Full Length Research Paper

Perspectives of prospective elementary school teachers on feedback in the Mathematics Instruction I and II courses

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The purpose of this study was to examine prospective elementary teachers' views on the feedback provided by the instructor and their peers during the courses, Mathematics Instruction I and II, and its contribution to their learning. Forty participants were regularly given feedback by the instructor and their peers while they were taking Mathematics Instruction I and II in the 2013-2014 academic year. At the end of the academic year, a survey form was administered to them. The form contained open-ended questions designed for this study. The form contained open-ended questions designed for this study. The data, which were analyzed qualitatively, showed that prospective elementary teachers consider the feedback provided by the instructor as mostly descriptive, whereas the peer feedback as mostly evaluative. In addition, the former made a more positive contribution to the participants' performance, since it offered more guidance.

Key words: Feedback, characteristics of effective feedback, instructor feedback, peer feedback.

INTRODUCTION

Beginning in the 2005-2006 academic year, Turkey's national elementary school curriculum was gradually amended, and it was revised again in 2009. Accordingly, its instructional theories, methods and techniques were changed. This, in turn, led to radical changes in measurement and evaluation methods, techniques and approaches. For example, the 1998 elementary school mathematics curriculum used conventional measurement and evaluation methods, while the new one calls for portfolios, performance assessment, projects, self-assessment and peer assessment (Ministry of National Education, 2009). In other words, the new elementary

school mathematics curriculum recommends a formative approach to assessment (Baki, 2008).

Most research in the literature focuses on the relationship between measurement and evaluation and learning and recommends using formative assessment to contribute to student learning (Glover and Thomas, 1999; Higgins et al., 2002; Li and Steckelberg, 2004; Peterson and Irving 2007). Teachers who use a formative approach to feedback provide their students with constructive and detailed information about their misconceptions, thereby allowing them to correct their mistakes and deficiencies (Baki, 2008; Reys et al., 1998; Lipnevich and Smith,

2009). Research suggests that this type of feedback has positive effects on students' development (Sadler 1989; Skelton, 2002; Li and Steckelberg, 2004; Tunstall and Gipps, 1996; Taras, 2005; Lipnevich and Smith, 2009).

Feedback plays a pivotal role in improving students' performance, since it informs students about their performance and contributes to their abilities (Sadler, 1989; Higgins, 2000; Taras, 2005). Effective feedback not only boosts students' learning, but also leads to improved self-confidence and self-esteem (Black and Wiliam, 1998b; Chickering and Gamson, 1987; McKeachie, 1998). In his meta-analysis of 87 studies, Hattie (1987) found feedback to be the strongest factor in student accomplishment. Black and William (1998a) emphasized that feedback has more profound, consistent and positive influences on learning when compared to other instructional components. According to Walberg (1984), feedback is ranked third among 26 factors in student accomplishment. Similarly, Adrienne (1997) reported that feedback can increase student accomplishment from 50% to 89%. Prospective teachers (students enrolled in faculty of education) are learners that imitate practices of their teachers. Therefore, whether teachers can play key roles in facilitating student learning (Nicaise et al., 2007) depends on the extent to which they can properly use feedback, which is one of the main components of learning and assessment (Black and Wiliam, 1998b; Sadler, 1998; Torrance and Pryor, 1998). Only in this way can they support and reinforce student learning (Torrance and Pryor, 1998; Hattie and Timperley, 2007) and generate significant learning attainments.

It is reported in the literature that the principal characteristics of effective feedback concern timing and form as well as the person who provides it (Butler and Winne 1995; Kluger and deNisi 1996; Hattie and Timperley 2007). Studies indicate that providing feedback at the end of the student's performance is more effective, whereas feedback that interrupts what the student is doing has a negative influence on student learning (Brookhard, 2008). Research on the appropriate form of feedback decisively demonstrates that formative feedback is effective (Tunstall and Gipps, 1996) and evaluative feedback is not only ineffective, but also potentially even worse than not giving any feedback at all (Butler 1987; Butler, 1988; Kluger and DeNisi 1996; Davies, 2003; Gipps, 1999). Research also suggests that students would like to get formative feedback at the end of their performance (Straub, 1997; Bardine, 1999). There is little research on feedback in the Turkish literature (Bayraktar 1985; Köğce et al., 2008; Köğce et al., 2009; Çimer and Yiğit, 2010; Türkdoğan, 2011, Çabakçor et al., 2011; Köğce, 2012). Kogce et al. (2008) focused on the views of prospective mathematics teachers on feedback as a concept, whereas Cabakcor et al. (2011) attempted to identify what forms of feedback prospective mathematics teachers would like to get during mathematics classes and what forms of feedback

they actually get. Others have tried to determine the types of feedback that teachers use.

It is reported in the literature that most students read and pay attention to comments and feedback provided by their teachers (Ding, 1998; Bardine, 1999; Hyland, 2000; Higgins, 2000; Higgins et al., 2002; Doan, 2013). Therefore, improving student performance depends heavily on teachers' ability to provide effective feedback. In addition to teacher feedback, peer feedback should also be considered a key component of the educational process. Based on the principles of active learning and adult education, peer feedback is an alternative form of assessment in which students evaluate essays or presentations prepared by their peers. It encourages them to be engaged in reflection, discussion and cooperation. It involves exchanges of feedback among students, which enables them to learn from one another (Falchikov and Goldfinch, 2000; Wen et al., 2006; Vickerman, 2009; Strijbos and Sluijsmans, 2010; Li et al., 2010). In other words, the most significant educational function of peer assessment is that it offers detailed peer feedback (Falchikov, 1995). Thus, it not only enhances student responsibility and autonomy, but also provides students with a collaborative environment to work in (Earl, 1986; Falchikov and Goldfinch, 2000).

Pre-service training is a key factor in training teachers, a fundamental group in education, in accordance with modern necessities (Kaya and Samancı, 2013; Baştürk, 2015). This is because one of the most significant stages of teacher training programs is preparing prospective teachers for real educational environments (Sarıtaş, 2007). Depending on the quality of their pre-service training, some teachers may be encouraged to prepare a stimulus-rich environment to accelerate child development, while others may prepare inappropriate environments and thus restrict or inhibit child development (Baştürk, 2015). Therefore, teacher training programs are an indispensable part of the overall educational system and are constantly investigated and supervised (Akalın, 2014). Attempts are made to enhance the quality of teachers and prospective teachers through in-service and pre-service training, respectively, and teacher trainers are expected to encourage teachers to use effective instructional methods. Unless teacher trainers and mentors can give effective feedback on how prospective teachers should acquire knowledge about and competence in their fields, it is inevitable that they will misuse otherwise effective methods, techniques and materials (Gersten et al., 1997). Hence, prospective teachers should be taught about effective methods and techniques and given regular feedback (Scheeler, Ruhl and McAfee, 2004). This study is motivated by the fact that most research on feedback in the literature focuses on elementary school students and that there is little research on prospective teachers' perceptions of feedback (Köğce et al., 2008; Çabakçor et al., 2011). Moreover, there are some studies in the literature on the

characteristics and effectiveness of feedback provided by instructors and peers from students' viewpoint (Buhagiar, 2013; Lilly et al., 2010). However, these studies do not focus on students' views about comparing peers and teachers' feedback. For this study, prospective elementary teachers taking Mathematics Instruction I and II were asked to prepare and implement a lesson plan appropriate for the mathematics curriculum. In addition, they were asked to design and present a project about the relationship between mathematics and daily life. The detailed procedures for the entire study are explained in the next section. The objective was to urge the prospective teachers to share their knowledge with the instructor (lecturer that give Mathematics Instruction I and II courses) and their peers and to improve their assignments based on feedback. The participants were given feedback on their assignments by the instructor and their peers during two semesters (entire academic year). The instructor attended to the prospective teachers within and beyond the class hours both individually and as a group, providing feedback on how to improve their assignments. The procedures were followed by the study on the participants' views on the characteristics and effectiveness of the feedback provided by the instructor and their peers.

