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PAGES: 95-115

ORIGINAL PDF URL: <https://dergipark.org.tr/tr/download/article-file/3245859>

The Congruence of Teaching Styles Used by Turkish Physical Education Teachers with National Curriculum' Goals and Learning Outcomes

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Original Article

Received: 05.07.2023

Accepted: 25.08.2023

DOI: 10.47778/ejsse.1323148

Online Published: 30.09.2023

Abstract

This study was carried out to determine the congruence of the teaching styles used by Turkish physical education teachers in their lessons with the goals and learning outcomes of the curriculum they are responsible for taking into consideration. The case study design was used and eight physical education teachers serving in middle and high school grades in the central districts of a metropolitan city were involved in this study. In the study, a semi-structured interview form prepared by the authors was used to reveal which teaching styles physical education teachers prefer in their lessons, the reasons for their preference, and the congruence between the teaching styles they use in their lessons and the goals and learning outcomes of the curriculum. Content analysis was used to analyze the data. The results of the study indicated that physical education teachers generally preferred reproduction cluster teaching styles to vary extents and mostly used the practice style. Effective skill learning and effective time management were found to be the most mentioned reasons for teachers to prefer the practice and the command styles more in their lessons. The study additionally revealed that when selecting teaching styles for their lessons, physical education teachers did not take into consideration the goals and learning outcomes of the curriculum. Based on the results of the study, it is recommended that professional development programs be designed to enhance the curriculum literacy of physical education teachers and to inform them of the teaching styles that are aligned with certain goals and learning outcomes.

Keywords: Curriculum goals and learning outcomes, Physical education curriculum, Physical education teachers, Teaching styles

Türk Beden Eğitimi Öğretmenlerinin Derslerinde Kullandıkları Öğretim Stillerinin Öğretim Programlarının Amaç ve Kazanımları ile Uyumu

Öz

Bu çalışma, Türk beden eğitimi öğretmenlerinin derslerinde kullandıkları öğretim stillerinin dikkate almakla sorumlu oldukları öğretim programının amaç ve kazanımlarıyla uyumunun belirlenmesi amacıyla gerçekleştirilmiştir. Durum çalışması deseninin kullanıldığı bu çalışmaya bir büyükşehir merkez ilçelerinde ortaokul ve lise öğretim kademelerinde görev yapan sekiz beden eğitimi öğretmeni dahil edilmiştir. Çalışmada, beden eğitimi öğretmenlerinin derslerinde hangi öğretim stillerini tercih ettikleri, tercih etme gerekçeleri ve derslerinde kullandıkları öğretim stilleriyle öğretim programının amaç ve kazanımları arasındaki uyumu belirlemek üzere araştırmacıların hazırladığı yarı yapılandırılmış görüşme formundan yararlanılmıştır. Verilerin çözümlenmesi amacıyla içerik analizi kullanılmıştır. Çalışmanın sonuçları, beden eğitimi öğretmenlerinin genel olarak sunuş kümesi öğretim stillerini değişen oranlarda tercih ettiklerini ve esas olarak da çoğunlukla alıştırma stilini kullandıklarını göstermiştir. Öğretmenlerin alıştırma ve komut stilini derslerinde daha fazla tercih etmelerinin en sık bahsedilen gerekçelerinin; etkili beceri öğrenimi ve zaman yönetimi olduğu belirlenmiştir. Çalışmada ayrıca, beden eğitimi öğretmenlerinin dersleri için öğretim stili seçerken öğretim programının amaç ve kazanımlarını kendilerine ölçüt almadıkları belirlenmiştir. Çalışma sonuçlarından yola çıkarak beden eğitimi öğretmenlerinin, dikkate almakla yükümlü oldukları öğretim programı hakkında okuryazarlıklarının artırılması ve belirli amaçlar ve kazanımlarla uyumlu öğretim stilleri hakkında bilgilendirilmesi amacıyla mesleki gelişim programlarının düzenlenmesi önerilmektedir.

