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AN EVALUATION ABOUT TEACHER TRAINING PROGRAMS: FROM THE PERSPECTIVE OF PRESERVICE TEACHERS

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ABSTRACT: The aim of this study is to explain the preservice primary mathematics teachers' reasons of preferring this department and to define their opinions about mathematics and mathematics teaching lessons. For this reason it has been worked with 40 preservice teachers who are seniors at a state university's Department of Primary Mathematics Education. In this study, in which qualitative research approach has been applied, the data is gathered by a questionnaire form including open-ended questions. Preservice teachers are asked their reasons of choosing this department, their ideas about ideal university lecturers, their opinions about mathematics and mathematics teaching lessons, their suggestions about teaching process. The data gathered from the answer sheets has been analyzed by content analysis technique. Most of the students have chosen this department because of their love of mathematics. They have stated that they won't use mathematics lessons in their professional life but still mathematics lessons are important for thinking in mathematical way. On the other hand, they have stated that mathematics teaching lessons have got great importance in their professions.

Key words: Preservice primary mathematics teacher, mathematics lessons, mathematics teaching lessons

INTRODUCTION

One of the main items of education system is the teacher who is applier of the process. The training quality on professional view shows the quality of his/her teaching presentation (Seferoğlu, 2004). It can be seen that the preservice teachers take field courses and field teaching courses together with training courses. When investigating the literature on teacher training, it can be seen that the works on this subject are generally about school experiments but very less of them are about their ideas and opinions on university training programmes (Dursun&Kuzu, 2008; Tüfekçi Aslım, 2013; Sezgin Nartgün, 2008; Yıldırım, 2013; Eraslan, 2008; İnal&Büyükyavuz, 2013; Mete, 2013; Sarıtaş, 2007; Baştürk, 2011; Memduhoğlu&Topsakal, 2008, Eraslan, 2009). So, the aim of this work is to explain the preservice primary mathematics teachers' reasons of preferring this department and to define their opinions about mathematics and mathematics teaching lessons

METHODOLOGY

Preservice teachers are asked to evaluate their university education. So, the research which has been held with the qualitative methodology is a survey study. Survey study is an approach that aims describing a state as it is and collecting detailed data (Karasar, 2006).

Participants

This research has been applied to 40 seniors at Department of Primary Mathematics Education of a state university. It is applied to seniors because the students need to take all the lessons, the mathematics lessons and the formation lessons in order to make correct evaluations.

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Instruments

The data has been gathered by a questionnaire form consisting open-ended questions. The questions asked to the participants are classified under the title of participants’ reasons of choosing the Department of Primary Mathematics Education, the qualities of ideal lecturers, opinions about mathematics lessons and mathematics teaching lessons, suggestions about the process.

Analysis of data

The data have been analyzed using the content analysis technique of qualitative research method. The answers of the preservice teachers have been categorized as preference reasons of their department, their opinions about an ideal lecturer, their opinions about mathematics lessons and mathematics teaching lessons, their suggestions about the process. NVivo 8 programme has been used on analyzing data. The programme gave the opportunity of being close to the data and revising-arranging the categories (Kuş, 2007). The analysis of the data has been held by two researchers on this field at the same time. There has been a consensus on the codes and the categories formed.

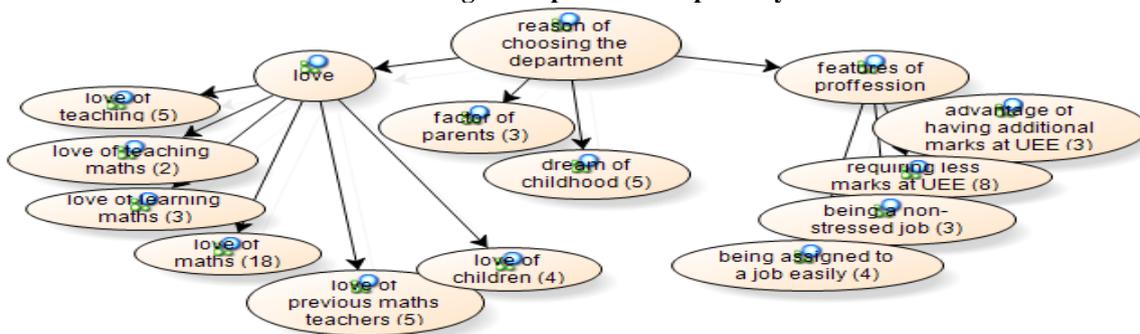
FINDINGS

The answers given to the questions by the preservice teachers have been categorized under 5 titles. Each category will be examined by a model and citations of participants will take place in this part of the research. Frequencies of each category are given together with models in parentheses.

