

The Opinions of Preservice Physical Education Teachers Towards the Physical Education Teaching Field Knowledge Test

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Abstract

The aim of this study is to examine the opinions of preservice physical education teachers towards the teaching field knowledge test (TFKT). The test, which constitutes half of the score required to be appointed as a teacher is believed to determine the level of knowledge of preservice teachers in their fields of teaching. Preservice teachers' opinions towards the field knowledge test are, therefore, noteworthy. The study was conducted with 18 preservice teachers (9 female, 9 male) who graduated from the physical education teaching departments of universities and took the teaching field knowledge test at least once. This study used the qualitative case design and the criterion sampling method, one of the purposive sampling types. Data were obtained using the interview technique, which included five semi-structured and non-directive, open-ended interview questions. MaxQDA 2020 qualitative data analysis program was used in the modelling of the research data. According to the results of the analysis, although the candidates stated positive opinions in relation to the function of the TFKT for discriminating between who is competent and who is not, choosing a well-equipped teacher, serving as a measurement tool and measuring professional

competencies, the majority of the participants presented negative opinions about the field knowledge test in physical education teaching. The reasons for the negative opinions were that the test lacks a suitable distribution of questions, relies on memorization is too detailed, does not measure motor skills and does not match the undergraduate course content as well as having an excessively wide scope.

Keywords: Preservice physical education teachers, Physical education TFKT, Physical education teaching undergraduate program

1. Introduction

The education system plays the most important role in training qualified manpower in Turkey, which is regarded as the main purpose of our education system (Çelikten, Şanal, Yeni, Çelebi, & Acar, 2005). Our education system is a dynamic structure formed by the combination of teachers, students, and education programs (Şişman, 2007). The most crucial elements of this dynamic structure are teachers who conduct education and training activities so that learning can be achieved, and are in the closest position to learners.

In the National Education Fundamental Law No. 1739 of the Ministry of National Education (MONE), the job of teaching is particularly defined as a ‘profession of specialty’ and the qualifications to be sought in preservice teachers consist of general knowledge, specific field knowledge, and pedagogical field knowledge (MONE, 2011). It is of great importance to know exactly what these three concepts refer to in studies where teacher qualifications or competencies are discussed. The concepts can be defined as follows: General knowledge is the dimension that can help teachers to use their professional skills effectively and includes interdisciplinary experiences and knowledge of teachers in the education process (MONE, 2011). The pedagogical field knowledge includes ways of formulating a topic to others in an understandable way, whereas the teaching field knowledge is the knowledge of facts and concepts related to the teacher’s field of teaching (Shulman, 1987).

It is necessary to train teachers equipped with the above-mentioned qualifications in order to be able to achieve the objectives of education and training activities. To put it differently, achieving and fulfilling the process of teaching with desired qualifications depends on teachers to master the subject, to consider the student and the subject matter while selecting a particular method and technique, and to transfer what they know to the learner in an understandable way (Erdem & Soylu, 2013). In addition, studies in the literature have proved that teaching field knowledge and pedagogical field knowledge are necessary to reach the targeted education (Ball, 1988; Davis & Simmt, 2006; Hill, Rowan, & Ball, 2005; Shulman, 1986; Tchoshanov, 2011; Wilson, 1987). The declaration of the Ministry of National Education dated 2013 stated for the teaching field knowledge test that ‘it aims to select qualified preservice teachers who have in-depth knowledge and skills about the subject matters that are to be taught in the curriculum and on how to teach their knowledge in the field.’