Anahtar Kelimeler: Beden eğitimi öğretmenleri, Beden eğitimi öğretim programı, Beden eğitimi öğretmenleri, Öğretim stilleri

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INTRODUCTION

The national curriculum of various countries encourages teachers to embrace diverse pedagogical approaches (Chatoupis, 2018). Moreover, physical education (PE) teachers are required to use appropriate pedagogies to achieve the goals stated in the curriculum (Goldberger & SueSee, 2020). In Türkiye, it has been highlighted that teachers must utilize suitable pedagogical tools (teaching models, strategies, and styles) to achieve the lesson learning outcomes in the PE curriculums since 2006 for the middle school level and since 2009 for the high school level (Ministry of National Education [MoNE], 2006, 2009, 2013, 2018). In this vein, it is stated that the Spectrum of Teaching Styles (the Spectrum) (Mosston & Ashworth, 2008), which ensures that lesson objectives and teacher actions are aligned (Goldberger et al., 2012), is a pedagogical toolbox that PE teachers can benefit from to meet the diverse needs of students and the different educational objectives (psychomotor, cognitive, affective) of the curriculum (Sanchez et al., 2012). In other words, it can be stated that the Spectrum is an efficient pedagogical toolbox that offers 11 alternative ways to meet the diverse learning needs of students, to ensure that lessons are more inclusive, and to enable students to attain multidimensional learning outcomes.

The heart of the Spectrum theory is the premise that teaching behavior consists of a chain of decision making. Who makes certain decisions for teaching episodes distinguishes one teaching style from another. In this regard, there are three sets of decisions that must be made for each teaching episode. These are pre-impact (planning/preparation), impact (action/implementation), and post-impact (assessment/feedback) sets. These decisions form the structure of a particular teaching style and there are distinct teaching styles depending on the people (learner or teacher) who make the decisions in these decision sets. In other statements, what characterizes teaching styles from each other is that each style has a distinctive decision-making structure. In other statements, what characterizes teaching styles from one another is that each style has a distinctive decision-making structure. In this regard, there are 11 teaching styles in the reproduction (Command [A], Practice [B], Reciprocal [C], Self-check [D], Inclusion [E]) and production cluster (Guided Discovery [F], Convergent Discovery [G], Divergent Discovery [H], Learner Designed-Individual Program [I], Learner Initiated [J] and Self Teaching [K]) of the Spectrum. Each teaching style contributes to specific developmental opportunities for learners and to the achievement of different educational objectives due to its unique decision structure that distinguishes it from other teaching styles. However, to mention specifically cognitive clusters, when teaching styles in the reproduction cluster are used, the objective of teaching is the reproduction of certain known concepts/skills by students. On the other hand, in the cluster of production styles, the objective of instruction is to enable students to discover new concepts/skills that they did not previously know (Mosston & Ashworth, 2008).

PE teachers have a special opportunity to enhance student learning in psychomotor, cognitive, and affective/social domains (Garn & Byra, 2002). However, this requires PE teachers to benefit from alternative ways of teaching their lessons. In this sense, the use of various teaching styles in the

reproduction and production cluster of the Spectrum facilitates the achievement of diverse learning outcomes in the curriculum (Goldberger et al., 2012; Kulinna & Cothran, 2003; Sympas et al., 2017). For instance, it is probable to notice that the national PE curriculum in Türkiye (MoNE, 2008) has multi-faceted goals when the current middle school curriculum is reviewed. Accordingly, the goal of the curriculum is stated as *“preparing students for the higher level of education by developing movement skills, active and healthy life skills, concepts and strategies that they will utilize throughout their entire lives, as well as self-management skills, social skills and thinking skills”*; in accordance with this goal, it is expressed that students enrolled in the PE lesson are expected to attain eight curriculum outcomes including psychomotor, cognitive, affective, and social learning domains. In order to accomplish this, it was reported that teachers must use teaching styles compatible with the learning outcomes. In addition, it was pointed out that the use of only traditional teacher-centered teaching approaches in the lessons would not be sufficient to meet the learning outcomes in the curriculum and that learner-centered teaching approaches must be utilized (MoNE, 2018).

Until now, several quantitative self-reported studies have been conducted to reveal the teaching styles used by PE teachers. Although the results of these studies carried out in countries such as Türkiye, Korea, France, England, Portugal, Canada, ABD, Finland, Australia, and Greece showed that reproduction cluster teaching styles were generally used more frequently, teachers in these studies claimed that they also used various production cluster teaching styles (Cothran et al., 2005; İnce and Hünük, 2010; Jaakkola and Watt, 2011; Kulinna and Cothran, 2003; SueSee et al., 2018; Sympas et al., 2016). Based on the results of their cross-cultural study, Cothran et al. (2005) stated that additional methods including different data sources such as observation and qualitative interviews need to be used to verify the results of the self-reported study. Because studies on observed teaching styles have dramatically shown that PE teachers in fact use few teaching styles in their lessons (Curtner-Smith et al., 2001; Saraç-Yılmaz et al., 2005; SueSee & Barker, 2019; SueSee et al., 2019). Especially in these studies, it was reported that a considerable percentage of PE lessons were taught using the practice style, while other teaching styles were not used at all or were used to a minimal extent. For instance, SueSee and Barker (2019), in their study conducted with Swedish PE teachers, firstly, the teaching styles used by 42 teachers who attended the quantitative part of the study were determined by means of a questionnaire. Subsequently, the systematic observation was used to identify the teaching styles used by the six volunteer teachers in their lessons. According to the results obtained from the questionnaire, it was reported that the most used teaching styles of the PE teachers were practice, divergent discovery and learner designed, respectively. On the other hand, the systematic observation results of the lessons of six teachers showed that the most used teaching style was practice, in addition to a fairly limited use of divergent discovery and self-check styles. In conclusion, the systematic observational results of the study revealed that production styles could not be used to the extent claimed by the teachers.