The significance of this study is highlighted by the fact its results can help instructors to plan and teach better. The following research questions were posed accordingly:

1. What are the views of the prospective teachers on feedback and its desired characteristics?
2. What are their views on the characteristics of the feedback provided by the instructor and their peers?
3. What are their views on the contributions of the instructor and peer feedback to their performance?
4. What are their preferences for receiving feedback?

The procedures in the Mathematics instruction courses

Great care was taken to make sure that the prospective teachers were actively involved in the process so that they could acquire the qualities specified in the elementary school mathematics curriculum. At the beginning of the first lesson, they were informed in detail about how the courses would be taught and the roles they and the instructor were expected to play. Both Mathematics Instruction I and II were conducted in two stages, theoretical and practical.

The theoretical part of Mathematics Instruction I was composed of classes that lasted for eight weeks, during which the instructor lectured on and gave examples of the nature of mathematics, learning approaches, instructional methods and techniques, the mathematics curriculum (objective, philosophy, vision, learning domains and attainments, pedagogy and so forth) and measurement and evaluation in mathematics instruction

(conventional and alternative methods). In the practical part, the prospective teachers were asked to form groups of five members with whom they can work in harmony and cooperation according to previous research suggestions (Webb, 1991; Leonard, 2001; Gillies, 2002; Johnson and Johnson, 1990). Then, each group was given five or six complete learning attainments from the elementary school mathematics curriculum.

Initially, the group members were not individually assigned learning attainments so that they could work effectively as a group and contribute to each other's learning. The instructor informed the students about the learning attainment they would present at the beginning of the class in which they would do so. This was done to prevent the group members from attempting to distribute the learning attainments among themselves and working on their part individually. Then, each group was asked to prepare a lesson plan (worksheets, activities, materials and so forth) in accordance with the recommendations in the elementary school mathematics curriculum and the theoretical lectures.

Lesson planning took place in two stages. In the first stage, the group members were involved in individual planning for each of the attainments assigned to their group. Then, they met and worked together to come up with a draft lesson plan for each attainment. In the second stage, the instructor held meetings with one or two groups every week to examine their draft lesson plans. They were given feedback and advice on their strengths and weaknesses and how to improve their lesson plans. Finally, the group members revised their lesson plans in accordance with the feedback and advice provided by the instructor.

Every week one or two groups taught their lesson plans for 20 to 25 min in artificial classrooms where their peers played the role of students. Each teaching session was followed by feedback and advice by the instructor and peers of other student groups.

Mathematics Instruction II involved two activities. The first activity, in which the prospective teachers were asked to do a project on the relationship between mathematics and daily life, was further divided into two parts. The first part was theoretical, and the instructor explained a sample project and its procedures for four weeks. In the second part, which was practical, each prospective teacher was asked to reflect on the relationship between mathematics and daily life and to identify five researchable topics on their own. Then, the group members were told to work together on the draft topics identified by the members and to decide on five researchable topics as a group. Each group presented their topics, along with the rationale for them, in the classroom. Each presentation was followed by feedback given by the instructor and peers on the researchability of the topics. Then, the final topics were specified for each group as a result of class discussion with the instructor's approval. Each group prepared its project in accordance with the procedures explained in the theoretical part and

presented them for 10 to 15 minutes every week. The presentations were followed by instant feedback and advice by the instructor and peers according to suggestions of Butler and Winne (1995), Kluger and deNisi (1996) and Hattie and Timperley (2007). Thus, the procedures for the projects were completed in ten weeks of weekly preparations and presentations.

For the second activity, each prospective teacher was expected to contact an elementary school teacher to decide on a learning attainment for mathematics and to design an implementation in an authentic classroom in the same way they had learned during Mathematics Instruction I. After they had identified their learning attainments, the prospective teachers individually prepared their draft lesson plans, activities and materials. Then, they submitted them to the instructor and their peers. Next, they revised them in accordance with the feedback and advice given by the instructor and their peers. Afterwards, they taught their lesson plan in the classroom of the elementary school teacher they had contacted in the beginning. The other members of their groups observed the teaching and provided peer assessment and feedback. In this way, the prospective teachers were provided with feedback by both the instructor and their peers on their lesson plans, activities and materials; however, their teaching was only followed by peer feedback.

METHOD

Qualitative research methodology was used to identify the views of the prospective teachers on the characteristics of the feedback provided by the instructor and their peers and its contribution to their learning during Mathematics Instruction I and II, two courses taught in the department of Elementary School Education (Yıldırım and Şimşek, 2003).

Participants

The study was conducted with 40 prospective classroom teachers (33 females and 7 males) who took Mathematics Instruction I and II during the 2013-2014 academic year as part of the curriculum of the department of Elementary School Education at Nigde University. This sampling corresponds to a Complete Target Population that "involves interviewing and/or observing everyone within a group of interest" (Patton, 2015, p. 285).

Data collection

The data were collected using a survey form that contained five open-ended questions designed for the purpose of the study. This survey was applied at the end of the summer semester. Prospective teachers were voluntary participated to the survey. Students were asked not to write their name on the survey. Each prospective teacher gave a written response in class with the presence of the instructor to the questions considering the feedback provided by the instructor and their peers.

The questions on the survey form were:

1) What does feedback mean to you? Explain in detail.

2) What characteristics do you think feedback should have? Explain in detail.
3) Considering the feedback you were given during Mathematics Instruction I and II,
a) Explain the extent to which the feedback provided by the instructor conformed to the characteristics of the feedback you listed as an answer to Question 2 and make reference to the feedback you were given.
b) Explain the extent to which the feedback provided by your peers conformed to the characteristics of the feedback you listed as an answer to Question 2 and make reference to the feedback you were given.
4) Considering the feedback you were given during Mathematics Instruction I and II,
a) Explain in detail whether the feedback provided by the instructor contributed to your assignments (your project, teaching sessions and activities you did in the artificial and authentic classrooms) and give examples.
b) Explain as a student in detail whether the feedback provided by your peers contributed to your assignments (your project, teaching sessions and activities you did in the artificial or authentic classrooms) and give examples.
5) Considering the feedback you were given during Mathematics Instruction I and II, would you like to receive feedback from the instructor or your peers? Why? Explain and justify your views.

Data analysis

The prospective teachers' responses to the open-ended questions were scanned and saved as picture files. After the researcher and a specialist examined the data set, they identified the themes to be used in the qualitative analysis. Then, they used MAXODA 11, an analysis program for qualitative data and analyzed the data set separately. The inter-coder reliability was $\alpha=0.89$.

The researcher and specialist studied together the codes and sub-codes they had separately identified, highlighted the similar ones, negotiated the dissimilar ones, reached an agreement and generated common codes and themes (Merriam, 1988; Yin, 1994). These themes, subthemes and codes were finalized in accordance with two domain experts. This procedure was essential to enhance the reliability and to verify the codes and themes. Then, MAXMaps, a feature of MAXODA, was used to create graphics for the themes, subthemes and codes. Accompanied by the relevant frequencies and percentages, the graphics are presented in the findings section, which also includes direct quotations regarding each code from the prospective teachers, who were assigned numbers ranging from 1 to 40 (e.g., PT5, for prospective teacher 5). The theoretical frameworks of Brookhard (2008) and Tunstall and Gipps (1996) were used to link codes and themes each other.

Validity and reliability

This study took into account the validity and reliability measures recommended for qualitative research (Yıldırmm and Şimsek, 2003). For internal validity, the prospective teachers were asked to give sincere responses to all the questions on the survey form and to consider the feedback they had received during Mathematics Instruction I and II. For external validity, an attempt was made to present the findings in a manner consistent with the research questions.

Attempts to ensure external reliability involved the identification of the researcher's position, the definitions of the educational processes studied, the conceptual framework used for the data analysis, the specification of the codes and themes (Figures 1-6) and detailed explanations of the data collection and analysis methods. For internal reliability, the researcher and a specialist

FINDINGS

The purpose of this study was to identify the views of the prospective teachers on the characteristics of the feedback provided by the instructor and their peers during Mathematics I and II and its contribution to their performance.

The data were analysed, and the findings were presented with tables and explanations and then interpreted. Since some responses were grouped under more than code, the percentages may exceed 100%.

