preservice teacher to prepare a course plan for the teaching of a subject that they chose, to design a teaching material for this course plan, and to introduce the designed material in the classroom. The instructor gave individual or collective feedback to the preservice teachers during the preparation of the course plan and material. After the presentation of each preservice teachers, peers were asked to evaluate the course plan, the material introduced and the presentation. Peers made their assessments first in the form of written feedback and then verbal feedback using the forms given to them. Before the preservice teachers filled in the peer feedback form, they were reminded by the instructor that their remarks and feedback would not be used in the evaluation and measurement of the course so that possible biased feedback could be avoided. The researchers arranged the results of peer evaluations on the performance of each presenter in the form of a

“Peer Feedback Evaluation Result Report” for each week and shared the results with the preservice teachers. This feedback process in the model was aimed at making preservice teachers aware of their strengths and weaknesses in the preparation and implementation of a course plan. In the last week of the implementation of the model, the feedback model evaluation form along with the posttests was distributed to the preservice teachers to submit their written views on the feedback model.

### Data Analysis

The data obtained for the first two subproblems of the study were analysed using SPSS software version 16.0. The Shapiro-Wilk *W*-test was used to test the normality of data (Büyüköztürk, 2007, p. 42). If the *p*-value of the Shapiro-Wilk Test is greater than the cut-off for significance 0.05, the data are normal (Büyüköztürk, 2007, p. 42). The level of significance was greater than 0.05 in the normality tests of the data obtained from the MSLQ and RTTS pretests and posttest, thereby indicating that the data were normally distributed. Therefore, the paired samples *t*-Test was used to analyse the pretest and posttest data. Effect sizes were also calculated using eta squared. An eta squared value shows the size of the effect of an independent variable on a dependent variable and indicates the proportion of variance of a dependent variable that is explained by an independent variable (Büyüköztürk, 2007, p. 48).

The data obtained through the interview form for the third subproblem were analysed using content analysis. Content analysis enables an in-depth and thorough analysis of data and reveals themes that have emerged or not (Yıldırım & Şimşek, 2005). In this study, the forms filled in by 20 preservice teachers and 52 responses were transcribed into an electronic format. The responses to the three questions in the interview form were coded separately. Two experts were asked for opinions and an agreement was reached on the codes. The themes were formulated considering the frequency and topic of the codes.

## RESULTS

The findings are presented under the subsections below.

### Findings on Preservice Teachers’ Scores on the MSLQ

Because the level of significance was greater than 0.05 in the normality tests of the data from the MSLQ pretest (*p* = 0.74) and posttest (*p* = 0.65), the data were deemed normally distributed. Table 4 presents the results regarding the difference in preservice teachers pretest and posttest scores on the MSLQ.

**Table 4.** Analysis results of preservice teachers’ pretest and posttest scores on the MSLQ

Variables	n	$\bar{X}$	S	t	df	p	Eta Squared
MSLQ - Pretest	13	151.31	25.97	2.68	12	0.02	0.12
MSLQ - Posttest	13	167.23	19.64				

As seen in the table above, the mean pretest score on the MSLQ was  $\bar{X}$  =151.31 and the mean posttest score was  $\bar{X}$  =167.23. This difference was found to be statistically significant ( $t_{(12)} = 2.68, p < 0.05$ ). In other words, written and verbal feedback from the instructor and peers led to an increase in preservice teachers’ motivation. The eta-squared value indicates that the experimental process had a moderate effect on the change in preservice teachers’ motivation. Eta-squared ( $\eta^2$ ) ranges from 0.00 and 1.00. Depending on the eta-squared value, an effect size is interpreted as small ( $0.01 \leq \eta^2 < 0.06$ ), medium ( $0.06 \leq \eta^2 < 0.14$ ), or large ( $\eta^2 \geq 0.14$ ) (Büyüköztürk, 2007; Cohen, 1988). Similarly, Çelen (2010) and Ayar (2009) reported that teachers and students held the view that feedback increases motivation. These results highlight the contribution of using feedback in the teaching process to student motivation.