In the literature, qualitative research to determine the teaching styles used by PE teachers in their lessons is quite limited. In such a study, Sympas et al., (2017) attempted to uncover the underlying

factors influencing the pedagogical choices of ten PE teachers in Greece toward reproduction and production approaches. The teachers who attended the study expressed that they generally preferred the reproduction approach in their lessons. Only three of the teachers claimed that they used the production approach. The authors' results also showed that PE teachers' prior K-12 experiences (as a student themselves) influenced their teaching preferences and that the in-service professional development programs they were obliged to attend had a rather weak impact on their lesson practices. It was found that some of the reasons that propelled teachers to use the reproduction approach were prioritizing the development of students' psychomotor skills, control, and time management, and that they thought they could achieve their prioritized goals more effectively with the reproduction approach. On the other hand, so far, it has not been enlightened whether the teaching styles used by Turkish PE teachers are congruent with the goals and learning outcomes of the national curriculum that they are responsible for taking into consideration. Furthermore, the reasons why Turkish PE teachers prefer reproduction cluster teaching styles more are not explicitly known. Therefore, it is considered that this present study will eliminate significant ambiguity. Accordingly, the purpose of the current study was to determine the congruence of the teaching styles used by the PE teachers in their lessons with the goals and learning outcomes of the national curriculum that they are responsible for considering. The following study questions were addressed for this purpose:

1. Which teaching styles are used by PE teachers in their lessons?
2. For what reasons do PE teachers prefer to utilize these teaching styles?
3. Are the teaching styles that PE teachers use in their lessons congruent with the goals and learning outcomes of the national curriculum?

METHOD

Study Design

In the present study, a case study design, which is a very common qualitative research design, was used to address which teaching styles PE teachers use in their lessons and how these styles are coherent with the goals and learning outcomes of the national curriculum. A case study is an in-depth, comprehensive description and analysis of a restricted phenomenon such as a program, institution, individual, process or a social unit (a person, group, or community). In other words, it is characterized as an in-depth description and analysis of a bounded system (Merriam, 2009). Case studies are a preferable method when (i) the main study questions are "how" or "why"; (ii) the researcher has little or no control over behavioral phenomena; and (3) the focus of the study is a current phenomenon (Yin, 2014).

Study Group

The underlying idea of qualitative research is the purposeful selection of participants or settings that will optimally contribute to the understanding of the problem and the research question (Creswell & Creswell, 2018). PE teachers to be selected for the study were determined according to the maximum variation sampling method, which is one of the purposive sampling methods. In this sampling method, the purpose is to determine whether there is any common phenomenon among diverse situations and to address various dimensions of the research problem depending on this diversity (Yıldırım & Şimşek, 2018). In this regard, it was ensured that the volunteer PE teachers involved in the current study differed from each other in terms of gender, ages, school type, and years of employment. Nonetheless, all teachers selected in the study were working in an urban area.

Table 1. Information about the characteristics of the PE teachers who attended the study

Codenames	Gender	Ages	School type	Year of employment	The source of their knowledge regarding teaching styles	Their opinions on the sufficiency of the courses they attended regarding styles
Sevgi	Female	36	Middle School	12	PETE program	Not sufficient
Hümeýra	Female	54	High School	28	PETE program	Sufficient
Cengiz	Male	49	High School	26	In-service programs	Not sufficient
Görkem	Male	38	High School	10	PETE program	Sufficient
Hande	Female	43	Middle School	17	PETE program	Sufficient
Seher	Female	46	Middle School	20	PETE program	Not sufficient
Buğra	Male	36	High School	11	PETE program	Not sufficient
Yetkin	Male	37	Middle School	12	PETE program	Not sufficient

As shown in Table 1, the eight PE teachers interviewed were coded with pseudonyms as Sevgi, Hümeýra, Cengiz, Görkem, Hande, Seher, Buğra and Yetkin. Four of the PE teachers enrolled in the study were female and four were male. Their ages ranged from 36 to 54 years and four of them were serving at the middle school level and four at the high school level. Teachers' years of employment ranged from 10 to 28 years. Furthermore, it is understood that seven of the teachers learned teaching styles during the physical education teacher education (PETE) program and one of them learned teaching styles during in-service programs. Finally, five of the teachers stated that the courses they attended regarding teaching styles were not sufficient, while the other three indicated that the courses they attended during the PETE program regarding teaching styles were sufficient.