Prospective teachers' perspectives on feedback and its desired characteristics

The first research question was as follows: "*What are the views of the prospective teachers on feedback and its desired characteristics?*" Analyses show that prospective teachers consider feedback as positive or negative information about their performance however they don't consider as information about things done properly. The findings for this question are shown in Figures 1 and 2.

The views of the prospective teachers on feedback were grouped under five codes (Figure 1). More than half of them described feedback as positive or negative information about performance. PT6 exemplifies this code.

[PT6]: Feedback refers to comments by peers or teachers on an assignment or work that someone has done or presented. Related to performance, feedback can be positive or negative. It means peers or teachers giving positive or negative information about what one has done poorly or well.

PT39 proposed a similar definition.

[PT39]: Feedback is positive or negative criticism from our peers or you of the good or not so good aspects of our assignments, presentations and reports.

Viewing feedback as criticism of someone else's work, PT26 proposed the following definition.

[PT26]: It is an external assessment of the work. That is, it is positive or negative criticism to reveal its quality.

Those participants who described feedback as positive or negative information about performance did not consider the guiding aspect of feedback or its contributions to performance. Even so, 35% of the prospective teachers defined feedback as information that guides (correcting mistakes or deficiencies). One of them was PT14.

[PT14]: Instead of criticizing positively or negatively, feedback should give an idea of what should be done to improve an assignment and show the person doing it what to do.

Here are the words of another prospective teacher who emphasized the guiding aspect of feedback and proposed a similar definition.

[PT20]: It is guidance that we give to others during the communicative process so that they can correct any deficiencies and better their assignments.

More than a quarter of the prospective teachers (27.5%) viewed feedback as information that points out mistakes or deficiencies. PT2 defined the term in this way.

[PT2]: Assignments by individuals or groups are examined by others (teachers or peers) and poor aspects or deficiencies are reported.

Considering what was done during the courses, PT2 described the term in a similar way.

[PT22]: Feedback means examining the stages of an assignment, project or other activities, evaluating the peer who does it and informing them of its deficiencies.

Those prospective teachers who defined feedback as pointing out deficiencies and mistakes or positive or negative information about performance neglected one property of feedback: offering guidance to help improve an assignment or performance.

Only a few participants considered feedback to be information that triggers in-depth thinking and information about things done well. Those who chose the former description reported that feedback should enable people to look at their assignments in different ways and thus improve them. PT8 and PT14 explained this view.

[PT8]: Feedback is an assessment that sheds light on a person's ideas and thoughts about a certain event or situation and enables them to look at what they are doing in a more comprehensive and detailed manner. Our assessment should help others improve their ideas and thoughts.

[PT14]: Instead of criticizing an assignment positively or negatively, feedback should inform others and enable them to think about and form an opinion about what should be done. It should enable them to see their past and future.

The prospective teachers who defined feedback as information about things done well emphasized that feedback should increase motivation and reinforce desired behaviour. PT24 and PT35 expressed this idea.

[PT24]: It is an assessment of the positive aspects of an activity or project. Basing the assessment on positive
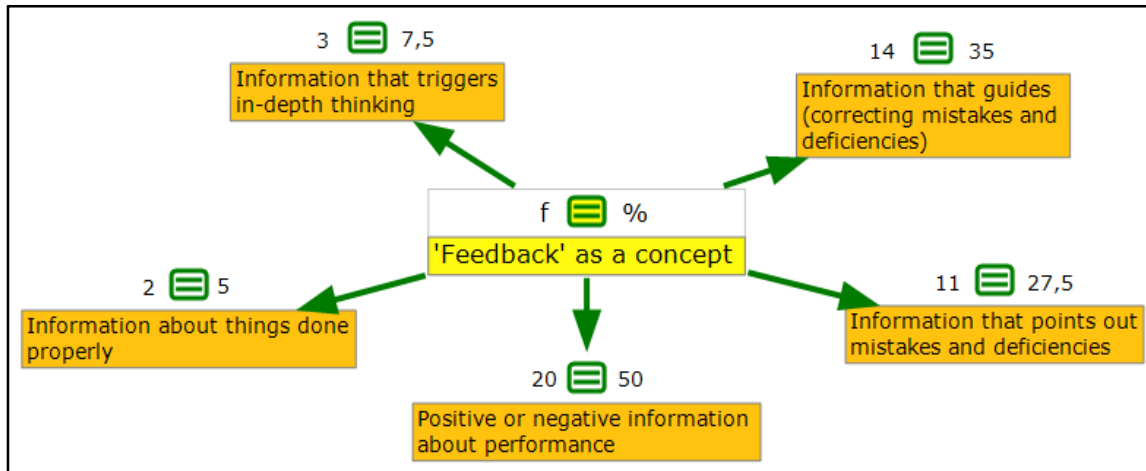
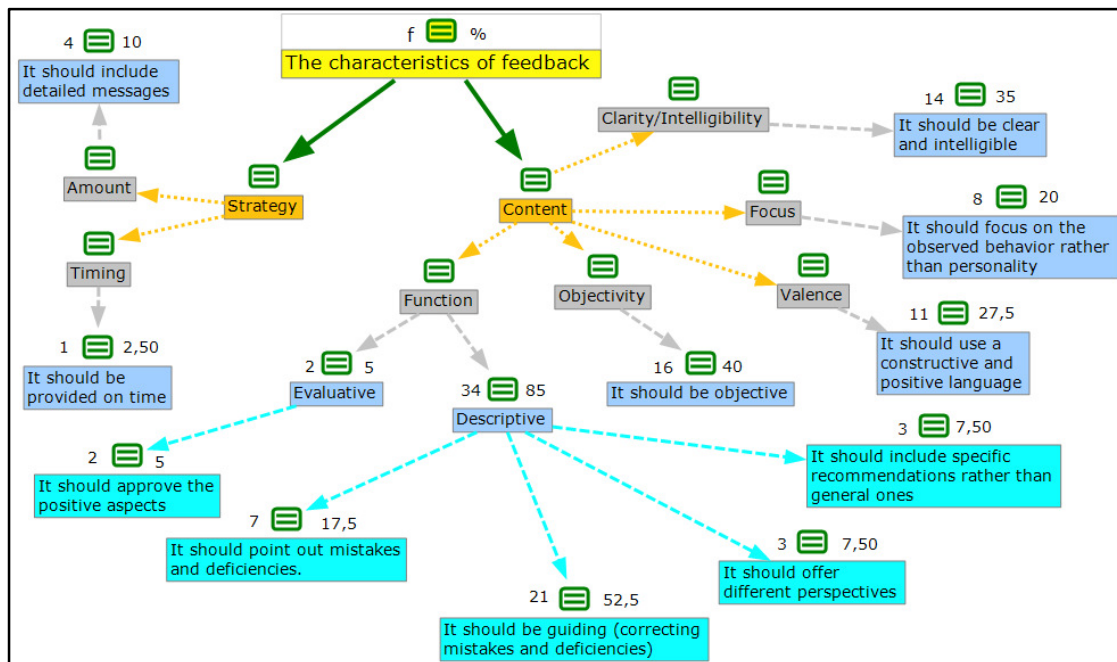**Figure 1.** The distribution of the answers about feedback.

Figure 2. The distribution of the answers about the desired characteristics of feedback.

aspects rather than negative ones will lead to increased motivation.

[PT35]: It is an assessment that reinforces desired behaviour demonstrated by students in their activities or projects.

Figure 2 presents the distribution of the themes, categories and codes concerning the prospective teachers' views on the desired characteristics of feedback.

When the data were coded, two main themes were generated: strategy and content. The former was composed of two subthemes, namely, the amount and timing, whereas the latter consisted of five subthemes, namely function, objectivity, tone, valence, focus and clarity/intelligibility.

The majority of the participants (85%) stressed the descriptive function of feedback, while only a few of them (5%) emphasized its evaluative function.

More than half of the participants (52.5%) reported that feedback should guide them how to correct mistakes or

deficiencies. An example of these participants could be PT8 and PT22, who also highlighted some other characteristics.

[PT8]: Feedback should be objective and useful. It should be explanatory, not general. For example, it should not be like, "You did this," "You should not have done this," or, "You did not do that." Instead, it should be like, "It would be better if you could add this to your assignment." The advice should shed light on deficiencies and guide you how to correct them.

