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Opinions about the content of the anatomy course of future physical education teachers and their ability to apply what they have learned in professional activities

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Abstract

The behaviours gained in graduate education should be used in their professional life. As a result of the literature review, it is concluded that physical education teachers have problems in transferring knowledge in their professional competence. The opinions of physical education teachers about the education they received at the university are important in terms of investigating the source of this problem. Anatomy is about the body. The achievements of the anatomy course and the applicability of these gains are very important. This research was conducted with last year students studying at the physical education department at the university. 48 pre-service teachers who took the Anatomy course, studying in the physical education department, participated in the research. Researchers were selected based on volunteerism. The qualitative research method was used in the research and the findings were supported by content analysis. 4 open-ended questions prepared by the researcher were prepared by taking expert opinions. The results obtained from the research show that the anatomy course is important for physical education, and the behaviours to be gained in this course will have to be used frequently in professional life. Again, it was concluded that explaining the anatomy course content as applied while preparing it will facilitate their learning. As a result of the results obtained from this research, the anatomy course taught in universities is an important course for the physical education profession. The method applied for the problems experienced in this course can be changed technically. In the anatomy course, which includes theory and practice, practice can eliminate the problems experienced.

Keywords: physical education, anatomy, professional competence, usability, human structure, training program

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1. Introduction

The purpose of education is to transfer the culture that marks the society from generation to generation (Değirmenci, 2007; Konst, & Kairisto-Mertanen, 2019). The aim of the education system today is to provide effective education, to create the necessary environment for its students, to provide the determined gains, to support the student's learning by living and to enable them to use these teachings in the future life (Shkola, Zhamardiy, Saienko, Tolchieva & Poluliashchenko, 2020; Yildiz, Cengel, & Alkan, 2020).

In our developing world, individuals are not expected to receive and memorise information from a single source. While planning the training sessions to be given in educational institutions, it is aimed to raise individuals who know the ways to reach information, can use the information and produce solutions by using the information they have obtained. The use of teaching materials prepared in accordance with the principles of instructional technology is important for individuals to acquire these characteristics and for teachers to design effective and interactive learning environments (Brookfield, 2018; Gülbahar & Alper, 2009). The training of trainers is directly related to their future professional qualifications. The educational institutions of the future teacher candidates are higher education institutions.

The purpose of training experts in higher education institutions is to gain professional competence (Gündüz, 2004; Ishola, Adeleye, & Tanimola, 2018; Bakhmat, Maksymchuk, Voloshyna, Kuzmenko, Matviichuuk, Kovalchuk, & Maksymchuk, 2019). The necessity of designing the outputs of educational programs in higher education as a list of vocational and general qualifications brings to life the problem of rethinking the role of science and education in forming the qualifications of a future specialist as part of vocational education. These qualifications to be gained are determined through the basic components of education. Claims that continuing professional development “must meet requirements” are hard to argue with. As learners in a changing and developing society, the continuing needs of teachers are also increasing rapidly (Dadds, 2014, p. 9). Teachers should have talented, agile and sustainable features (Department of Education and Training Queensland, 2011, p. 21). Teachers should provide education in a structure that focuses on learning and connects knowledge and practice in a way that supports professional and pedagogical growth (Darling-Hammond, 2006). The training aimed at gaining all these knowledge and skills to teacher candidates is given during the pre-service training processes of teacher candidates. However, pre-service teachers should have this knowledge and skills as well as have a belief in their abilities to apply this knowledge and skills (Ü. N. L. Ü., & Erbaş, 2018; Garbin, Trombeta de Oliveira, Pirillo, & Telles, 2020). At this point, it will be necessary to talk about the competence of physical education teachers.

