



## A NEEDS ASSESSMENT FOR GRADUATE PROGRAMS IN EDUCATION FACULTIES

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### Abstract

The purpose of this study was to discover the needs of graduate students. In graduate programs, the courses may not be in sufficient numbers; satisfy students' interest; and contribute to their area of expertise. As a result, graduate students may take irrelevant courses from other departments to complete their course requirements. In this study, needs assessment was conducted to bring out graduate students' views on courses that education faculty offers. More specifically their thoughts about diversity of elective courses; appropriateness of course content; and adequacy of course materials were investigated. In the study quantitative method was used. The sample included 39 graduate students in one of the well-known faculty of education in Turkey. The results highlighted several areas of special attention. These areas are as follows; difficulty in finding elective courses in their departments, courses being unrelated to the students' interest areas, workload of the courses.

**Key Words:** Needs assessment, faculty of education, graduate students.

### INTRODUCTION

Hurd (1958) emphasized the rapid developments in science and technology and questioned whether children were getting adequate education which will provide them necessary knowledge and skills to take place in a society full of scientific and technological developments. It was more than half century ago and the same concern still exist. Most of the researchers and authorities in the field of education have focused on the same issue and they have filled important gaps about this issue. However they gave little attention to teacher education especially to the graduate programs in education faculties. Teacher education is crucial because teachers are the core elements of education. If the teachers are good at teaching their subject areas, then the children will possibly get adequate and high quality education. Teacher candidates can go one step further when they finished the undergraduate programs. They can enroll in graduate programs to be better equipped with knowledge and skills for teaching and doing research. Herein, one of main issue to be considered is the quality of the graduate programs in education faculties. There is a common assumption about graduate programs in teacher education programs. It is often believed that teacher educators who fulfilled the requirements of doctoral programs are equipped with the necessary knowledge and skills for doing research (Lin, Wang, Spalding, Klecka, & Odell, 2011). Lin et al. (2011) stated that the results of those teacher educators' academic effort were also believed to be functional for informing teaching practice, teacher education, and policies. On the other hand, as Lin et al. (2011) emphasized, the academic work of educational researchers are generally found to be weak. Of that issue, one of the prominent is about the courses offered in the doctoral



programs. Therefore; this study aims to reveal the needs of graduate students while taking courses during doctoral program in the faculty of education at a university in Turkey.

### **The Significance of Training Teacher Educators-Researchers**

“There is an emerging consensus that the perceived lack of quality in education research stems from problems with doctoral preparation and that improving doctoral education is key to improving education research” (Boote & Beile, 2005, p. 4). The insufficient preparation in doctoral programs may result in shortcomings in education research. The common assumption that the doctoral programs are for learning about research leads to the understanding that the focus of doctoral programs should be on methodological and research issues rather than core of education knowledge (Boote & Beile, 2005). Being expert in specific education knowledge is as important as being expert in methodology and research issues. “Researchers must understand prior research in their field, and its strengths and weaknesses, before they can be expected to choose appropriate methods of data collection and data analysis. Moreover, sophisticated methods of data collection and analysis are of little use if one is studying an unproductive problem” (Boote & Beile, 2005, p. 12). Researchers in education should place enough emphasis on learning about research and learning to do research. For this purpose, apprenticeship is the most common model used in doctoral programs (Weiland, 2008). According to apprenticeship model, doctoral students take many courses related to research paradigms, methodological issues and statistics with the aim of learning about research (Lin et al., 2011). In order to learn how to conduct research, they are involved in a research project mostly under the guidance of a professor (Lin et al., 2011). Being involved in research projects either individually or as a team is the keystone of training highly-qualified and highly-motivated doctoral students. However, students who decided to pursue an academic career should first complete several basic courses in graduate programs so that they can learn the research process more effectively.

In Turkey, the universities which offer graduate programs in education also use similar apprenticeship model. They also provide courses and research opportunities for graduate students. The research opportunities provided are not within the aim of this study. This study concentrated on investigating the needs of graduate students in terms of courses offered in their master or doctorate programs. The next section describes the research design, setting, participants, and instruments in details.