[PT22]: Feedback should be provided objectively without considering friendship or belonging to groups. Feedback should point out, with justification, what deficiencies there are and how they can be corrected. Also, things that are already being done well should be supported with positive comments.

About the other codes for feedback's descriptive function, 17.5% of the prospective teachers said that feedback should point out deficiencies or misconceptions. In addition, 7.5% of them reported that it should provide new insights. Another 7.5% noted that it should give specific rather than general advice. For instance, PT3 and PT4 emphasized these characteristics of feedback as well as some other characteristics concerning the other dimensions.

[PT3]: Feedback should be clear and intelligible. Those who receive it should be able to identify what deficiencies or mistakes there are. In addition, feedback should be provided in detail. It should not be superficial.

[PT4]: It should be multifaceted. That is, it should enable students to look at their assignments from a variety of perspectives. The feedback should be about the whole assignment, not just a part of it. It should convey specific rather than general messages.

In terms of content, 40% of the prospective teachers said that feedback should be objective, and 35% reported that it should be clear and intelligible. More than a quarter of them noted that it should use constructive and positive language. One-fifth of them stressed that it should focus on the observed behaviour rather than personality. PT2, PT7 and PT9 expressed these views.

[PT2]: It should present the most objective information about the work. It should be clearly understood by others, and it should fully describe any deficiencies.

[PT7]: I think feedback should not target any person. That is, if I have explained a topic, the feedback should be about the topic, not me. The person who gives the feedback should be objective. It should make positive and negative comments as well as guidance.

[PT9]: Feedback should be constructive. It should give positive advice on how an assignment can be improved, and it should be objective. It should also be clear and intelligible.

In terms of the desired amount of feedback, 10% of the prospective teachers said that it should convey detailed messages. Only one of them emphasized that feedback should be provided in a timely fashion. PT5 and P32 emphasized these characteristics of feedback and others.

[PT5]: It should be able to correct mistakes or deficiencies. Also, it should be provided immediately, not later.

[PT32]: Feedback should be detailed and supplementary. It should include detailed information about what should be done, and it should be supplementary. It should be objective, too.

Characteristics of the feedback provided by the instructor and their peers

The second research question was: *"What are the views of the prospective teachers on the characteristics of the feedback provided by the instructor and their peers?"* The majority of the prospective teachers reported that the instructor's feedback during Mathematics I and II was descriptive yet they didn't report evaluative characteristics of feedback. The findings for this question are shown in Figures 3 and 4.

Figure 3 shows the distribution of the themes, categories and codes generated when the data for the participants' views on the characteristics of the instructor's feedback were coded.

According to 92.5% of the participants, the instructor feedback guided them on how to correct mistakes or deficiencies. Also, 10% of them said that it focused on the positive and negative aspects at the same time. A small percentage (7.5%) reported that it gave specific rather than general advice, and another 7.5% emphasized that it provided new insights. PT1, PT7, PT11 and PT16 stressed these descriptive characteristics and others regarding strategy and content.

[PT1]: The feedback you provided enabled us to look at our project topic in a different way. It was guiding. It was especially useful for the topic we were supposed to research for our project. For example, it helped us to shape our weekly assignments such as specifying our research questions and choosing the people that we were going to meet.

[PT7]: The feedback by the instructor was definitely objective. The comments were not about us or our
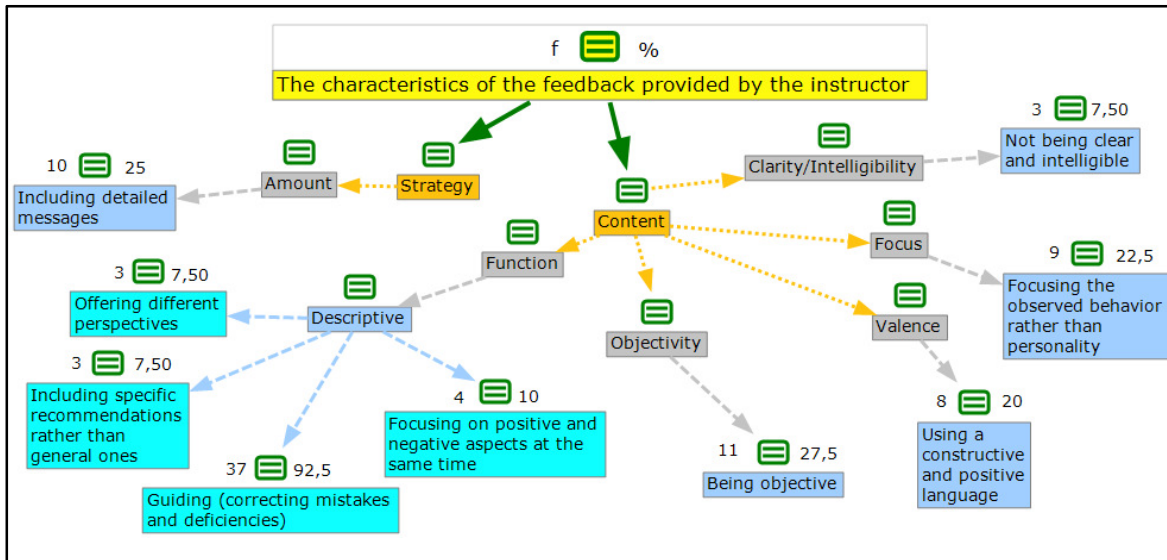
Figure 3. The distribution of the answers about the instructor feedback.
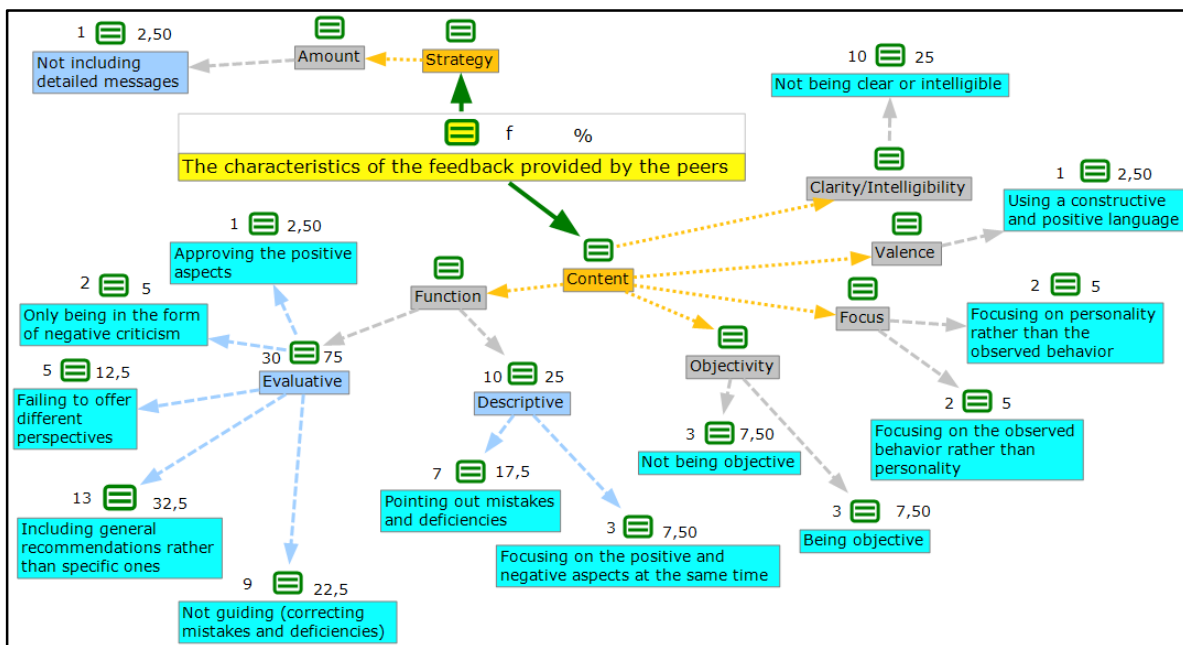

Figure 4. The distribution of the answers about the peer feedback.

personality. Instead, they focused on the deficiencies in our assignments and how we could correct them. The instructor never said, "You are like this or that," but only considered our assignments and presentations. The instructor's feedback was not only positive, but also guided us how to correct deficiencies. For example, the instructor liked the introduction of our project, but pointed out the deficiencies in other sections and explained how to correct them without ever being offensive at all.