Preservice Teachers’ Reasons Of Choosing Department Of Primary Mathematics Education

We can find 4 sub-categories under the category of “reasons of choosing Teaching Mathematics”. These 4 sub-categories can be gathered under these subtitles: love [love of teaching (5 participants), love of teaching maths (2), love of learning maths (3), love of maths (18), love of previous maths teacher (5), love of children (4)], factor of parents (3), dream of childhood (5), features of profession [(advantage of having additional marks at university entrance exam (3), requiring less mark at university entrance exam (8), being a non-stressed job (3), having a job easily (4)]

Model 1: The reasons of choosing the department of primary mathematics education



Some quotes of preservice teachers:

Preservice Teacher (PT) 31: *Primarily, I love mathematics; I believe teaching mathematics is more exciting than understanding it...*

PT 33: *I wanted to be secondary mathematics teacher but my father wanted me to be primary mathematics teacher. Both include mathematics so it doesn't matter which one.*

PT14: *My main goal was pharmacy but the mark I had at the university entrance exam was equal to primary mathematic teaching...*

Most of the participants chose the primary mathematics education because they love mathematics. As expressed on PT 31, some chose this department because they both love mathematics and teaching mathematics. When examining the model, reasons that made them choose the primary mathematics education are the love of being

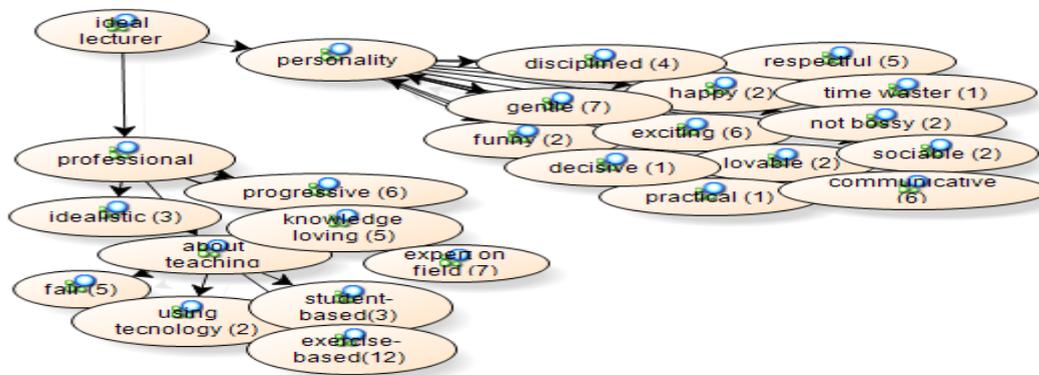
teacher, the love of teaching mathematics, the love for their own mathematics teachers and being the their childhood dream.

Also we can say that parents are effective in choosing this department when examining the answers. PT 33’s answer supports this conclusion. Some participants state that this job was their dream. As PT14 says, there are students who chose this department depending on their results of the university exam. In addition, there are preservice teachers who chose this department because of having additional point advantages, being an easy job for women and being easy to be assigned.

Opinions About Ideal University Lecturers

When examining the answers, we formed 2 sub-categories for “opinions about ideal university lecturers”. they are: personality [(disciplined (4 participants), respectful(5), time waster (1), communicative (6), gentle (7), happy (2), not bossy (2), practical (1), funny (2),exciting (6), lovable (2), sociable (2), decisive (1)] and professional [(progressive (6), idealistic (3), knowledge loving (5), expert on field (7); about teaching: fair (5), using technology(2), student-based (3), exercise-based (12)]

Model 2: Opinions about ideal university lecturers



Some quotes of the preservice teachers:

PT 7: *First of all I want to communicate with a lecturer...We can't keep in touch with lecturers, we can't even ask questions... Yes, they should be disciplined but I must feel that I'm important too.*

PT 24: *...Lecturers should be well equipped and I should use what I have learnt... I think, lecturers should be equipped with mathematical knowledge.*

PT 29: *I thought that I will be a mathematician and I will participate the mathematical proofs when I came to this department. So, our lecturers should provide this...*