In order to carry out education and training activities effectively in the world and in Turkey, candidates who have graduated from universities and have the qualification to become a

teacher, who meet the conditions and who can enter the quota determined as to the highest scores in the selection stages, are appointed as teachers. Since the selection process of qualified teachers is quite difficult for a number of reasons, various regulations have been made regarding the appointment of teachers in recent years. Some changes were made to the testing system for teacher selection and appointment from time to time due to the differences between the number of teachers that the Ministry of Education can employ and the number of preservice teachers who graduate from the physical education teaching departments of sports sciences and education faculties, and those who graduate from other departments of the sports sciences faculties, yet receiving a pedagogical formation certificate. Until 2014, teacher appointments were made according to the scores obtained from educational sciences, general knowledge and general aptitude tests, while teaching field knowledge test was introduced in 2013, and job interview scoring system was added in addition to test scores in 2015. While the number of questions in all fields of the teaching field knowledge test was increased from 50 to 75 in 2019, the distribution of the topics was rearranged by faculty members in the relevant fields.

In the literature, there are many studies conducted on the role of the Public Personnel Selection Exam (KPSS) in the selection and appointment of teachers, as well as its content validity, content, and revealing preservice teachers' opinions about KPSS (Atav & Sönmez, 2013; Elçiçek, Tösten, & Kılıç, 2012; Gündoğdu, Çimen, & Turan, 2008; Yüksel, 2004). The results of the study revealed the opinions that the content of the KPSS is inadequate in teacher selection, that the test fails to measure the field knowledge of preservice teachers, and more valid exams are needed in teacher selection (Atav & Sönmez, 2013; Elçiçek et al., 2012; Gündoğdu et al., 2008; Kuran, 2012; Şahin & Arcagök, 2010; Yüksel, 2004).

Teaching field knowledge test was first administered in addition to the KPSS for teacher appointments in 2013. Physical education teaching was also included in the scope of the TFKT, which had been applied in 16 branches of education by 2019. Since the physical education teaching field knowledge test is a new procedure, we believe that there is no similar study in the literature, and that our results will help the implementation of the new system. In the same time, determining the opinions and ideas about teaching field knowledge test (TFKT) is critical as it constitutes half of the scores required for the appointment of teachers. From this point of view, the purpose of this study is to determine the opinions of preservice physical education teachers regarding the knowledge test that has been administered since 2019.

1.1 Aim of the Study

The aim of this study is to determine the opinions of preservice teachers who graduated from physical education teaching at universities regarding the physical education teaching field knowledge test. To this end, the preservice physical education teachers were asked the following questions:

1. What are your opinions on the scope of the physical education teaching field knowledge test?

2. What are your opinions on the relationship between the curriculum of the undergraduate program and the scope of the test?
3. What are your negative opinions about the physical education teaching field knowledge test?
4. What are your positive opinions about the physical education teaching field knowledge test?
5. Do the questions in the physical education teaching field knowledge test cover the teaching competencies of the physical education?

2. Methods

2.1 Research Design

A case study was presented in the current study as a qualitative research design. The most important feature of case studies is the detailed examination of one or more cases. The purpose of case studies is to describe and examine a specific feature in depth (Ary, Jacobs, Razavieh, & Chris, 2013; Merriam, 2013). The purpose of case studies is to describe and examine a specific feature in depth (Ary et al., 2013; Merriam, 2013). Therefore, our study also aimed to conduct an in-depth analysis with few questions asked to the participants. Holistic single case studies are carried out with the aim of revealing previously unknown or unexplored issues, and creating a basis for future research (Christensen, Johnson, & Turner, 2015; Şimşek, & Yıldırım, 2011). The issue addressed in this study is the opinions of preservice physical education teachers towards the physical education teaching field knowledge test. Since the present study aims to define the opinions of the preservice physical education teachers towards the test, the case study design is believed to be fit for the purpose.