Data Collection

In all methods of qualitative research, part and sometimes the whole of the data is collected through interviews. The most common form of interview is a face-to-face interview in which one person obtains information about a subject from another (Merriam, 2009). Semi-structured interviews

were carried out with the PE teachers within the scope of the study. In semi-structured interviews, interviewees are encouraged to talk about the topic(s) in elaborate and detailed ways. The interviewee is allowed to express his/her opinion in any manner he/she wishes. The researcher generally has only a framework of the questions they intend to ask (Howitt, 2019). In this study, a semi-structured interview form was prepared to determine (i) *which teaching styles PE teachers prefer in their lessons*, (ii) *the reasons why they prefer them*, and (iii) *the congruence between the teaching styles they use in their lessons and the curriculum goals and learning outcomes*. This interview form was then shared with a faculty member in the subject area of PE and sports pedagogy and a PE teacher and feedback was obtained on the clarity and sufficiency of the questions.

Additionally, in the current study, sample scenarios of 11 teaching styles, descriptive characteristics of each teaching style, and sample task sheets and lesson plans were provided to facilitate PE teachers to recognize the names of teaching styles and identify which teaching style matches the teaching practices. Before starting the interview questions, the teachers were given an adequate amount of time to review the documents provided to them and when they considered themselves prepared for the interview, the interview was initiated. The PE teachers were provided with the subject and purpose of the study, and scheduled appointments were taken in advance for the day and hour of the interviews. The interviews were carried out face-to-face in the teachers' own schools and in their private rooms according to their requests. Before the interview, the teachers were stated that voice recordings would be made, and the interview was initiated with their consent. The interviews lasted approximately 30 minutes.

Ethical Approval

The required permission for the conduct of the study was obtained from Balıkesir University Social Sciences and Humanities Ethics Commission (Decision No: 2022/06).

Data Analysis

The general purpose of qualitative data analysis is to extract meaning from textual and visual data. This process entails dividing the data into sections and parts and assembling them together again. Content analysis was utilized to analyze the data in the study. Content analysis means the careful, detailed, systematic examination and interpretation of a certain body of material in order to identify patterns, themes, assumptions, and meanings (Lune & Berk, 2017). The main purpose of content analysis is to uncover the concepts embedded in the data and the relationship between these concepts through coding. The procedure in this analysis is to assemble similar data within the framework of certain concepts and themes and to organize and interpret them in a way that the readers can understand (Yıldırım & Şimşek, 2018). For the analysis of the interviews, first of all, the voice recordings were converted into computerized transcripts and the teachers were assigned code names. First, the whole transcript was read and reviewed in detail. Subsequently, the data were coded, and the word or words assigned as codes were marked. Themes were formed in accordance with the codes assigned. To illustrate, the concepts of “*effective skill learning*”,

“effective time management” and *“student control”* were identified as codes, and then these codes were arranged into the theme of *“subjective reasons for preferring the practice and the command styles over the others”*.

Validity and Reliability

Various strategies were used by the researchers to ensure the validity and reliability of the study (Creswell & Creswell, 2018; Merriam, 2009; Yıldırım & Şimşek, 2018). Before the interviews were conducted, the interview form prepared by the researchers was presented to a PE teacher and a faculty member to obtain feedback on the clarity and adequacy of the questions. Moreover, the teachers to be selected for the study were selected from individuals who would contribute to the purpose of the study.

Before each interview with the teachers, in order to make them feel comfortable and to ensure a warm and natural atmosphere, they were informed about the purpose of the study, acquaintance conversations were made, it was stated that their personal information would remain anonymous, and a conversational language was used to facilitate a conversational atmosphere. In this manner, a climate of trust was cultivated with the teachers.

All interviews were held in the teachers' own rooms (sports room) in line with the requests of the PE teachers who attended the study. Besides, during the face-to-face interviews, teachers' responses to the questions were constantly confirmed, and if there were any misunderstandings by the teacher or the researcher, they were immediately corrected and confirmed.

Multiple researchers experienced in qualitative research separately examine the data gathered as a consequence of the interviews carried out with teachers, formed codes, and then discussed each code and theme to ensure a group consensus. Furthermore, the study design, the characteristics of the teachers enrolled in the study, how the data were collected and the data collection tool, how the data were analyzed, and how the results were arranged were explained in detail. Finally, the results obtained from the interviews were reported under the relevant codes and themes through direct expressions without the researchers' interpretation.