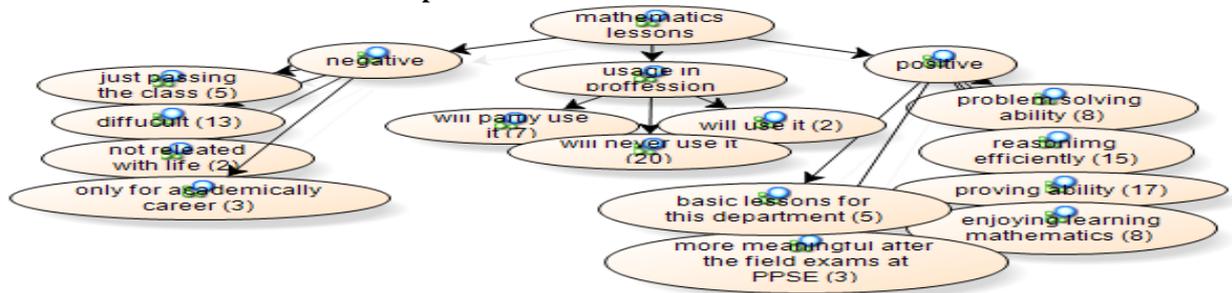
As we can see, an ideal lecturer should spend time to students, communicate with them and also love them, gentle and also disciplined, respectful, happy, not bossy, practical, funny, exciting, social and decisive. PT7’s answer supports this finding. On the other hand, preservice teachers have stated that an ideal lecturer should be an expert on his/her field, progressive, idealistic, learner based, should let students apply what they have learnt, should be technology user and fair. As stated by PT 24 and PT 29, a lecturer should be well equipped with mathematical knowledge and should be progressive on his/her field. As understood from the frequencies of the categories, the participants have given more importance to professional qualities. According to this finding a lecturer is the one who is full of mathematical knowledge and continuously worker on progressing his/her knowledge.

Opinions About The Mathematics Lessons

We have created 3 sub-categories for the category of “Opinions about the mathematics lessons” after analyzing the preservice teachers’ answers. These categories are: negative [(just passing the class (5 participants), difficult (13), not related with real life (2), only for academically career (3)]; positive [(problem solving ability (8),

proving ability (17), reasoning efficiently (15), enjoying learning mathematics (8), more meaningful after the field exams at “public personnel selection exam” (3), basic lessons for this department (5) and usage in profession [(will use it (2), will never use it (20), will partly use it (7)].

Model 3: Opinions about the mathematics lessons



Quotes of some preservice teachers:

PT 7: *I still can't understand analysis and differential equations and can't solve them. How can I use them in my professional life? This is faculty of education, not engineering or science...*

PT 15: *I'm thankful to my lecturers but I don't think I will apply these lessons at my professional life. I think those who have academically goals should take these lessons and us who want to teach mathematics at village should not take so much difficult lessons...*

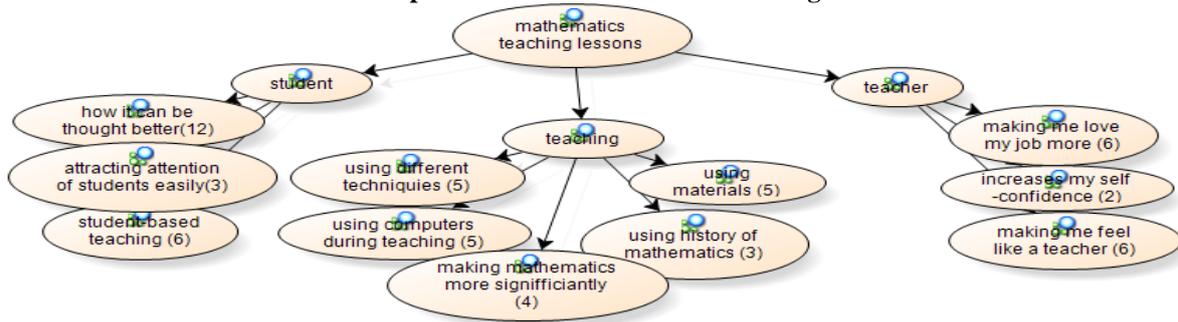
PT 27: *Surely, my mathematical perspective has developed here with these lessons but I don't think I'm going to use this knowledge in my professional life. For example, it's obvious that I'm not going to say "you can memorize more easily if you take it's integral according to $\ln x$ " to a student who has problem in memorizing time table.*

As seen on the model, preservice teachers state that the mathematics lessons have made them think more analytically, made them understand the basis of mathematical expressions, and enjoying dealing with mathematics and they state that they give more importance to these field classes after the PPSE Field Exam. PT 27's answer supports this finding. On the other hand, most of the participants state that they take these lessons just to pass to next grade, that the lessons aren't related with daily life and that the contents of the lessons are so difficult that they can't apply them on their professional teaching process. PT 7, PT 15 and PT 32 have expressed this finding at their citations. However, while two participants say that they will use this knowledge in his/her teaching process, 20 of the participants state that they won't use this knowledge in professional teaching process.