It can be said that the effective fulfillment of this role of the teacher primarily depends on the fact that he is well trained in his field and that appropriate conditions are created that will allow him to fully devote himself to his work (Özkan, 2012). The basic education they receive in higher education is very important for physical education teachers. Because the future use of the education they receive in their professional life is directly related to the use of the knowledge of various parts of the human biology branch. Physical education teacher has to know the biochemical composition and anatomical structure of a human body. They should define the physiological processes of the human organism that provide vital activities and know the metabolism processes in detail, know-how physical exercises can affect the human body, and determine optimal physical activities. In order to know these gains, he should know the structure of the human body and organise activities by using the methods of determining the functional characteristics of the human structure. Learning by doing-experience in

teaching and learning information about anatomy to physical education teachers at universities. Approaches should be used. Thanks to this approach, very important changes occur in the cognitive and affective development of students (Serin & Zambak, 2020). The aim of teaching is that the student acquires knowledge correctly, thinks critically, be self-sufficient, develops the ability to choose, explores and aimed at gaining the ability to use Anatomy course teaches students every part of their business life throughout their lives. aims to gain knowledge and skills that they will use in the field (Temur, Ceylan, & Oner, 2020; Ministry of National Education [MEB], 2006). Thanks to physical education and sports activities, the human body has the best environment in which it can move. Every physical activity, from basic movements to the finest skills, is what we have. We fulfill it by using the organism (Ulutaş, Demir & Yayan, 2017).

As a result of the literature review, the fact that physical education teachers have problems in the transfer of knowledge in practice is due to the incompatibility of teaching methods and knowledge levels with the physical education curriculum. It has been tested that physical education teachers use teacher-centered methods and have difficulties in using student-centered methods (Serbes & Cengiz, 2015; Koparan, Öztürk & Korkmaz, 2011; Karabulutlu & Pulur, 2017; Yıldız & Kangalgil, 2014; Saraç & Muştu, 2013). Teaching skill is closely related to the ability to use teaching methods (Serbes & Cengiz, 2015). The competencies of physical education teachers, on the other hand, emphasise the knowledge, understanding, skills and attitudes required to fulfill the duties and responsibilities required by physical education teaching, as well as the capacity required to perform the physical education teacher profession (Ünlü, Sünbül, & Aydos, 2008). There is a growing literature on Continuing professional development for physical education teachers, which largely reflects theories, concepts and research, and findings in other fields of education, physical education teachers (Armour & Makopoulou, 2012; Patton, Parker & Pratt, 2013). It is also acknowledged that, despite decades of research, little solid evidence still supports conclusive claims about what constitutes "effective" continuing professional development (Hill, Beisiegel, & Jacob, 2013). A dictionary definition states that something must succeed in producing a desired or intended result in order to be defined as 'effective'. Still, this rather bland definition raises complex - and vital - questions about whose intentions count, why, and in what contexts. Certainly, the current body of research on continuing professional development effectiveness has found that from the official - or continuing professional development, manufacturer/provider - point of view, the intended goals of continuing professional development are rarely met as envisioned.

Considering all this information, the opinions of future physical education teachers about applying the skills they learned are very important.

2. METHOD:

2.1. Research Model

This research, which aims to get the opinions of physical education students about their ability to apply their anatomical knowledge in professional activities from the education they receive at the university, is a descriptive study based on qualitative data. The method of the research is qualitative research designed as descriptive research. The questions prepared in the case studies are intended to provide an in-depth explanation and understanding of the current situation. Qualitative research is a process-related method rather than available data or results. For this reason, the meanings to be drawn from the results obtained in qualitative research are very important (Merriam, 1988; Tekindal, & Şerife, U. Ğ. U. Z., 2020).

2.2. The Aim of Research

In this study, it was aimed to determine the opinions of pre-service physical education teachers about whether they use the anatomical knowledge they received at the university in their professional life or not. For this general purpose, answers to the following questions were sought:

1. Is anatomy lesson important in the physical education department? Why?

2. What should the content of the anatomy course be?

3. Is there a need for practice in the anatomy course? If so, what kind of applications would you like to have?

4. Do you intend to use the contents you learned in the anatomy course in your professional life? Why?

2.3. Study Group

The opinions of 48 senior students studying at the university were consulted for the findings of the physical education teaching department students regarding the anatomy knowledge they received at the university. The condition of the students participating in the research must have taken the anatomy course.