2.2 Study Group

The study group consisted of 18 preservice teachers (9 females, 9 males) who graduated from the physical education teaching department of universities and took the teaching field knowledge test at least once. Instead of large groups in qualitative research, it is necessary to determine samples that can submit detailed data that meets the goals of the research (Coyne, 1997). Large groups can lead to increased mathematical errors and erroneous generalizations for quantitative research (Morgan & Morgan, 2008). The members of the study group were selected using the criterion sampling type, which is one of the types of purposive sampling (Şimşek, & Yıldırım, 2011). Criterion sampling can be used in any situation that meets a predetermined set of criteria. Relevant criteria can be created by the researcher or previously prepared criteria can be used (Marshall & Rossman, 2014). In this study, the main criteria include having graduated from the departments of physical education teaching and taking the teaching field knowledge test at least once.

Demographic features of physical education teacher candidates participating in the study is presented in Figure 1.

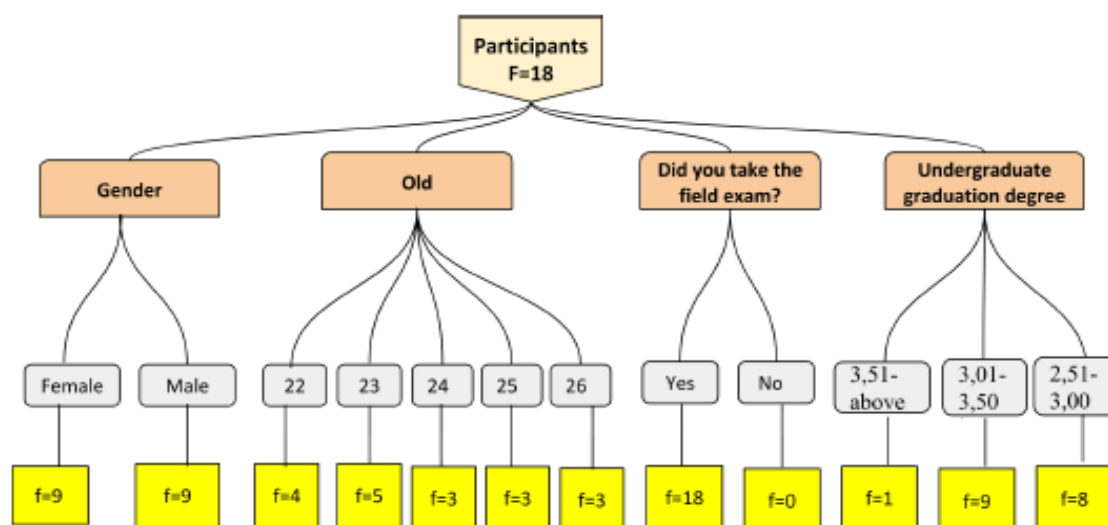


Figure 1. Demographic features of physical education teacher candidates

2.3 Data Collection Tools

Semi-structured interview form was used as the data collection tool in the study. The questions in the interview form were first prepared by directly or indirectly reviewing the relevant literature. In the next step, two academics, who are experts and experienced in the field of physical education teaching, were consulted and the interview questions were revised and rearranged in line with the criticism and recommendations of the academics. The interview form was sent online to the participants due to the pandemic (Covid-19), which still affects the world and our country, too, and was collected back online by allowing sufficient time to complete. During the application, in the event that there was something that the candidates did not understand, the participants were provided with necessary information through text messages and phone calls.

2.4 Data Analysis

Content analysis method was used to analyse the data. In this respect, the interview questions were coded by two different researchers. After checking the similarity between the codes, the code coverage was achieved in the form of categories by the two researchers, after which the categories were compared, and the agreed ones were formed (Şimşek & Yıldırım, 2011). The analysis process was completed by making the necessary corrections in line with the expert opinion. During the coding phase of the data, the texts were carefully read and the encodings were analysed in the MaxQDA 2020 qualitative data analysis software.

The themes, related code, frequencies and participant opinions formed as a result of the analysis are explained by 5 figures and tables. The thickness of the arrows formed in the figures varies according to the relationship between the specified theme and the code. While expressing the statements, the preservice teachers participating in the study were given codes such as T/1, T/2, ... T/18 by considering the ethical rules of the research. In addition, direct quotations were made in qualitative evaluations to reflect the ideas as they were (Yin, 1994).