## **METHODOLOGY**

### **Research Design, Setting, and Participants**

The faculty of education where this study was conducted offers research-focused master and doctoral programs in several major areas such as elementary science and mathematics education, elementary education, early childhood education and secondary science and mathematics education. Faculty mostly accepts graduate students who completed the same undergraduate program. Students first may register for master programs and then enter doctoral programs or they may directly apply for doctoral programs without writing a master’s thesis (integrated PhD program). A portion of the students who completed the requirements of master programs registers for doctoral programs while some of them do not. The ones who enrolled in doctoral programs generally become a teacher educator and a researcher in future. A small number of them continue to their career as a teacher. The graduate programs (master and doctoral programs), offer courses about research, methodological issues, statistics for educational research and some topic-specific elective courses. In this study, a quantitative-based needs assessment procedure was used to establish the needs of graduate students in terms of courses offered during their graduate programs including master and doctorate level. The study was conducted in one of the major university in Turkey. Convenient sampling was used to draw the sample. “A convenience sample is a group of individuals who (conveniently) are available for study” (Fraenkel & Wallen, 2006, p. 100). The sample included 39 graduate students registered one of the graduate programs in the faculty of education. 29 of them were female while 10 of them were male. Of these, 8 were master level and 31 were doctorate level. According to their majors, the distribution of the participants were as follows: Elementary Mathematics Education (3), Early Childhood Education (5), Elementary Science Education (10), Others (21) (including Secondary Science and Mathematics Education, and Educational Sciences). The demographic information of the participants is given in Table 1.

Table 1: Demographic information of the sample

Demographics		Frequency	Percentage
<i>Gender</i>	Female	29	74.4
	Male	10	25.6
<i>Registered Program</i>	Master	8	20.5
	Doctorate	31	79.5
<i>Department</i>	Elementary Mathematics Education	3	7.7
	Early Childhood Education	5	12.8
	Elementary Science Education	10	25.6
	Other	21	53.8

### Instruments and Data Collection

In this study the needs assessment committee (NAC) primarily consisted of two researchers. Moreover ten graduate students and another researcher pointed out their critique while constructing the questionnaire. They were also the part of whole needs assessment committee. Based on prior experiences and critical observation of graduate programs, a draft questionnaire was developed by the researchers. In order to validate the instrument, it was presented to ten graduate students and an independent researcher. After getting their views, the questionnaire was redesigned. Eventually the last form of the questionnaire was prepared by the researcher. The reliability of the instrument was measured by Cronbach's alpha which was found to be .86. This value is above .7, so the questions used in this test can be considered reliable with the sample.

The questionnaire consisted of two parts. In the first part, the participants were asked to provide demographic information (i.e. gender, registered program, and department). In the second part, there were items about the quantity of the course, content of the courses, and workloads of the course. This part consisted of 15 items and asked about the participants' level of agreement about each item by using a 5-point Likert scale. The scale was ranging from 1 (never) to 5 (always). Below are the items in the instrument.

*Item 1: I have difficulty in finding elective courses in my department.*

*Item 2: The number of courses is adequate in my area of study.*

*Item 3: The contents of the courses I have got so far were convenient for my area of interest.*

*Item 4: The elective courses that I have got so far were satisfactory to develop myself*

*Item 5: Graduate courses satisfy my prior expectations*

*Item 6: I can use the courses that I have got so far in future*

*Item 7: The courses that I have got so far enabled self-improvement*

*Item 8: I have found answers to the questions that I curious about in graduate courses*

*Item 9: I can give lesson that is similar to ones that I got so far in future.*

*Item 10: The courses gave me chance to argument my idea*

*Item 11: The workload of the lesson were appropriate*

*Item 12: Additional materials were sufficient*

*Item 13: The numbers of students in classes were appropriate*

*Item 14: The supplementary material (e.g. books) of the courses were adequate*

*Item 15: The names of the courses were consistent with its content.*

### Data Analysis

Statistical analysis software SPSS 15 and Microsoft (MS) Excel 2007 were used for data analysis processes. Fortunately, there were no missing or incomplete data in the sample. Since the main purpose of this study was to investigate the views of graduate students' on the courses they took, descriptive statistics such as frequency, percentage, mean, and standard deviation were calculated using SPSS while the total score from each item were calculated using MS Excel program. In this stage one point is worth to mention which is related to the item recoding. In the last part while computing total scores, mean scores, and standard deviations of the items, except the first item, all items were positive statement therefore, before conducting statistics analysis, the first

item was recoded as 1 to 5, 2 to 4, 4 to 2 and 5 to 1 to enable a better and clear results. Lastly, the results are tabulated in the order of total scores and mean scores from highest to lowest to see urgent needs of graduate students.

