

PHYSICS CANDIDATE TEACHERS' REASONS FOR CHOOSING ACADEMIC DEPARTMENTS, ORDER OF THEIR PREFERENCES AND IDEAS ABOUT FUTURE

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ABSTRACT

The aim of this study is to determine recently enrolled prospective teachers' reasons for choosing physics education department, whether they think of working as a physics teacher and reasons for working or not working as a physics teacher. In addition, it is aimed to reveal prospective teachers' sex, age, type of graduated high school, undergraduate placement (LYS) scores, made preferences and list of their preferences. In order to achieve this aim, 21 students, who deserved to be enrolled to physics education program at Balıkesir University, Necatibey Faculty of Education in the academic term of 2011-2012, were asked to fill in "Reasons for Preferences about Teacher Education Department Questionnaire". Some data obtained from the questionnaire, which consists of 10 questions, have been presented with tables of frequency analysis while the other data related to open ended questions have been examined by using content analysis. Analysis results show that majority of students (66.67%) are graduated from general high schools and have a wide range of scores (differentiates between 233 and 246) obtained from LYS exam. All prospective teachers were found to choose different number of physics education programs ranging from zero to five. Additionally, most of the prospective teachers (85.71%) indicated that they would work as a physics teacher. Reasons for preferences and doing teaching job are presented in tables by categorising in distinctive thematic headings.

Key words: Physics candidate teacher.

INTRODUCTION

Communities' development and sustainability of their existence can be only achieved by raising qualified individuals. The educational institutions play the most important role in raising qualified individuals. That is the reason why curriculums change in keeping with the modern age permanently. As a result, secondary physics curriculum has been gradually regulated since 2007. In order to be able to get efficiency from the curriculum that adopted constructivist education, the curriculum should be applied actively (Tataroğlu, Özgen and Altan, 2011). Considering the fact that teacher is the most important component of education system and only qualified teachers can give qualified training (Kavcar, 2002), it is essential to train well equipped teachers in order to attain new curriculum's aim (Kılıç and Saruhan, 2006). In this case, the first question that comes to mind is "Which qualifications should a teacher have?" When the studies that are conducted in this field are analyzed, teacher efficiency criteria is evaluated as follows: objectives, methods and techniques that suit target behavior, suitable usage of materials, choice and facture of materials, initiating the lesson properly, draw attention and interest to the lesson, preparing democratic learning environment, being able to use the behavior of praise and attitude, listen students with interest etc (Şeker, Deniz and Görkem, 2005). Before having these criteria, teacher candidates should have positive attitudes for their professions in order to give the intended qualified education. In studies focusing on this dimension, it is seen that generally faculty of education students have positive viewpoints for teaching profession.

Pehlivan (2008), at one of her studies which is carried out by 592 primary school teaching students, stated that best part of teachers' attitudes for teaching profession are at a high level. Terzi and Tezci (2007) have carried out an attitude scale with 645 students from different teacher education programs. In respect of research results, it is seen that attitudes of teacher candidates for teaching profession is positive and at a high level. Similar results are revealed at the studies based on different samples (Buluç, 2002; Saracaloğlu et. all, 2004; Aslan, Köksal and Akyol, 2006). Akpınar, Yıldız and Ergin (2006) have examined attitudes for teaching profession with 300 science teacher candidates according to variables as their class level, gender, order of preference of teaching profession and whether there is a teacher in their family or not. In view of research results, it is seen that teacher candidates generally show interest to teaching profession. Also, it is defined that teacher candidates who preferred teacher profession in their first three choices have higher attitude scores than others who preferred it in lower rows. Furthermore, in this study, it is observed that female teacher candidates have a more positive attitude for teaching profession than male teacher candidates. In a similar study, Tanel, Şengören and Tanel (2007) have examined attitudes for teaching profession with 160 physics teacher candidates according to variables as: gender, class type, order of preference, high school type, whether there is a teacher in their family or not and their mother's and father's educational background. In consequence of the research results, only a significant difference is found about attitude between class levels of teacher candidates. Considering the information obtained from the study, a relationship could not be found between order of preferences and attitudes.