Table 1. Demographic characteristics of physical education department students participating in the research

Variable	Level	N
Gender	Female	28
	MALE	20
	TOTAL	48
Age	17-20	18
	21-22	18
	23 And Over	12
	TOTAL	48

3. Result

Table 2. ***Importance of anatomy course for physical education department***

Opinions	F
human structure	25
physical activity	15
Coordination	6
Protection from accidents	2

All of the physical education department students in Table 2 stated that the anatomy course is important for the department they are studying. 25 pre-service teachers stated that it is important because they will learn the human structure with the anatomy course. 15 physical education department students stated that they should know the anatomical structure in terms of practicing physical activities. 6 pre-service teachers stated that the acquisitions they will learn in the anatomy lesson are important for the proper execution of coordination activities. On the other hand, 2 pre-service teachers stated that the anatomy course is important for the prevention of accidents that may occur during the applications and for being able to intervene in the occurrence of accidents.

The opinions of some students towards these statements are as follows;

S.O.1: "Anatomy is a human construction. Physical education is a branch of human nature. Anatomy lesson is very important for the physical education department. It enables us to understand the human structure."

S.O.2: "Anatomy course is a very important course. I think it is a course that should be given at least 3 or 4 semesters, not just one semester. For physical education, we need to know the anatomical structure. We need to know the human structure while determining physical activities by practice. This is an achievement that can be learned with the anatomy course."

3.2. Content of the anatomy course

The findings regarding how the course content of the anatomy course given in the physical education department at the university should be are given in Table 3.

Table 3. shows how the anatomy lessons given in physical education at the university should be.

Opinions	F
functional	25
Applicable	15
Simply Hard	8
General to specific explanation	5

3.1 Is anatomy lesson important in physical education department? Why?

The importance of the last year students of the physical education department for the parts of the anatomy course they took was asked

When the findings in Table 3 are examined, there are 20 teacher candidates who stated that the content of the anatomy course should be functional. The functionality has the same content structure as the application. There are 15 teacher candidates who stated that the contents described should be

applied. Eight pre-service teachers stated that the subjects of the course content should go from simple to difficult. 5 Pre-service teachers stated that the subjects should go from general to specific.

The opinions of some students towards these statements are as follows;

S.O.1: “Anatomy lesson is one of the daunting lessons. Since the subjects are difficult, it is very important that the subjects to be covered are functional. If it is functional and applicable, we will provide easier learning.”

S.O.2: “ It is very important for teachers to go from simple to difficult while preparing course contents. Anatomy course is a difficult course and the subjects are difficult. By starting with simple subjects, our level of fear is minimised."S.0.3: “The concepts we learned in the anatomy lesson can be learned better as a result of the materials and explanations. Applying what we learned in the anatomy lesson causes us to learn better.”

3.3. Is there a need for practice in the anatomy course?

The students of the physical education teaching department were asked whether they had application needs related to the anatomy course. The answers to this finding are given in Table 4.

Table 4. Whether or not the application is needed in the anatomy course

Opinions	F
YES	46
More than memorisation	40
not testing	10
NO	2

When the findings of physical education teaching department students need practice in anatomy lessons, only 2 pre-service teachers stated that there was no need. 46 pre-service teachers stated that there is a need for practice in anatomy lessons. 40 teacher candidates stated that there is a need to practice due to the high memorisation in the anatomy course. 10 teacher candidates stated that they could not test what they learned.

Some of the students' views on these statements are as follows:

S.O.1: “The anatomy course content includes theoretical information. It's a rote-based lesson. For this reason, learning becomes more permanent when practiced.”

S.O.2: “I don't need practice in anatomy class. I don't want to answer why”.