[PT11]: Your feedback in the first term made a significant contribution to my work. If I feel ready to teach mathematics, I owe you a lot. Your feedback was objective and useful. I prepared and presented the lecturing assignment in accordance with your feedback. For example, I was going to lecture on addition. When I got prepared and talked to you, you told me that my draft plan was teacher-centered. You provided feedback on how I could adapt it to constructivism, and it was very

useful.

[PT16]: The feedback provided by the instructor was purely objective. It was related to the purpose and content of the assignment, not our character. The instructor not only told us how to correct our mistakes, but also explained why some of the things we did were already good. The instructor's feedback always shed light on our assignments because it was always in the form of specific information about what we should do.

[PT28]: The feedback we were given during the courses provided an opportunity to correct the things we failed to understand or do during the courses. It was not meant as criticism or finding faults. It helped us correct deficiencies. It was always constructive and positive.

In addition to its descriptive characteristics, the instructor feedback was also evaluated in terms of objectivity, valence, tone, focus and intelligibility. According to 27.5% of the prospective teachers, the feedback was objective. Similarly, 22.5% of them reported that it focused on the observed behaviour rather than personality. The responses of PT7 and PT28 above exemplify these views. Even so, 7.5% of the participants said that the instructor feedback was not clear or intelligible. PT23 and PT37 expressed their views as follows.

[PT23]: Your feedback was not clear enough, for mistakes and deficiencies persisted even though you provided feedback on them in every class.

[PT37]: The sentences in your feedback were sometimes unclear, or I couldn't understand them. So I had difficulty figuring out what I should do for the project.

According to a quarter of the prospective teachers, the instructor feedback conveyed detailed messages. This was emphasized by PT9 and PT21, who also commented on some other characteristics.

[PT9]: You gave advice to get better results. Your feedback was detailed. It was not haphazard. You explained and justified your advice in detail.

[PT21]: The feedback by the instructor was more than detailed. It not only pointed out deficiencies, but also helped us to correct them. For example, the instructor checked our projects and gave advice on a weekly basis, which was quite useful.

Figure 4 presents the distribution of the themes, categories and codes generated when the data for the participants' views on the characteristics of the peer feedback were coded.

When the data were coded, two main themes emerged: strategy and content. The former had a subtheme (amount), whereas the latter was composed of five sub-themes (function, objectivity, tone, focus and intelligibility).

The majority of the prospective teachers reported that the peer feedback in Mathematics Instruction I and II was evaluative (Figure 4). As for the codes, 32.5% of them said that it gave general rather than specific advice, and 22.5% of them noted that it did not offer guidance to help correct mistakes or deficiencies. In addition, 12.5% of them stressed that it failed to provide new insights. PT1, PT2, PT4, PT20 and PT21 expressed these views.

[PT1]: Actually, I don't think the feedback given by our peers provided new insights. It was far from enabling us to look at our assignment in different ways and to make it better.

[PT2]: The feedback given by our classmates was too general. Even though it pointed out deficiencies, it did not inform us about how to correct them.

[PT4]: It would be wrong to say the feedback we received from our peers was enough. Instead of guiding us, it was too general and brief. For example, it was in the form of general statements such as, "The problem should be fixed," or, "References should be added," but it did not inform us about how to put the advice into action.

[PT20]: The feedback given by our peers was mostly about things that we were already aware of, but did not know what do to about. So it did not even take us a step further.

[PT21]: The feedback we got from our peers was not useful since it did not give any advice. It was only in the form of statements like, "This should be done." But we were already aware of this! It did not contribute to our assignment since it was not supported by potential solutions or ideas.

A small percentage of the prospective teachers (5%) said that the peer feedback was only in the form of negative criticism, a situation described by PT5.

[PT5]: The feedback given by my peers was not very effective. It did not affect me much since it was in the form of negative criticism rather than a helpful contribution.

On the other hand, PT28 said that the peer feedback "concerned the positive aspects and it did not express criticism or attempt to correct the deficiencies." In other words, the feedback only focused on the positive aspects of their assignments.

A large number of the prospective teachers noted that the feedback they received from their peers was descriptive. According to 17.5% of them, it pointed out deficiencies or misconceptions, and 7.5% of them

reported that it focused on the positive and negative aspects. PT10, PT35 and PT38 expressed these views.

[PT35]: The feedback given by my peers enabled me to understand both the positive aspects of my study and the mistakes in it.

[PT38]: Even though the feedback given by my peers enabled me to identify the positive and negative aspects of my assignment, it was not useful because it did not offer a solution like, "It will be better if you do this." It only pointed out deficiencies and good aspects.

[PT10]: Without straying from the point, our peers reported, in an objective and critical manner, what should be done, what deficiencies there were, and what should be added.

In addition to its evaluative and descriptive characteristics, the peer feedback was also evaluated in terms of objectivity, valence, tone, focus and intelligibility. According to 25% of the prospective teachers, it was unclear or unintelligible. One of the participants with this idea was PT40.

[PT40]: The feedback given by our friends was too general. It did not make significant contributions to us since it was not clear or intelligible. Your feedback was more intelligible.

According to 75% of the prospective teachers, the peer feedback was objective, whereas 7.5% of them said that it was not objective. An example of the former group of teachers was PT10, whose views were quoted above. As for the latter, PT30 made this comment.

[PT30]: My peers were not competent enough to provide feedback. Their feedback was far from being objective. It was dominated by their egos.

While 5% of the prospective teachers said that the peer feedback focused on the observed behaviour rather than personality, another 5% reported that it focused on personality rather than the observed behaviour. PT7 and PT16 expressed this view:

[PT7]: The feedback given by our peers did not include any offensive remarks. That is, it was in the form of comments on our assignments and presentations rather than targeting us.

[PT16]: Much of the feedback given by my peers did not bear the hallmarks of objectivity. In particular, the feedback that we got when we did our own lecturing as part of the Mathematics Instruction I course was not about our lecturing. It targeted my own personality.

Only one of the prospective teachers reported that the peer feedback used constructive and positive language.

[PT9]: The feedback given by my friends involved constructive and positive statements, but it was not detailed. It was general. It did not offer much guidance.

Another prospective teacher (PT32) noted that the peer feedback did not convey detailed messages.

[PT32]: The feedback given by my friends was rarely detailed or objective. So it did not contribute to our assignment.

Contributions of the instructor and peer feedback to performance

The third research question was: "What are the views of the prospective teachers on the contributions of the instructor and peer feedbacks to their performance?" The prospective teachers said that the instructor feedback made a positive contribution to their performance. The findings for this question are shown in Figure 5. The views of the participants were grouped under two main themes, namely the contributions of the instructor feedback and the contributions of the peer feedback. According to 83.5% of them, it enabled them to improve on their assignments. PT7 described the contributions of the instructor's feedback.

[PT7]: The feedback given by the instructor was profoundly effective in our projects and assignments. This is because the instructor constantly provided us with feedback that guided us. Thanks to this feedback, we learned what to do to improve our assignments. It made a significant contribution.

Similarly, PT24 noted that the instructor's feedback contributed to the lesson plan prepared as part of the course.

[PT24]: The feedback you provided made a positive contribution to my work. When I submitted my lesson plan to you, you provided with me some feedback on it. I, in turn, made the best of your feedback to make the plan more functional.

According to 32.5% of the prospective teachers, another contribution of the instructor's feedback was that it enabled them to learn by doing and experiencing. PT4 and PT26 expressed this view.

[PT4]: This was the first time we had done such a project. We had no idea how to do it. The feedback you provided was good guidance for this. We learned by doing and experiencing because we carried out the project step by step, and you provided us with feedback that guided us about our deficiencies every week.