The responses to stand as examples for each category were given directly. Also, it was aimed to reach more general judgments about the problem of the study by giving the frequency levels of the opinions and opinions of the participants about each category.

2.5 Data Reliability and Validity

Reliability and validity of the study was calculated using Miles and Huberman’s consensus and disagreement formula among researchers and experts [(Reliability = Number of consensus/(Total number of agreements + Disagreements)]. This calculated reliability coefficient is desired to be 90% (Miles & Huberman, 2016; Saban, 2008). 94% consensus (reliability) was achieved in the reliability study applied in this research. It was aimed to make a joint decision by reviewing the codes and categories in which there was a disagreement.

2.6 Ethics Text

Ethics committee approval for the study was obtained from Atatürk University Sport Sciences Ethics Committee. After the content and purpose of the study were explained to the participants, they were asked to sign the Informed Consent Form of the Atatürk University Sport Sciences Ethics Committee.

3. Results

The answers given to the research questions by the preservice physical education teachers who voluntarily participated in the study are shown in figures and tables.

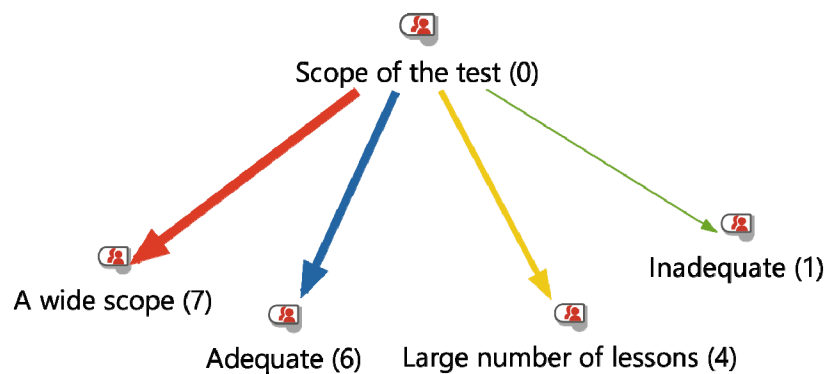


Figure 2. The model based on the views of preservice physical education teachers on the scope of the physical education teaching field knowledge test

Table 1. Results regarding the opinions of the preservice physical education teachers on the scope of the physical education teaching field test

Code	Participants	Sample Participant Views	f
A wide scope	T1-T3-T4-T5-T6-T7-T8	The scope is very wide and full of lectures that are believed to be given at university (T6).	7
Adequate	T12-T13-T14-T15-T16-T18	The inclusion of important courses in the undergraduate education shows that its scope is adequate (T14).	6
Large number of lessons	T2-T9-T10-T11	It is difficult for preservice teachers as the number of topics and course contents is too large (T11).	4
Inadequate	T17	I do not think it is fully adequate in terms of scope (T17).	1

Table 1 shows that the preservice teachers considered the scope of the TFKT from different aspects. Most of the preservice teachers ($f = 7$) indicated that the scope of the test is too wide, whereas only one of them ($f = 1$) referred to it as inadequate. Further, some preservice teachers stated that the field knowledge testis adequate ($f = 6$), while some addressed the excessively large number of courses, the contents of which are covered in the test ($f = 4$).