Boz and Boz (2008) have made a research with 38 chemistry and mathematics teacher candidates about the reasons of being a teacher According to the research results, while preferring teacher profession, the primary reasons are as follows: being effected by their own teacher, being interested in chemistry and mathematics, being interested in transferring knowledge and being forced to prefer these departments. Tataroğlu, Özgen and Alkan (2011) have made a study with 33 mathematics teacher candidates and have examined their reasons for preference of teacher profession and their expectations. In this study, the reasons of teacher candidates for preference of teacher profession have been ordered as follows: interest and sympathy to mathematics and geometry, thought of suitability to his/her character, not being able to settle into other departments, getting a score only enough for mathematics teacher profession, taking his/her own mathematics teacher and mathematicians as a model and lastly environmental and familial factors. Çevik and Yiğit (2009) have studied with 300 teacher candidates who are from different departments of education faculty. In this study, teacher candidates' reasons for preference of teaching profession are stated as follows: being interested in teaching profession, accessible scores of their departments, having high employment possibility.

When all these studies are examined, it is seen that the attitude studies for teaching profession are more than the studies about the reasons for being a teacher in number. Particularly, it is seen that there is not a special study which investigates why physics teacher candidates wants to be a physics teacher. Therefore, the aim of this study is to determine why physics teacher candidates wants to be a physics teacher and whether they want to work as a physics teacher or not, with its reasons.

METHODOLOGY

In this study, survey method is used for determining situation (Büyüköztürk, Çakmak, Akgün, Karadeniz and Demirel, 2009).

Sample

Sample of the study is composed of 21 teacher candidates who studies at the first class of Physics Education program at Secondary Science and Mathematics Education Department of Necatibey Education Faculty at Balıkesir University. Eleven (%52.38) teacher candidates involved in the sample are male and ten (%47.62) teacher candidates involved in the sample are female. MF-2 score type of teacher candidates varies from 233 to 346 in LYS exam and they are between the ages of 18 – 35 and the average age of the group is 19.52.

Data Collection Tool

“Reasons for Preferences about Teacher Education Department Questionnaire” was developed as data collection tool in this research. The questionnaire consists of two parts. In the first part, in order to record the personal information of teacher candidates, there are questions as follows: high school type, number of taking LYS exam, number of preferences about teacher profession and the order of settled department in preferences. In the second part, there are two open-ended questions. The first question is; “What is your reason for preferring teacher profession?” and the second question is; “Do you think working as a physics teacher when you graduate from this department? Why?”. After the questionnaire was formed, it was examined by two physics education specialist except the researchers. In line with estimation of specialists, “Reasons for Preferences about Teacher Education Department Questionnaire” has taken its final form.

Data Analysis

Frequency tables are formed for the questions involved in the first part of the questionnaire. On the other hand, for the second part of the questionnaire, the responses of open ended questions are categorized with content analysis and the responses are tabulated according to their frequency distribution. Due to the fact that some responses can be included in more than one category, it is found that frequency number of the responses is farther than the sample size.

RESULTS

1) Findings for the first part of Reasons for Preferences about Teacher Education Department Questionnaire

In this section, information about students’ high school types, how many times the students took the LYS exam in order to get right for enrolling this department, the number of preferences related with teacher profession and physics teacher profession and which preference they settled into has been presented.

High school types of the students involved in the sample and the frequency distribution according to these schools are shown in Table 1.

Table 1: High school types of the teacher candidates involved in the sample and the frequency distribution according to these schools.

High School Type	The number of Teacher Candidates	Frequency (%)
Regular High School	14	66.67
Vocational High School	5	23.81
Anatolian High School	1	4.76
Anatolian Teacher High School	1	4.76
Total	21	100

66.67 percent of teacher candidates who got into physics education department are Regular High School graduate, 23.81 percent of them are Vocational High School graduate, 4.76 percent of them are Anatolian High School graduate and 4.76 percent of them are Anatolian Teacher High School graduate. 12 of these candidates got into these departments at the first run, 8 of them got into at second run and 1 of them got into at third run in LYS exam.

According to LYS exam results, number of preferred teacher education department and number of preferred physics education department of candidates who have right to prefer 30 departments and the order of department which they settled into among their other preferences are presented in Table 2.