3.4. Do you plan to use the contents you learned in the anatomy course in your professional life? Why?Last year students studying in the physical education department were asked whether they would use the content they learned in the anatomy course in their professional life. When the findings related to this question were examined, all of the pre-service teachers stated that they would use it. Eight pre-service teachers stated that not all of the information in the anatomy course content is important, so they would not use all of them. Thirty of the pre-service teachers stated that they wanted to be a physical education teacher, and 18 of them wanted to be a trainer. Pre-service teachers who will choose both professions stated that they needed what they learned in the anatomy course in their professional life. They think that the gains learned in the anatomy course will be useful

in their professional life, as they have to know the life mechanism of human beings and human nature due to the profession they want to do.

4. Conclusion and Discussion

In this study, which was conducted to determine the opinions of the final year students studying in the physical education department at the university about the anatomy course and whether they applied what they gained in this course, it was concluded that the students were aware of the importance of the anatomy course, but the methods and techniques taught as content were insufficient.

It was concluded that all the students of the physical education department were important for the department they studied anatomy. 25 pre-service teachers found the importance of the anatomy course as they will learn the human structure in this course. 15 pre-service teachers stated that they should know the anatomical structure in terms of practicing physical activities. The anatomy course content is also compatible with this result. It has been concluded that when they become physical education teachers, it is necessary to know the anatomy of the human being in order to ensure coordination. 2 pre-service teachers stated that the practices and physical activities to be done in the physical education lessons are important for the protection from the accidents that may occur during the applications and for being able to intervene in the occurrence of the accident.

Considering the results of another finding, "How should the anatomy course content be?", there are 20 pre-service teachers who stated that the content of the anatomy course should be functional. The functionality has the same content structure as the application. It was concluded that the contents described should be applied. Learning becomes more permanent by practice. Eight pre-service teachers stated that the subjects of the course content should go from simple to difficult. 5 Pre-service teachers stated that the subjects should go from general to specific. As a result, while planning the education and training programs, the subjects for all fields should be ordered from general to specific, from simple to complex, so that the teachings should be permanent. In the studies, it is thought that the use of three-dimensional programs based on models, atlas, cadavers and visual content will be more effective in anatomy lessons. This situation enables students in faculties that provide medical education based on an integrated education system to be more permanent and to remember what they have learned in their later professional life more quickly. The permanence of teaching is ensured by applying what they have learned (Shaffer, & Small, 2004).

When the findings of physical education teaching department students need practice in anatomy lessons, only 2 pre-service teachers stated that there was no need. This is quite surprising. It is quite surprising that there is a student opinion stating that a course that should include theory and practice does not need practice. 46 pre-service teachers stated that there is a need for practice in anatomy lessons. It is a course in which the anatomy course is based on rote learning and the theoretical knowledge is high. It was concluded that the knowledge learned in this course should be applied. The result obtained from this finding is supported by studies. Çimen, Karaya, and Third, in their study conducted in 2018, concluded that the human anatomy and physiology course is difficult and students are prejudiced against this course.

The aim of the courses taught in universities is to ensure that all the knowledge they have learned is used in their future professional life. It is very pleasing that the students express that they will use the knowledge learned in the Anatomy course in their professional life. The subject of anatomy is a field intertwined with physical education. It is very important that the gains learned in this course can be used in their professional lives. Eight pre-service teachers stated that not all

of the information in the anatomy course content is important, so they would not use all of them. Thirty of the pre-service teachers stated that they wanted to be a physical education teacher, and 18 of them wanted to be a trainer. They are similar fields in both professions. They stated that the pre-service teachers needed what they learned in the anatomy course in their professional life. As they have to know the life mechanism of human beings and human nature due to the profession they want to do, it has emerged that they think that the gains learned in the anatomy course will be useful in their professional life. The studies should be effective in terms of the usability of the information learned in the education process. The professional development of the physical education teacher should be adjusted according to the practices of adjusting our education path according to the best in Europe and the usability of the education given at the undergraduate degree should be increased (Eurydice, 2013).

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