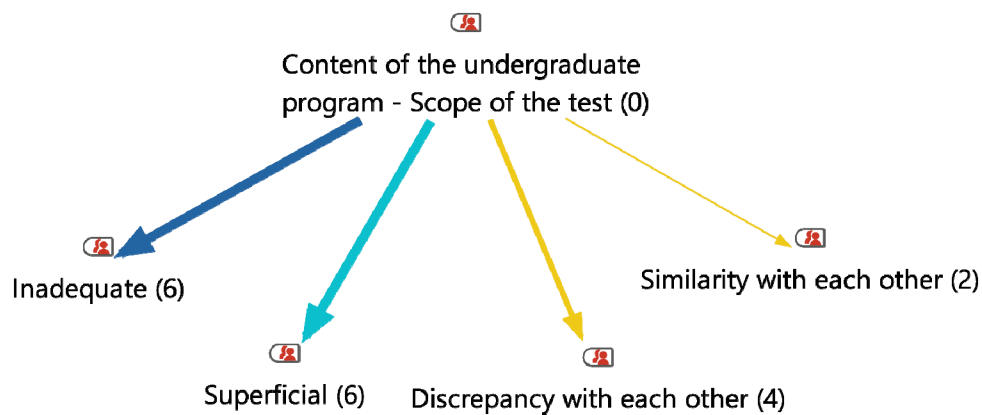


Figure 3. The model based on the views of preservice physical education teachers regarding the course content of the physical education teaching undergraduate program and the scope of the physical education teaching field knowledge test

Table 2. Results based on the views of preservice physical education teachers regarding the course content of the physical education teaching undergraduate program and the scope of the physical education knowledge test

Code	Participants	Sample Participant Views	f
Superficial	T2-T10-T11-T14-T15-T18	The course contents in the undergraduate program were more superficial than the scope of the field knowledge test(T10).	6
Inadequate	T3-T4-T12-T13-T16-T17	The education we received at university is not enough for us to succeed in the TFKT (T12).	6
Discrepancy with each other	T5-T6-T7-T8	The lessons we took at school and the questions we saw in the exam are not even remotely related (T8).	4
Similarity with each other	T1-T9	The course content and the test content are the same (T9).	2

Table 2 shows that the participating preservice teachers had negative opinions about the undergraduate course content and the scope of the TFKT. Most participants expressed their opinions as: undergraduate course content is superficial (f = 6) and it is inadequate (f = 6), and the scope of the field knowledge test does not comply with the undergraduate course content (f = 4); while only two of them (f = 2) stated that undergraduate course content and the scope of the field knowledge test are similar to each other.

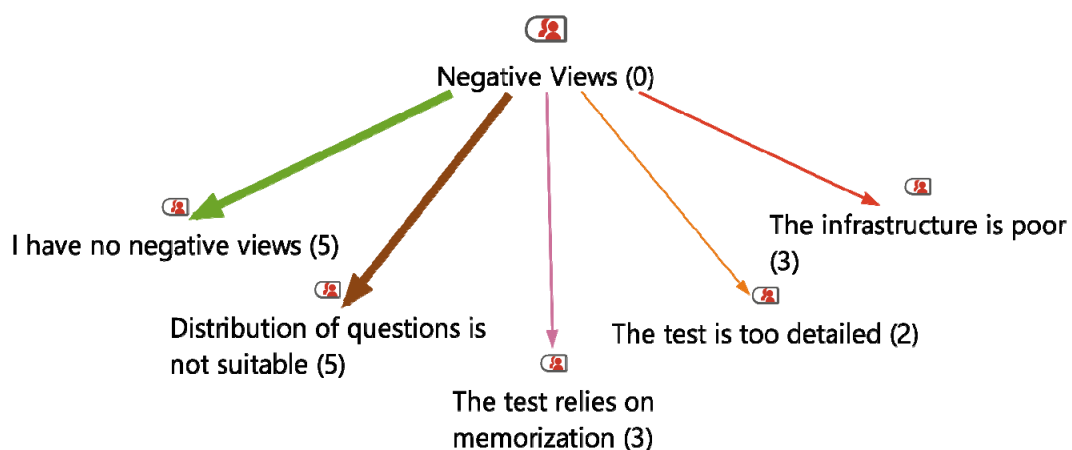


Figure 4. The model based on negative views of preservice physical education teachers about physical education knowledge test