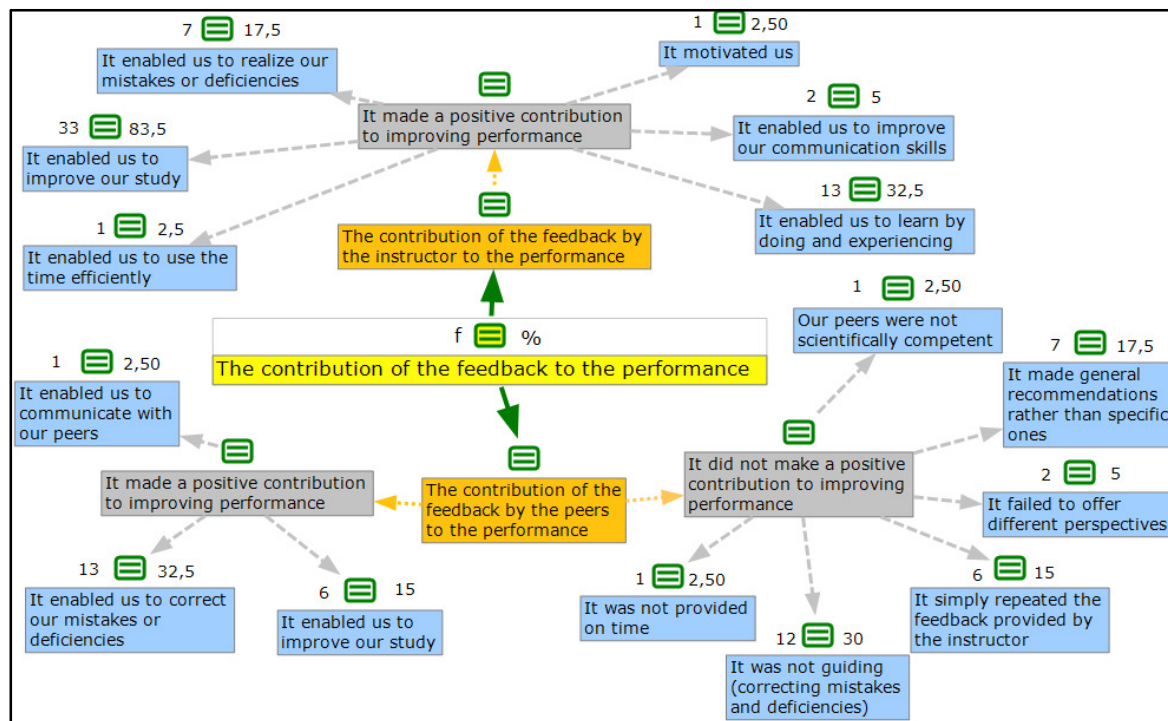[PT26]: It helped me a lot with the activities I did in the

Figure 5. The distribution of the answers about the contributions of the feedback to the performance.

real classroom. Thanks to the feedback we received during Mathematics Instruction I, I learned how to prepare a lesson plan, worksheet or material appropriate for the mathematics curriculum and how to have students work as a group. I took this feedback into account while I was getting prepared for the exercise that followed. To me, it was a rehearsal for teaching.

According to 17.5% of the prospective teachers, the instructor's feedback enabled them to identify their mistakes or deficiencies. An example of these teachers is PT35, who referred to the instructor feedback given during the project design.

[PT35]: During the project design, your weekly feedback enabled us to identify our mistakes or deficiencies. Similarly, we identified the deficiencies or mistakes in our draft project poster thanks to your feedback.

One of the prospective teachers said that the instructor's feedback enabled them to use time efficiently. Another participant reported being motivated by it. Also, two participants noted that it enabled them to improve their communication skills. Here are some of these views.

[PT5]: It helped us improve on our assignment. We assessed and implemented feedback about mistakes or deficiencies. Also, we were motivated by the feedback on the positive aspects of our assignment.

[PT13]: The feedback given by the instructor enabled us to use time efficiently. That is, we saved time in our attempts to correct mistakes or deficiencies thanks to guidance from this feedback.

[PT39]: Yes, it made contributions. Especially in the group work activity, I had difficulty in the beginning, but your feedback enabled me to enhance my communication with the group. Before your feedback, we had limited discussions about our assignment. That is, your feedback allowed us to look at our assignment in different ways and gave us much more to discuss.

On the other hand, the views on the peer feedback were less uniform. Some participants said it made a positive contribution to their performance, while others did not agree. According to 32.5% of the participants, the peer feedback enabled them to correct mistakes or deficiencies, and thus made a positive contribution to their performance. PT11 and PT26 expressed this view.

[PT11]: Some feedback provided by our peers literally pointed out the deficiencies in our assignment. We considered their ideas and revised it accordingly. Thus, it made a positive contribution.

[PT26]: As a student, I found it quite useful to be evaluated by my peers and be informed about deficiencies and how to correct them.

In addition, 15% of the prospective teachers reported that the peer feedback enabled them to improve on their assignments and thus contributed to their performance. PT25 and PT36 expressed this view.

[PT25]: It made a contribution. For example, during the project design, I did not think that our sub-problems or findings were incomplete, but we identified and corrected the deficiencies and then submitted the project thanks to feedback from our peers.

[PT36]: It made a positive contribution. Especially the feedback by the members of the other groups contributed to our project. We took their perspectives and recommendations into account to revise the finding section of our project.

Only one of the prospective teachers emphasized the communicative aspect of the process.

[PT13]: The feedback we received from our peers enabled us to keep in touch with them. For example, we constantly communicated with one another while planning our lesson plans. We benefited from each other's ideas. We helped each other to prepare materials, games and activities appropriate for the grade level. This had a positive influence on our performance.

More than a quarter of the participants (30%) reported that the peer feedback did not make a positive contribution to their performance because it was not guiding. PT21 and PT39 expressed this view.

[PT21]: The feedback we received from our friends was not useful since it did not give any advice. It was like, "This should be done." We were already aware of this! It did not make any contributions since it was not supported by potential solutions or new ideas.

[PT39]: The feedback provided by my classmates was far from guiding. It was too superficial. Therefore, it did not make a significant contribution to my work, unfortunately.

According to 17.5% of the prospective teachers, the peer feedback did not make any contributions to their performance because it gave general rather than specific advice. For example, PT8 and PT37 said that the peer feedback was too general and did not include any specific information.

[PT8]: It did not make any contribution. That is because it was either a general comment on our assignment or a repetition of what the instructor had already said.

[PT37]: Not much, since the feedback by the friends was too general. It did not include specific information about what sections of our assignment we should

improve.

In addition, 15% of the prospective teachers reported that the peer feedback was a repetition of the instructor feedback and therefore they chose to consider the latter instead of the former. PT8 expressed this idea above. A similar view was expressed by PT2.

[PT2]: The feedback given by our classmates did not make much of a contribution since it was about deficiencies that had already been identified by the instructor.

One of the participants said that the peers could not provide useful feedback since they were not scientifically competent.

[PT16]: The feedback given by our friends did not make significant contributions to our assignment. Since they had incomplete scientific information, they failed to give useful advice.

Moreover, two prospective teachers said that their peers failed to provide new insights. PT20 commented on this.

[PT20]: The feedback given by our peers did not make much of a contribution. That is because it was not qualified enough to enable us to look at our assignment in different ways. They provided feedback on the same aspects that we had already identified.

One of the participants said that the peer feedback did not make a positive contribution to their performance because it was not given in a timely fashion.

[PT5]: The feedback provided by our peers did not make any contribution to our assignment since it was provided later, not immediately.

Preferences of prospective teachers for receiving feedback

The fourth research question was: *"What are the preferences of the prospective teachers for receiving feedback?"* Analyses show that prospective teachers mostly prefer receiving feedback from instructor. The findings are shown in Figure 6.

Whereas some of the participants preferred to be provided with feedback only by the instructor, others wanted to be given feedback by both the instructor and their peers.