## RESULTS

The purpose of this study was to investigate the needs of graduate students in terms of courses offered by faculty of education. Findings were summarized in Table 2.

Table 2: Frequency Table

	Never		Seldom		Sometimes		Frequently		Always	
	<i>f</i>	(%)	<i>f</i>	(%)	<i>f</i>	(%)	<i>f</i>	(%)	<i>f</i>	(%)
<i>Item 1</i>	3	7.7	3	7.7	16	41.0	10	25.6	7	17.9
<i>Item 2</i>	6	15.4	15	38.5	16	41.0	2	5.1	0	0.0
<i>Item 3</i>	2	5.1	4	10.3	9	23.1	21	53.8	3	7.7
<i>Item 4</i>	2	5.1	6	15.4	11	28.2	14	35.9	6	15.4
<i>Item 5</i>	1	2.6	5	12.8	11	28.2	18	46.2	4	10.3
<i>Item 6</i>	0	0.0	4	10.3	7	17.9	20	51.3	8	20.5
<i>Item 7</i>	1	2.6	2	5.1	13	33.3	17	43.6	6	15.4
<i>Item 8</i>	0	0.0	5	12.8	12	30.8	19	48.7	3	7.7
<i>Item 9</i>	0	0.0	4	10.3	12	30.8	20	51.3	3	7.7
<i>Item10</i>	1	2.6	2	5.1	12	30.8	18	46.2	6	15.4
<i>Item 11</i>	1	2.6	6	15.4	10	25.6	22	56.4	0	0.0
<i>Item 12</i>	1	2.6	2	5.1	14	35.9	20	51.3	2	5.1
<i>Item 13</i>	0	0.0	2	5.1	7	17.9	16	41.0	14	35.9
<i>Item 14</i>	0	0.0	3	7.7	7	17.9	25	64.1	4	10.3
<i>Item 15</i>	0	0.0	2	5.1	6	15.4	25	64.1	6	15.4

As seen in the table, the quarter of the participants reported that they have “frequently” had difficulty in finding elective courses in their departments. Just 7.7 % of the students reported that they had no difficulty finding courses. Similarly, when they were asked whether the number of courses is adequate in their area of study, none of the participant said “always”, and 5.1 % of the sample stated that they were “frequently” adequate. Remaining 53.9 % admitted that they were “never or seldom” adequate. Twenty one of the participants were satisfied with content of the courses. There were not big problem about the self-development that courses enable. Almost 36 % of the participants stated that courses were satisfactory to develop themselves. When they were asked if graduate courses satisfy their prior expectations, one replied “never” and five said “seldom” whereas 18 participants said “frequently”. Correspondingly, 71.8 % of the participants strongly believed that they can give similar lessons in future. Three of the participants were pessimist, 13 were neutral, and 23 were optimist regarding self-improvement. One third of the participants defended that during the courses they have “sometimes” found answers to the questions that they curious about during the courses. “The courses gave me chance to argument my idea” statement was supported by 24 of the participant unsurprisingly, while just 3 of them were thinking in an opposite way. Any of the participants responded the workload appropriateness as “always” and one third of the participant are not sure whether they were appropriate or not. Additionally 15.4 % of the participant selected “seldom” for appropriateness of that item. The participants were also asked about additional material adequacy. Fourteen of them pointed out that they were satisfactory “sometimes” though twenty of them indicated that they were satisfactory “frequently”. The participants were very pleased with the number of students in classes during the courses. None of them reported as “never” and only 2 of them reported “seldom” while 7 of them said “sometimes”. Other 30 respondents were very satisfied admitting 14 of them as “always”.