### Findings on Preservice Teachers’ Scores on the RTTS

Aside from the MSLQ, the RTTS was used to investigate the effect of feedback-based instruction on preservice teachers’ reflective thinking tendency.

Because the level of significance was greater than 0.05 in the normality tests of the data from the RTTS pretest ( $p = 0.99$ ) and posttest ( $p = 0.15$ ), the data were deemed normally distributed. Table 5 presents the results regarding the difference in preservice teachers pretest and posttest scores on the RTTS.

**Table 5.** Analysis results of preservice teachers' pretest and posttest scores on the RTTS

Variables	n	$\bar{X}$	s	t	df	p
RTTS - Pretest	13	90.54	7.23	1.03	12	.321
RTTS - Posttest	13	92.92	9.02			

Preservice teachers' mean score on the RTTS was higher in the posttest ( $\bar{X} = 90.54$ ) than in the pretest ( $\bar{X} = 92.92$ ); however, there was no statistically significant difference between the mean pretest and posttest scores ( $t_{(12)} = 1.03$ ,  $p > 0.05$ ). Tican (2013) examined the effect of reflective thinking-based instructional activities on preservice teachers' reflective thinking tendency. In her study, preservice teachers gave feedback to the group who delivered a presentation. She found no significant difference between the mean scores of the experimental group and the control group. Chaqmaqchee (2015) observed that peer and online feedback promoted students' reflective and critical thinking skills.

### Preservice Teachers' Views on the Effectiveness of the Feedback Model

As a result of the instruction based on the feedback model, the preservice teachers ( $n = 20$ ) were asked to write their views on the effectiveness of the model in a semi-structured interview form.

Table 6 shows the results of the analysis of preservice teachers' responses to the question "Do you think the feedback you received from your peers and instructor was instrumental in the material design process? What are your positive and negative views on these types of feedback?".

**Table 6.** Preservice teachers' views on the types of feedback received during the material design process

Parts of Questions	Themes
1. Individual feedback <i>(Feedback received at the beginning of the material design and throughout the process)</i>	<ul style="list-style-type: none"> <li>Contribution to development (n = 10)</li> <li>Convenience in producing ideas (n = 5)</li> </ul>
2. Individual feedback <i>(Feedback received at the end of the presentation)</i>	<ul style="list-style-type: none"> <li>Contribution to development (n = 9)</li> <li>Positive feedback (n = 6)</li> <li>Convenience in producing ideas (n = 2)</li> </ul>
3. Peer Feedback	<ul style="list-style-type: none"> <li>Positive feedback (n = 7)</li> <li>Objective feedback (n = 4)</li> <li>Contribution to development (n = 4)</li> <li>Providing motivation (n = 2)</li> </ul>

As shown in Table 6, the preservice teachers generally held the view that individual feedback that they received contributes to their development. Positive feedback was emphasised in the views as to the individual feedback received at the end of the presentation. Below are example remarks that reflect preservice teachers' views on the feedback that the instructor gave at the beginning of and during the process:

Preservice teachers' views on the contribution of feedback to their development:

*"I received positive feedback. There was a huge difference between the initial and final material." (PT1)*



*"The instructor was caring and gave advice throughout the process. This enabled me to enhance my material to be more educational." (PT5)*

*"I learned what, how and how to teach students." (PT11)*

*"It was really constructive and instrumental in helping me realize the points that I could not see by myself." (PT15)*

Views on the contribution of feedback to producing new ideas:

*"I was provided with helpful creative ideas in the design process." (PT3)*

*"I produced various material ideas in the light of each material presented and comments made in the classroom." (PT4)*

*"It provided practical insights. The instructor said that my material idea was good." (PT6)*

*"Several ideas flashed across my mind while preparing the material. It is the contribution..." (PT9)*

*"At the end of the presentation I saw where I was missing, I learned how to follow a path." (PT11)*