Less than one-fifth of the participants (17.5%) preferred to receive feedback from both the instructor and their peers because they thought this would provide new insights into their assignments. PT1 and PT21 expressed this view.
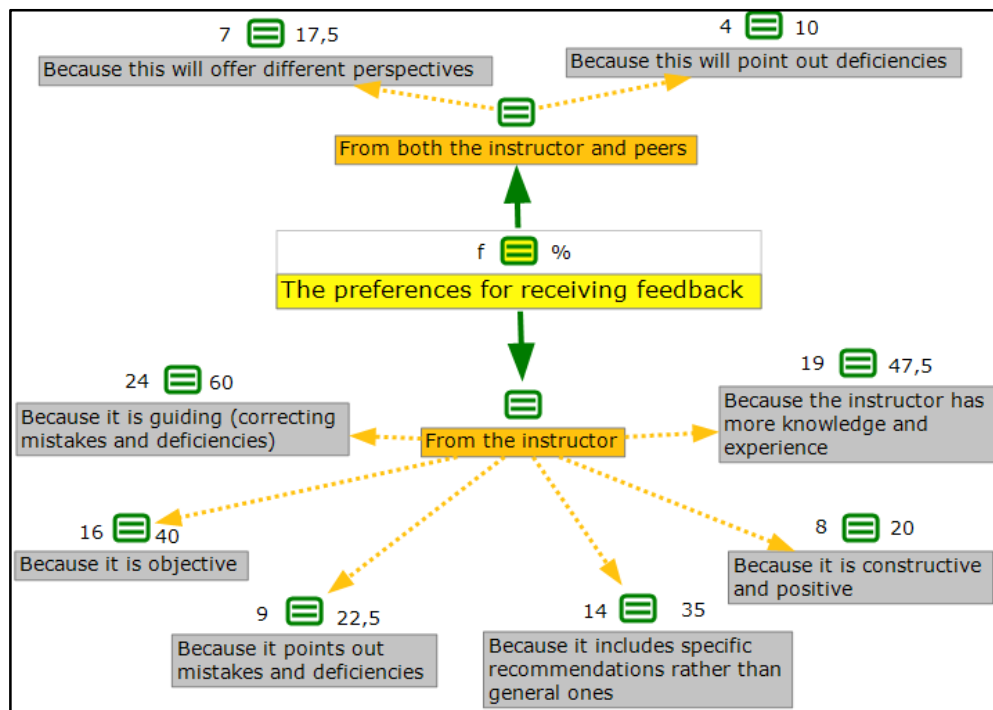
Figure 6. The distribution of the answers about the preferences for receiving feedback.

[PT1]: I would like to get feedback from both the instructor and my peers or other friends. That is because I believe the more perspectives on my work there are, the closer it will be to what is considered good.

[PT21]: Both the instructor and our peers have ideas that are vital to our assignments. As a trained specialist, the instructor's guidance definitely contributes to our assignments. Similarly, different ideas of our friends contribute by providing new insights. This allows us to look at our assignments in a different way. This, in turn, helps us to improve.

Similarly, 10% of the prospective teachers preferred to get feedback from both their peers and the instructor because they thought different sources of feedback would enable them to identify the deficiencies in their assignments. PT3 offered an example of this view.

[PT3]: I would like to get feedback from both of them. That is because the better one can identify deficiencies, the easier it is to correct them.

On the other hand, the views of the prospective teachers who preferred to receive feedback only from the instructor were grouped under six headings. More than half of the participants (60%) noted that the instructor feedback was guiding. PT5 and PT6 expressed this view.

[PT5]: I prefer to get feedback from the instructor. This

is because the instructor feedback is guiding and thus usable. However, the peer feedback is mostly criticism and thus not useful.

[PT6]: Considering the feedback I received during the courses, I would prefer to get feedback from the instructor. This is because the instructor can assess my performance more accurately and objectively. The instructor is better at spotting deficiencies and giving advice on how they can be corrected. Since our peers cannot assess and provide feedback as well as the instructor can, their feedback is not as useful.

In addition, 47.5% of the prospective teachers preferred feedback from the instructor because the instructor could provide more useful feedback thanks to having more knowledge and experience. PT39 exemplifies this view.

[PT39]: I certainly don't want to get feedback from my peers on topics as part of Mathematics Instruction I and II. This is because all they do is to criticize, and they never introduce new ideas or advice. I would like to get feedback from the instructor, since the instructor has more knowledge and experience, monitors the process in a better way and offers a wider variety of advice and ideas.

Also, 40% of the prospective teachers preferred to get feedback from the instructor because it was more objective. PT6 expressed this view above.

Another reason for this preference was that the instructor's feedback gave specific rather than general advice. PT16 identified the characteristics of the feedback given by the instructor.

[PT16]: Considering the feedback we received during Mathematics Instruction I and II, my peers gave more general and superficial feedback in the form of criticism. Thus, I would prefer to get feedback from the instructor, whose feedback is more objective and includes more accurate and specific information. It also guides us and helps us to correct deficiencies.

According to 22.5% of the prospective teachers, the reason for preferring to get feedback from the instructor was that it enabled them to identify their mistakes and deficiencies. PT17 exemplifies this view.

[PT17]: Of course, I would prefer to get feedback from the instructor. The instructor has a better command of the topic and is better at spotting mistakes and deficiencies because of this. Thus, the instructor can provide more detailed feedback on our assignments.

Finally, one-fifth of the participants preferred feedback from the instructor because it was more constructive and positive. This view was expressed by PT11.

[PT11]: I would prefer to get feedback from the instructor because it is more constructive and positive. It improved us. The feedback that I got from my peers was often in the form of criticism. Thus, it did not make a significant contribution to my work.

DISCUSSION AND CONCLUSION

Even though the participants' attempts to describe feedback focused on different dimensions of the concept, they tended to emphasize its formative function. Half of the prospective teachers described feedback as "positive or negative information about performance". This description is similar to that of Hattie and Timperley (2007), who described the concept as information from a variety of sources such as teachers, peers, books and parents about one's accomplishment (performance) and comprehension. This description is also similar to the definition proposed by Butler and Winne (1995). According to them, feedback is information about students' learning processes and performance. The prospective teachers who defined feedback as positive or negative information about performance did so without considering the fact that feedback could improve performance. Even so, slightly more than one-third of the prospective teachers described feedback as information that guides them to correct mistakes or deficiencies. This description, which emphasizes feedback as guidance, is similar to that of Panasuk and Lebaron (1999), who

considered feedback to be information provided for students about their performance and guidance for improvement. In addition, nearly one-third of the participants described feedback as information that points out mistakes and deficiencies, and several other participants described it as information about things done well. There were also some participants who described it as information that triggers in-depth thinking, thereby emphasizing its formative function. These definitions proposed by the prospective teachers correspond to Bloom's (1979) definition of feedback. In brief, three dimensions of feedback are emphasized both in the described by the prospective teachers and the definitions in the literature. Feedback attempts to describe performance, to give guidance if there is a discrepancy between the performance and the desired performance and to trigger in-depth thinking so that the assignment can be analyzed in different ways.

The prospective teachers identified some desired characteristics of feedback, which were grouped in the categories of function, objectivity, valence, tone, focus and intelligibility. According to the participants, feedback should have several descriptive functions such as offering guidance to correct mistakes or deficiencies, pointing out mistakes or deficiencies, providing new insights and giving specific rather than general advice. Only a few prospective teachers thought that feedback should endorse the positive aspects of an assignment, thus emphasizing its evaluative function. The participants highlighted the descriptive functions of feedback rather than its evaluative function, and they were aware that feedback could improve performance. It is stressed in the literature that feedback should be descriptive to be useful. Peterson and Irving (2007) maintain that feedback should endorse students' good ideas, add new pieces of information to them, correct their misconceptions and enable them to improve their performance. Similarly, Guven (2004) emphasizes that feedback should be informative rather than evaluative, focus on primary objectives when assessing student development and help students to identify and correct their misconceptions.

The prospective teachers said that the content of feedback should focus on observed behaviour or performance rather than personality, an idea that is consistent with the literature. According to William (1999), feedback has an adverse effect on performance when it focuses on the student's personality. Thus, feedback should focus on the students' performance rather than on their personality or character. Likewise, Dweck (2007) holds that feedback that focuses on students' personality will not be useful because it does not provide them with information to use with their assignments.

The prospective teachers reported that feedback should also be clear and intelligible. This idea is already stressed in the literature. According to Brookhard (2008), using complicated words or sentences to provide feedback reduces its intelligibility. Similarly, McKeachie (1998) and Weaver (2006) note that teacher feedback

should provide students with intelligible information that they can use to improve their work.