Table 3. Results based on negative views of preservice physical education teachers about physical education teaching field knowledge test

Code	Participants	Sample Participant Views	f
I have no negative views	T2-T9-T10-T15-T18	I have no negative views. I think it is a necessary test (T2).	5
Distribution of questions is not suitable	T5-T6-T12-T11-T17	Questions are not equally distributed according to the topics. In this way, preservice teachers who know a few major subjects have the chance to answer questions without having much command of other subject matters. (T12)	5
The test relies on memorization	T3-T4-T13	The large number of lessons and the content requiring a lot of memorization is time consuming (T4).	3
The infrastructure is poor	T8-T14-T16	The reason for my negative view about the field knowledge test is that I don't think there is a complete system of the test yet. I can say that there are questions open to criticism in particular (T16).	3
The test is too detailed	T1-T7	Too much detail in the field of physical education makes it quite difficult (T7).	2

Table 3 shows that the preservice teachers had differing negative views about the TFKT. Most of the preservice teachers (f = 13) expressed their negative views against the test and identified their reasons as follows: The test lacks a suitable distribution of questions (f = 5), relies on memorization (f = 3), has a poor background (f = 3) and is too detailed (f = 2). Only five of the participants (f = 5) did not express any negative views related to the field knowledge test.

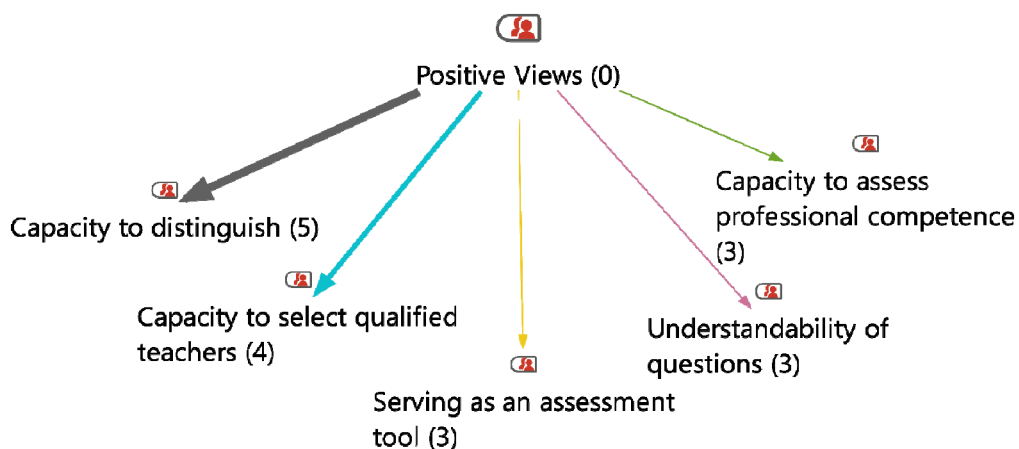


Figure 5. The model based on positive views of preservice physical education teachers about physical education teaching field knowledge test

Table 4. Results regarding the positive views of preservice physical education teachers about physical education teaching field knowledge test

Code	Participants	Sample Participant Views	f
Capacity to distinguish	T3-T4-T5-T10-T18	I think that it is good to have the because, having looked at the large number of graduates, it helps distinguish between who is knowledgeable and who is not, though not completely (T4).	5
Capacity to select qualified teachers	T6-T9-T12-T14	The test should definitely be held because, after I was appointed, I could never have acquired the knowledge I learned while preparing for the field knowledge test. It will always be an advantage for us to teach students in a more competent way (T6).	4
Capacity to assess professional competence	T2-T11-T15	Since the field knowledge test assesses our professional competence, I believe that the teachers who are successful in the exam and assigned later will be more successful (T11).	3
Serving as an Assessment Tool	T1-T13-T16	I am glad that it assesses the level of knowledge. It is good to see and complete our shortcomings (T13).	3
Understandability of questions	T7-T8-T17	The questions are clear, that is the only positive aspect I see, I mean, only this (T17).	3

Table 4 shows that all of the participating preservice teachers ($f = 18$) stated positive views about the TFKT. The positive opinions of the preservice teachers about the test can be summarized as follows: The test has the capacity to distinguish ($f = 5$), enables the selection of qualified teachers ($f = 4$), assesses professional competence ($f = 3$), serves as an assessment tool ($f = 3$), and questions are clear and understandable ($f = 3$).