Table 2: Number of Preferred Teacher Education Department and Number of Preferred Physics Education Department of Students Who Are Involved in the Sample and Order of Department They Settled Into.

Preferences of Teacher Candidates	Number of Preference	Number of Teacher Candidates	Frequency(%)
Number of preferred teacher education departments	1-5	12	57.14
	6-10	4	19.05
	11-15	3	14.29
	16-20	1	4.76
	21-25	-	-
	26-30	1	4.76
Number of preferred physics education department	1-5	21	100
Order of department they settled into	1-5	10	47.62
	6-10	8	38.10
	11-15	2	9.52
	16-20	-	-
	21-25	-	-
	26-30	1	4.76

As it is seen in Table 2, 12 of teacher candidates (%57.14) preferred teacher education department between their first and fifth preferences, 4 candidates (%19.05) preferred it between their sixth and tenth preferences, 3 candidates (%14.29) preferred it between their eleventh and fifteenth preferences, 1 candidate preferred it between his/her sixteenth and twentieth preferences and another candidate preferred it between his/her twentieth and thirtieth preferences. All teacher candidates preferred physics education department between first and fifth preferences. Furthermore, when we examine the order of preference of settled department, it is seen that 10 of teacher candidates (%47.62) have settled into their first five preferences, 8 of them (%38.10) have settled between their sixth and tenth preferences and 1 of them (%4.76) has been settled between his/her last five preferences.

2) Findings for the second part of Reasons for Preferences about Teacher Education Department Questionnaire

In this section, the results about students' reasons for preferences about physics education department and whether they want to work as a physics teacher or not after they graduated are stated in Table 3. Teacher candidates' reasons for preferences about physics education department and frequency distribution are outlined in Table 3.

Table 3: Teacher Candidates' Reasons for Preferences about Physics Education Department and Frequency Distribution.

Teacher candidates' reasons for preferences about physics education department	Teacher Candidate's Code	Number of Teacher Candidates	Frequency (%)
Teacher candidate's interest to physics lesson	1, 2, 6, 7, 8, 9, 14, 15, 16, 18	10	47.62
Sufficiency of teacher candidate's score for his department	1, 4, 7, 12, 20, 21	6	28.57
Teacher candidate's guidance by family, teacher or etc.	3, 6, 13, 19, 21	5	23.81
Teacher candidate's love to teacher profession	6, 10, 14, 18	4	19.05
The advantages of physics education department (low tuition fee, tutoring opportunity after graduation, the fact that the department is a part of education faculty)	1, 2, 5, 16	4	19.05
Teacher candidate's primary success in physics lesson	2, 11, 16	3	14.29
The city of university and its physics education department	1, 19	2	9.52

In Table 3, 10 of teacher candidates (%47.62) responded that they preferred this department because of their love and interest to physics. On the other hand, 6 of teacher candidates (%28.57) stated that their score from LYS exam was only enough for this department and they could not settle into another department. From this point of view, one of teacher candidates mentioned about his/her reason as below:

T.C.7 : *“I like physics lesson and also I have written this department among my preferences because of the fact that my LYS exam score was low”.*

In Table 3, 5 teacher candidates (%23.81) wrote that their preference is effected by their family or teacher guidance, 4 teacher candidates (%19.05) wrote that they love teacher profession as the reason for their preferences. From this point of view, one of teacher candidates mentioned about his/her reason for preferring physics education department as below:

T.C.6: *“...my cousin advised me to prefer physics education department. Being a physics teacher is my dream. I’m sure that I will take this education voluntarily.*

According to the results stated in Table 3, as the reasons for preferences, 4 teacher candidates (%19.05) said that there were some advantages to prefer this department. As the reason for their preference, 3 teacher candidates (% 14.29) told that they are successful in physics. From this point of view, one of teacher candidates mentioned about his/her opinion as below:

T.C.2: *“I preferred physics education department because I will get tutoring opportunity. I can say that physics is the only lesson that I am successful at.*

In Table 4, the results about whether teacher candidates want to work as a physics teacher or not after they graduated and their reasons are stated.

Table 4: The Results about Whether Teacher Candidates (Involved in The Sample) Want to Work as a Physics Teacher or not After They Graduated and Their Reasons.