Objectivity was also considered by the prospective teachers to be another desired characteristic of feedback. In order to be reliable, feedback should definitely be objective. In other words, it should include objective information about the work of the person who receives it. Apparently, the prospective teachers were already aware of this characteristic of feedback.

The participants noted that feedback should also use constructive and positive language. This idea is consistent with research results and implications in the literature. Ilgen et al. (1979), Kluger and deNisi (1996) and Hattie and Timperley (2007) emphasize that teachers should make positive comments to describe performance. Brookhard (2008) states that it is wrong to find fault with students' assignments, to point out mistakes without offering advice on how they can be corrected or to punish or discredit them for what they have done. In other words, teachers should give students positive valence feedback. Bernichon et al. (2003) and Mesch at al. (1994) assert that negative feedback causes certain student reactions such as a defensive way of speaking, denial and reduced motivation, which, in turn, lead them to develop a sense of desperation, to have reduced self-confidence and less academic success. Hence, students should be provided with positive valence feedback that increases their intrinsic motivation and helps them to improve their performance (Brinko, 1990; Coe, 1998). According to Brinko (1990), if negative feedback must be given, it should be sandwiched between pieces of positive feedback.

In terms of strategy, one-tenth of the prospective teachers thought that feedback should convey detailed messages, an idea supported by the literature. Butler and Winne (1995), Kluger and deNisi (1996) and Hattie and Timperley (2007) maintain that teachers should highlight key points for students, emphasize points associated with primary learning objectives and estimate the proper amount of feedback appropriate for their developmental stage. Brookhard (2008) acknowledges that the purpose of feedback is to provide students with enough information to understand what they are supposed to do, thereby emphasizing the importance of the amount of feedback.

Although the timing of feedback is very important in formative assessment, only one of the teachers stated that feedback should be given right away to be effective. Butler and Winne (1995), Kluger and deNisi (1996) and Hattie and Timperley (2007) hold that feedback should be given when students are reflecting on the learning objective and still dealing with the topic or assignment. Similarly, Brookhard (2008) maintains that there is no point in grading assignments or providing feedback two or three weeks after a test or unit has been completed or when there is no opportunity for students to improve their performance. According to Kulik and Kulik (1998),

Swindell and Walls (1993) and Bangert-Drowns et al. (1991), just-in-time feedback has a significant effect on student achievement. In their study of senior-year prospective teachers teaching the mentally handicapped, Erbas and Yucesoy (2002) found that immediate feedback on student performance is more effective than delayed feedback. Given that only one of them reported that feedback should be given right away, the prospective teachers were not aware of the role played by the timing of feedback in student performance. The prospective teachers should be shown sample research results to inform them about the importance of the timing of feedback.

The views of the prospective teachers on the characteristics of the feedback provided by the instructor and their peers (Figures 3 and 4) suggest that the instructor gave descriptive feedback, whereas the feedback given by their peers was evaluative. Nearly all the participants reported that the instructor feedback offered guidance about how to correct mistakes or deficiencies, but the peer feedback lacked this characteristic. In other words, the peer feedback did not tell the participants how to correct their mistakes or deficiencies. In addition, the participants reported that the instructor feedback provided new insights and gave specific rather than general advice on their assignments (performance), but the peer feedback did neither. Furthermore, they reported that the instructor feedback focused on the positive and negative aspects of their assignments (performance) at the same time, but the peer feedback was only in the form of negative criticism. Whereas the instructor gave the participants specific advice, they were given general advices by their peers. Davies (2003) emphasizes that descriptive feedback provides students with clear information about the accuracy of their assignments and therefore supports their comprehension. Similarly, Gipps (1999) notes that such feedback focuses on student development and progress and explains the positive and negative aspects. In brief, the views of the participants suggest that the instructor feedback was useful. This is also supported by the data on the contributions of the instructor feedback to performance.

A considerable percentage of the participants reported that the instructor feedback was objective, used constructive and positive language and focused on behaviour rather than personality. However, this was only sometimes the case for the peer feedback. In addition, a quarter of the participants said that the feedback provided by their peers was not clear or intelligible, but only three of the participants reported that the instructor feedback was not clear or intelligible. This suggests that the peers had difficulty providing clear and intelligible feedback and that the instructor was sometimes unable to do so. Chanock (2000) demonstrated that there is a discrepancy between what students understand from a feedback message and what teachers mean. Therefore, the author

emphasized that teachers should explain very carefully what they mean in a feedback message and thus help students interpret it accurately. Higgins et al. (2002) revealed that students would like their teachers to provide feedback that can help them to understand what they are studying. All these findings indicate that both instructors and teachers should do their best to make their feedback clear and intelligible. In addition, prospective teachers should be informed about what should be considered when giving feedback. To do so, they should be shown sample research results or model feedback from their instructor or their peers.

One of the prospective teachers said that the peer feedback did not convey detailed messages. On the other hand, a quarter of them reported that the instructor feedback conveyed detailed messages, suggesting that the instructor took into account the key points and primary learning objectives when giving feedback. In other words, the instructor feedback included enough information to enable the participants to comprehend the message.

The views of the prospective teachers on the contributions of the instructor feedback and peer feedback to their performance (Figure 5) suggest that the former always made a positive contribution to their performance. The latter, however, sometimes made a positive contribution to their performance and sometimes did not. According to a large majority of the participants, the instructor feedback gave guidance and helped them to improve their assignments. Similarly, nearly half of the participants reported that the peer feedback enabled them to correct their mistakes or deficiencies and to improve their assignments, thus making a positive contribution to their performance. Two other contributions of the instructor feedback were that it enabled the prospective teachers to learn by doing and experiencing and to identify their mistakes or deficiencies. In addition, some participants reported that the instructor feedback improved their communication skills and their ability to use time efficiently and increased their motivation. The peer feedback, on the other hand, did not make any contribution to their performance according to a considerable number of the participants, since it did not offer guidance, gave general rather than specific advice or repeated what the instructor had already said. Several other prospective teachers thought that the peer feedback was not useful because it was not given right away, did not provide new insights into their assignments and came from peers who were not scientifically competent. In brief, the prospective teachers did not receive proper feedback on how to improve on their performance from their peers. The prospective teachers will certainly become more and more scientifically competent as they gain experience and knowledge. Even so, they should be informed that the timing of feedback is of vital importance, and they should be encouraged not to repeat instructor feedback but to provide new insights.

The preferences of the prospective teachers for receiving feedback (Figure 6) indicated that a considerable number of them preferred to get feedback from the instructor because the instructor feedback offered guidance, included objective information, pointed out mistakes and deficiencies, gave specific rather than general advice, used constructive and positive language and came from a more knowledgeable and experienced source. On the other hand, some participants reported that they would like to get feedback both from the instructor and their peers because this would provide an opportunity to spot deficiencies in assignments and provide new insights. The underlying reason why a considerable number of the participants preferred to get feedback only from the instructor was because peer assessment is not common or popular in the Turkish education system. The renewed curriculum proposes it as an alternative method. Therefore, efforts should be made to make sure that prospective teachers learn this method during their university education. The fact that prospective teachers don't give importance to peer feedback could stem from two reasons. First, peer feedback could not be used in previous education (elementary, middle and high school) of prospective teachers. Second, importance of peer feedback could not be emphasized enough in their undergraduate education while courses are taught by different instructors. To overcome this situation, students should be asked to give feedback to their peers and should be used and awareness about the fact that peer feedback is an essential component of learning process should be created.

The data of this study were collected using redesigning Mathematics Instruction I and II courses by author. Experiences of the author and results from previous research in the literature have been effective in the redesigning process. Findings of this study revealed significance of peer feedback for prospective teachers. Results of the study showed that it would be more appropriate to emphasize on peer feedback during course and to compare feedback of prospective teachers with instructor's feedback. It could be thought that this can improve prospective teachers' awareness towards significance of peer feedback. Thus, prospective teachers could actively use peer feedback when they will be teachers.

Conflict of Interests

The authors have not declared any conflict of interests.

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