In the same vein the items “The supplementary material (e.g. books) of the courses were adequate” and “The names of the courses were compatible with its’ content” have been supported by most of the participant. No one said “never” for both; and three participants for former and two for the latter said “seldom”. More importantly 64.1 %of the participant agreed upon “frequently” choice for both items.

Table 3 represents total scores, mean scores, and standard deviations for each statement. As stated in the data analysis part, item 1 was reverse coded in this part because it was the only one having negative meaning throughout the questionnaire.

Table 3: Mean and Standard Deviation Related to the Questionnaire

Variable	Total	Mean	Standard Dev.
Item 1	102	2.62	1.11
Item 2	93	2.39	.81
Item 3	136	3.49	.97
Item 4	133	3.41	1.09
Item 5	136	3.49	.94
Item 6	149	3.82	.88
Item 7	142	3.64	.90
Item 8	137	3.51	.82
Item 9	139	3.56	.79
Item 10	143	3.67	.90
Item 11	131	3.36	.84
Item 12	137	3.51	.79
Item 13	159	4.08	.87
Item 14	147	3.77	.74
Item 15	152	3.90	.72

Based on the result, the participant complained mostly about following four issues respectively. First, the participant believe that the number of courses is not well enough in their area of study ( $M = 2.39$ ,  $SD = .81$ ). Second, they have had difficulty in finding elective courses in their department ( $M = 2.62$ ,  $SD = 1.11$ ). Third, they criticized inappropriate workload of the lesson ( $M = 3.36$ ,  $SD = .84$ ). And last, they expressed their dissatisfaction about unsatisfactory nature to develop themselves in the area they have been studying ( $M = 3.41$ ,  $SD = 1.09$ ).

Moreover, participants believe that the course content was convenient ( $M = 3.49$ ,  $SD = .97$ ) and the courses satisfied their prior expectations adequately ( $M = 3.49$ ,  $SD .94$ ). Participants seldom could not find answer to the question they are curious about ( $M = 3.51$ ,  $SD = .82$ ). Similar trends were also established for the idea about additional material adequacy ( $M = 3.51$ ,  $SD = .79$ ). Participants were not far from neutral about the item “I can give lesson that is similar to ones that I got so far in future” ( $M = 3.56$ ,  $SD = .79$ ). In item seven and item ten, participants articulated somewhat positive answers ( $M = 3.64$  and  $3,67$   $SD = .90$  and  $.90$  respectively).

Participant advocated that the supplementary material needed to follow courses were adequate ( $M = 3.77$ ,  $SD = .74$ ). Likewise, they confirmed that in future they can offer similar courses to the ones they got in graduate program ( $M = 3.82$ ,  $SD = .88$ ). Correspondingly, “the names of the courses were consistent with its content” item was supported by the participant most ( $M = 3.90$ ,  $SD = .72$ ) and distinctively, the class size appropriateness had been confirmed great rate by the participant ( $M = 4.08$ ,  $SD =.87$ ).

## DISCUSSION AND CONCLUSION

This study has a potential to contribute to the dispute among researchers in the field of academic preparation that graduate students are not satisfactorily qualified in accomplishing effective academic qualifications.



Overall in this study, participants were satisfied with the contents of the courses they have got so far. Alternatively, the participant were positive about extras of courses specifically, sources, class sizes, and correspondence of name and contents of the courses. On the other hand, a great deal of the participants claimed that they require more elective courses in order to adequately develop themselves academically. Besides, they noticed that the workloads of the courses are not appropriate for their area of study. They also indicated that the elective courses were not satisfactory enough to develop themselves.

The result of this study supported that graduates students should be provided more and diverse elective courses in varied expertise area by the academicians. Therefore the university and faculty management should be more sensitive about this issue.

With everything considered, master and doctorate programs should provide graduate students with;

- ample elective courses
- adequate number of courses in their study area with appropriate workloads
- courses which satisfactorily help them develop in order to be more competent academically and more advanced in their area of expertise.

Even though the limitations of the study were that the sample size was small, and the study was conducted only in one university, the result of the study reveals the situation in graduate schooling in the faculty of educations in Turkey. Therefore, it is recommended that similar studies should be replicated with different universities using grater sample sizes.

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