Type of Answer	Number of Teacher Candidates	Teacher Candidates’ reasons for working or not working as a physics teacher	Teacher Candidate’s Code	Number of Teacher Candidates	Frequency (%)
Yes	18	Thoughts of teacher candidates about teacher profession’s suitability for themselves and their love to it.	6, 10, 14, 16, 17	5	23.81
		The case that Physics Education Department is a part of Education Faculty	3, 8, 9, 12, 13	5	23.81
		Wish of teacher candidates about getting students love physics.	14, 15, 17	3	14.29
		Case of getting economic income if teacher candidate works as a physics teacher	11, 21	2	9.52
		Wish of teacher candidates about transferring their knowledge	7, 21	2	9.52
		There is no reason that is stated	2, 4, 5, 18	4	19.05
No	3	Wish of teacher candidate about doing a different job	19, 20	2	9.52
		Wish of teacher candidate about working as a teacher in a different branch	1	1	4.76

18 of teacher candidates (%85.71) stated that they think working as a physics teacher after they graduated. On the other hand, 3 of teacher candidates (%14.29) said that they do not think working as a physics teacher after they graduate.

5 of teacher candidates (%23.81) who plan to work as a physics teacher stated that working as a teacher is a suitable job for themselves. 5 of teacher candidates stated that they want to do this job because of the fact that they will be graduated from education faculty. 3 of teacher candidates (%14.29) stated that they want to do this job in order to get students love physics. 2 of teacher candidates stated that they want to do this job because of financial reasons and 2 of teacher candidates stated that they want to do this job because they want to transfer their knowledge. The last two reasons' percentage is 9.52%. 4 of teacher candidates (%19.05) stated that they want to do this job without pointing out any reason for this response.

2 of 3 teacher candidates (%9.52) who do not want to work as a physics teacher said that they want to do a different job. On the other hand, 1 of teacher candidates stated that he/she wants to work as a teacher at primary or university level.

CONCLUSION AND DISCUSSION

When the number of students who preferred physics education department is examined according to their school types, it is seen that largely regular high school and vocational high school students prefer physics education department. This result shows parallelism with the studies of Kızılcıoğlu (2003) with Çevik and Yiğit (2009) who had larger samples in their studies. Graduates of Anatolian High School and Anatolian Teacher High School do not prefer this department and this case can be the result of physics education department's low scores.

The large part of students involved in the sample (%57.14) used maximum 5 department preference rights for teaching profession among their 30 department preference rights. The reason of the case that students preferred teacher profession less can be the result of limited teacher assignments. This case shows that students have to prefer teacher profession in a limited number at MF 2 score type. However it is seen that among these limited teacher profession preferences, physics education department is in the forefront. 90.48 percent of teacher candidates have settled into one of their first 10 preferences. On the other hand, in their study, Çevik and Yiğit (2009) told that 65.30 percent of teacher candidates have settled into one of their first 9 preferences. The case that teacher candidates have settled into one of their first 10 preferences can be interpreted in the way that they prefer this department voluntarily. In the research, teacher candidates told about their keen interest to physics (% 47.62) and their love to teaching profession (%19.05) as two reasons for preference about physics education department. This case supports the result mentioned above.

When teacher candidates' reasons for preferences about physics education department are examined, these reasons are respectively as follows: their interest to physics, the fact that their score is sufficient for only this department, being directed by their family or teachers, their love to teaching profession, thinking that physics education department have various advantages, being good at physics lesson and the fact that they want to go to a university because of its city (Tataroğlu, Özgen and Alkan, 2011).

A large part of physics teacher candidates (%85.71) said that they want to work as a physics teacher after they graduated. When the reasons of teacher candidates for being eager to work are examined, the reasons are listed respectively as follows: thoughts of teacher candidates about teacher profession's suitability for themselves, the case that physics education department is a part of education faculty, wish of teacher candidates about getting students love physics, the case of getting economic income if teacher candidate works as a physics teacher, wish of teacher candidates about transferring their knowledge. When the teacher candidates' reasons for thinking not to work are examined, the reasons are listed as follows: wish of teacher candidates about doing a different job and wish of a teacher candidate about working as a teacher in a different branch.

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