The preservice teachers also expressed views on peer feedback:

*"I think positive criticism will contribute to my development." (PT3)*

*"I think it was instrumental slightly thanks to visuals. I got positive criticism at the end of the presentation." (PT17)*

Additionally, a small number of preservice teachers reported that peer feedback was motivating but had limitations in terms of objectivity in the evaluation process. İnce (2016, pp. 248-272) also reported similar concerns about peer feedback. Some example remarks are as follows:

*"I noticed the weaknesses of my material in line with friends' advice." (PT5)*

*"I learned that texts must be more readable and more detailed information must be given." (PT19)*

In general, the preservice teachers held the view that the feedback model contributes to their learning and gives them the opportunity to notice their shortcomings in practice. All in all, it seems that the feedback model contributed to the learning process.

## DISCUSSION and CONCLUSION

In this study, written and verbal feedback from peers and the instructor increased preservice teachers' scores on the MSLQ. Preservice teachers' scores on the MSLQ increased significantly after the feedback model was implemented. Hatziapostolou and Paraskakis (2010) used an online feedback system and found that positive feedback strengthened students' motivation. Likewise, Kırbaç, Balı, and Macit (2017) noted that feedback mechanisms in the training process are instrumental in providing motivation. Khachatryan (2015) underscored that feedback has positive effects on students' future performance due to its motivation-enhancing nature. Thus, effective feedback motivates students to study and learn (Nicol & Macfarlane-Dick, 2006; Pinger, Rakoczy, Besser, & Klieme, 2018), thereby making the teaching-learning process more efficient.

The study found no statistically significant difference between the mean pretest and posttest scores on the RTTS. In a similar study, Schaaf, Baartman, Prins, Oosterbaan, and Schaap (2013) examined how feedback dialogues stimulate students' reflective thinking and reported that the group that received a feedback dialogue perceived feedback as more useful. They also reported that the more interaction the feedback process contained, the more students engaged in thinking activities. They further emphasised that teachers need to mobilize students during the feedback process as students tended to receive feedback without question. According to the qualitative findings of the current experimental study, the preservice teachers held the view that individual feedback contributes to their development and helps in generating new ideas. The preservice teachers also expressed that positive peer feedback they received was a contributing and motivating factor in their development and awareness of their shortcomings despite some limitations such as objectivity.

The study found that individual feedback contributes to preservice teachers' development and helps in generating new ideas. Feedback centred on individual needs yields more effective outcomes for learning (Pinger et al., 2018). Providing student-specific information through individual feedback might have a positive effect on learning and student motivation for courses.

The qualitative findings of the current study also showed that peer feedback increases motivation for the course when used objectively. Various findings have been reported on the advantages of peer feedback in the learning-teaching process. Ertmer et al. (2007) discussed that peer feedback contributes to learning while teacher feedback is more important. Ruegg (2015) argued that teacher feedback more often causes misunderstandings or unsuccessful revisions, while peer feedback more often leads to successful revisions. Considering the findings of this study, it can be said that peer feedback increases motivation for courses in higher education and is instrumental in the teaching process when used properly. These findings corroborate the findings of a great deal of the previous work. Çiftçi (2009) found that blog peer feedback was useful in students' writing achievement. Copland (2010) underscored that peer assessment helps students transfer their learning, improve analytical and communication skills, and develop various other skills such as independent learning, lifelong learning, and reflective learning. Ince (2016) found that peer feedback had a strong impact on preservice teachers' teaching qualifications regardless of the mode of feedback.

This study, which examines the effect of a feedback model developed for teacher training on preservice teachers' motivation and reflective thinking tendency, offers the following recommendations based on all findings:

- Greater efforts are needed to inform preservice teachers and instructors about the importance and effective use of feedback in teaching.
- Seminars on feedback and its features might be organized for instructors to increase the quality of teaching and feedback.
- Further research could explore the effectiveness of types of feedback in teacher training and focus on different aspects of feedback. Further research could use different research methods and recruit larger samples.

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