Opinions About Mathematics Teaching Lessons

We have created 3 sub-categories for the category of “Opinions about mathematics teaching lessons” after analyzing preservice teachers' answers. These are: student [(how it can be taught better (12 participants), attracting attention of students easily (3), student-based teaching(6)], teaching [(using different techniques (5), using computers during teaching (3), making mathematics more significantly (4), using history of mathematics (3), using materials (5)], teacher [(making me feel like a teacher (6), making me love my job more (6), increases my self-confidence (2)].

Model 4: Opinions about mathematics teaching lessons



Some citations of preservice teachers:

PT 32: *I need to know how to teach the expression of “minus times minus equals to plus”...*

PT 18: *These lessons were about “how to teach”...also, these lessons made me feel like a teacher, I realized that I can teach with pleasure...*

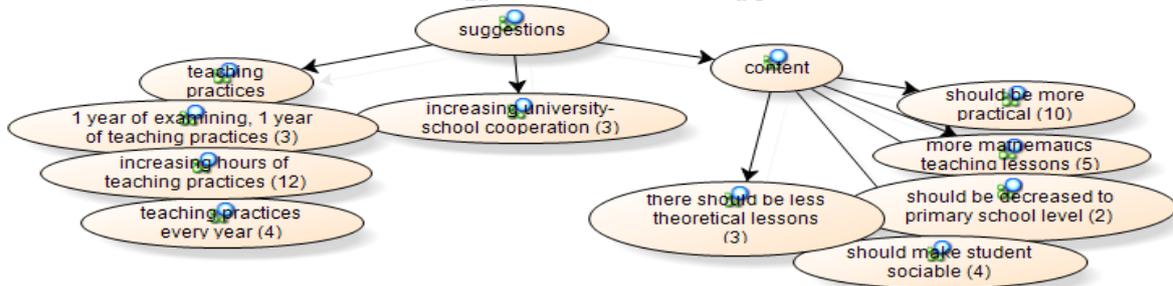
PT 34: *These are the only lessons that I’m fond of and useful for me. Because the content of our professional life went into shape by these lessons. Thanks to these lessons, we have learnt how to teach, how our students can learn better, what mistakes our students can make...*

As we can see on the model, preservice teachers stated that their self-confidence has shown up and that they love their profession more with the help of mathematics teaching lessons. In addition, with the help of these lessons they state that they have learnt to teach the way they learn themselves, to use the appropriate material, to make mathematics more abstractive, to attract their students’ focus and to be student-based. We can support these findings with the citations above.

Suggestions On The Teaching Process

There are 3 sub-categories under the category of “suggests on the teaching process”. They are: teaching practices[(1 year of examining, 1 year of teaching practices (3 participants), increasing hours of teaching practices (12), teaching practices every year (4)]; increasing university-school cooperation (3); content [(should be more practical (10), should be decreased to primary school level (2), there should be less theoretical lessons (3), should make student sociable (4), more mathematics teaching lessons (5)].

Model 4: Suggestions on the teaching process



Quotes of some of preservice teachers:

PT 32: *Instead of making students tired of theoretical lessons and making them dislike their job, you should teach them what being a teacher means and how to be a better teacher. Because limits, integral or derivatives don’t solve the problems of primary school students.*

As we can see on the model, preservice teachers want more mathematics teaching lessons in order to be a better teacher. PT 32's answer supports this outcome.

CONCLUSION

The preservice primary mathematics teachers' opinions about the reasons of choosing this department, about the mathematics lessons, about mathematics teaching lessons, about an ideal university lecturer and the suggestions about the teaching process are determined in this study. As stated before, it can be seen that love of (mathematics, mathematics teaching, eg.) is the most important reason in choosing this department. Most of the students have chosen this department because they love mathematics. The features of working as a mathematics teacher have been a reason of choosing the department too.

The students have focused on the professional side of an ideal lecturer more. On their view, a lecturer is well equipped, hardworking and contributing. They expressed that they will not use knowledge they gained at the mathematics lessons, though these lessons have improved their mathematical background. They told that mathematics teaching lessons have great importance in their professional life and they have gained self-confidence thanks to these lessons. The preservice teachers have suggested that teacher training lessons should be increased and mathematics teaching lessons should take more places instead of mathematics lessons.

SUGGESTION

When paying attention to preservice teachers' thoughts, some precautions can be created to make mathematics lessons to be more meaningful for students. For example, we can try to make students get rid of the idea of "these lessons are not useful" by real-life teaching techniques and telling them how to apply these knowledge in their professional life. We can provide the class environment of using what they have learnt previously and the environment of actively participating during the lessons. Also we can give the opportunity of doing more teaching practices by letting them teach more.

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