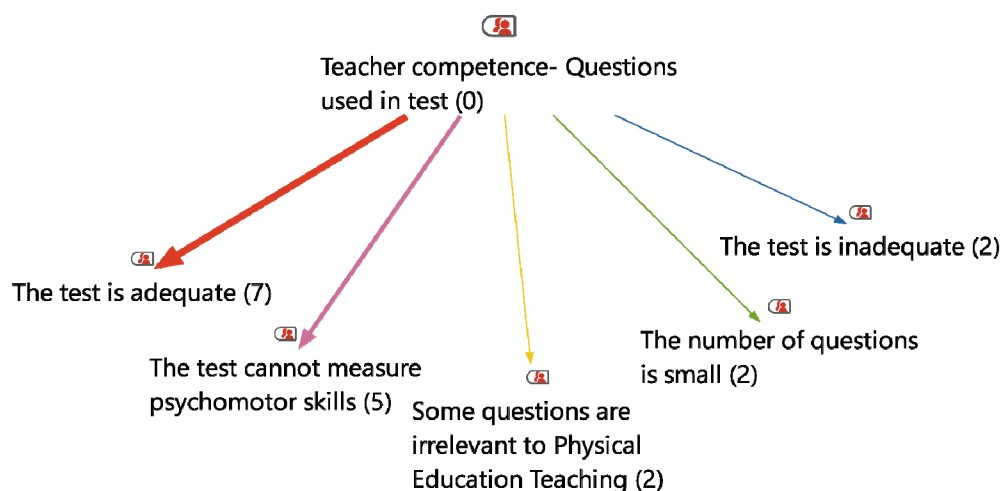


Figure 6. The model based on preservice physical education teachers' views on the extent of relevance of the questions used in the physical education teaching field knowledge test in relation to assessing physical education teaching competence

Table 5. Results regarding the preservice physical education teachers' views on the extent of relevance of the questions used in the physical education teaching field knowledge test in relation to assessing physical education teaching competence

Code	Participants	Sample Participant Views	f
The test is adequate	T1-T3-T5-T9-T14-T15-T17	I think the test will improve a little more each passing year considering its relatively new use. For physical education teachers, I think the current questions assess the skills in our field adequately (T15).	7
The test cannot measure psychomotor skills	T6-T7-T10-T11-T12	Considering that there are motor skills in physical education, I do not think that a test assessing only the cognitive area will be sufficient (T12).	5
The test is inadequate	T4-T8	The questions do not assess the teaching proficiency in any way (T8).	2
The number of questions is small	T2-T18	I think it would be better to increase the number of questions because of the large number of courses and a wide range of content (T18).	2
Some questions are irrelevant to Physical Education Teaching	T13-T16	I would like to say that the greatest weakness of the newly used field knowledge testis that some questions are not directed to our field. I think it will be more consistent and the content validity will increase after a few years (T16).	2

Table 5 presents that the preservice teachers expressed different opinions about whether the questions in the TFKT were satisfying in choosing qualified physical education teachers. Most of the preservice teachers ($f = 11$) stated that the field knowledge test was inadequate in choosing teachers, while others stated that the test cannot assess the psychomotor skills ($f = 5$), and is inadequate ($f = 2$), and that the number of questions is small ($f = 2$) and there are questions outside the field and irrelevant to Physical Education teaching ($f = 2$). Only seven of them ($f = 7$), however, stated that the test is adequate.

4. Discussion

With the aim of determining the opinions of preservice physical education teachers towards the physical education teaching field knowledge test, the present study concluded that the opinions of the preservice teachers towards the TFKT were generally negative. Positive views were obtained in the responses given only to one of the five open-ended questions directed to the participants, including the scope of the TFKT, negative and positive opinions about the test, views about the conformity between the field knowledge test and undergraduate course content, and the role of the test in measuring teacher competence, whereas negative views were predominant in the other four questions. In this respect, it appeared that most of the preservice physical education teachers had negative views about the TFKT. Preservice teachers' reasons for their negative opinions were that the test relies on memorization and is too detailed, the number of questions is small, the question distribution is not satisfying, the test scope is too large, the infrastructure is not yet at the desired level because it is a new exam, and the number of courses included in the test content is large.

Another issue emphasized by the preservice teachers in addition to the broad content and scope of the TKCT is that the test is very detailed and relies on memorization. For this reason, the participants were of the opinion that if a competitive exam is to be applied for teacher appointments, the exam should be a simple one that does not contain excessive detail based on memorization. The teaching profession is an important area of specialization that requires skills, special knowledge and attention (Sönmez, 1999). Considering that the curricula of teacher training departments include general knowledge, field knowledge, and teaching profession courses (Arslan & Özpınar, 2008), a practice-oriented and process-based teacher selection policy should be adopted (Erdem & Soylu, 2013).

In response to the question posed to compare the scope of the TFKT and the course content of undergraduate programs, the preservice teachers expressed negative opinions, stating that they do not match each other. They also stated that the contents of undergraduate courses are superficial and inadequate for the TFKT. The results of this study are similar to the results of the studies in the literature for such field knowledge tests in different branches (Atav & Sönmez, 2013; Şahin, Arcagök, Saridas, & Demir, 2015; Şahin & Demir 2016). Two preservice teachers, on the contrary, stated that the content of the undergraduate course and the content of the test are the similar.

One of the results of the study is that some of the participants expressed positive opinions by justifying their thoughts and stating that the field knowledge test is an assessment tool, helping to choose well-equipped teachers, measuring professional competence, and that it is

distinguishing between who is competent and who is not. The opinions of the participants in this respect coincide with some research results about the field knowledge tests in different branches (Demir & Bütüner, 2014; Erdem & Soylu, 2013; Şahin et al., 2015; Şahin, & Demir, 2016).

When the questions in the TFKT were examined in terms of determining the competence of physical education teachers, it appeared that most of the preservice teachers found the TFKT inadequate for teacher selection since it does not measure the psychomotor skills and is inadequate, the number of questions is insufficient, and irrelevant questions are included outside this particular field. Similar results exist in the literature in a variety of studies conducted in different branches (Şahin et al., 2015; Şahin & Demir, 2016).

5. Conclusion

According to the results of the analysis, although the candidates stated positive opinions in relation to the function of the TFKT for discriminating between who is competent and who is not, choosing a well-equipped teacher, serving as a measurement tool and measuring professional competencies, the majority of the participants presented negative opinions about the field knowledge test in physical education teaching. The reasons for the negative opinions were that the test lacks a suitable distribution of questions, relies on memorization is too detailed, does not measure motor skills and does not match the undergraduate course content as well as having an excessively wide scope.

6. Suggestions

According to the data obtained in the study, the following suggestions were made.

- ✓ It is believed that good regulation of the number and distribution of questions in the field exam will contribute to the search for qualified teachers.
- ✓ It is believed that adopting a process and practice-based approach, remote from memorization and excessive detail in the field exam, will contribute to the search for qualified teachers.
- ✓ It is believed that the content and scope of the physical education field exam and the content of the undergraduate course complement each other will contribute to the search for qualified teachers.
- ✓ As teaching field knowledge testing is a new application, literature can be made more meaningful by conducting similar studies in the following years.

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