RESULTS

The results obtained by analyzing the interviews with PE teachers within the framework of the present study are organized into three themes: (i) *teaching styles used in the lessons*, (ii) *subjective reasons for preferring the practice and the command styles over the others*, and (iii) *criteria considered in selecting a teaching style for a given lesson*.

Teaching styles used in lessons

In order to uncover which teaching styles the PE teachers who participated in the study prefer in their lessons and to what extent they utilize teaching styles in their lessons, the questions “*Which teaching style(s) do you think you use in physical education and sports lessons?*”, “*Which teaching style(s) do you think you use mostly?-Can you describe a typical lesson briefly?*”, “*Which teaching style(s) do you think you use less often?-Can you briefly describe?*” were asked. In accordance with the opinions of the teachers, “*Teaching styles used in lessons*” was determined as the first theme and the codes obtained under the theme are shown in Table 2.

Tablo 2. Teaching styles used in lessons

Codes	Sevgi	Hümevra	Cengiz	Görkem	Hande	Seher	Buğra	Yetkin
Style A	Sometimes	Sometimes	Mostly	Mostly	Sometimes	Mostly	-	-
Style B	Mostly	Mostly	Mostly	Mostly	Mostly	Mostly	Mostly	Mostly
Style C	Sometimes	-	-	-	-	-	-	-
Style E	-	-	-	-	Sometimes	-	-	-

When Table 2 is seen, it is recognized that all of the PE teachers who participated in the study use reproduction cluster teaching styles (excluding self-check teaching style) in their lessons, whereas they do not utilize production cluster teaching styles at any time. Eight PE teachers who attended the study expressed that they mostly used the practice style in their lessons. Besides, it is realized that the other teaching style that teachers Cengiz, Görkem, and Seher stated that they used mostly along with the practice style was the command style. Furthermore, along with the dominance of the practice style, teacher Sevgi reported using sometimes the command and the reciprocal styles, teacher Hümevra stated that she used now and then the command style alongside the practice style, and teacher Hande mentioned that she utilized sometimes the command and the inclusion styles as well as the practice style.

For instance, Cengiz, one of the teachers who expressed that he mostly used both command and practice styles, said, “*I can tell you that the percentage of my use of practice and command styles in the lessons is about 60% to 40%... First, I demonstrate. I say this is the core of the movement. If you do this, it will be like this, if you do that, it will be like this, our hand and arm must be like this, the position of our foot must be like this. After demonstrating and describing it, yes, it's your turn, please do it. Then I correct your mistakes. Your hand must be like this, your arm must be like this, your foot must be like this...*” He described a common lesson, which is recognized as the practice

style. Cengiz also stated, *"At the beginning of the lesson, we use the command for order activities. Since the students do not learn the order activities in middle school, I spend nearly 6 weeks on these activities. At least 15 minutes, 20 minutes."* He mentioned his typical lessons in which he used the command style.

Expressing that he only uses the practice style in his lessons, teacher Buğra shared, *"We demonstrate first. For example, I first explain the inside-foot passing, then I demonstrate it, then I let them do it. I give a verbal description; I model the movement. Then I tell the children, Now, let's see, let's practice it... While the children are practicing, I provide them with individual corrections, etc. Typically, this is the way our lessons happen."* summarized a general PE lesson with these sentences. Yetkin, another teacher who stated that he only used the practice style, stated, *"I first present the subject matter to the children on the monitor and then I demonstrate the techniques I want to teach. The children first see it visually. They visualize it, then I demonstrate it myself, and then I attempt to get the children to do it."* He described a typical lesson with these sentences.

Hümeysra indicated that besides the practice style, she also uses the command style for order activities at the beginning of the academic year and stated, *"...We also use the command style. In order exercises, turn right, turn left, count in place...We do them...In pairs, fours, threes, ceremonial march, wheel to the right, wheel to the left, we give them by command...We generally teach them at the beginning of the semester."* Expressed this situation in her words.

Hande noted that in addition to the practice style, she also sometimes used the inclusion style in her lessons and explained, *"We also use the inclusion style from sometimes...For example, we demonstrated the serve in volleyball. For example, those who can serve from 3 meters switch to 6 meters. Those who can throw from 6 meters pass to the 9-meter line. We also give everyone the option to improve themselves in this way. Because not everyone can do it at the same level. Their arm strength is not enough, their coordination is not enough... During this process, they evaluate themselves."* With these sentences, she shared an example of teaching episodes specific to the inclusion style. The fact that teacher Hande provided students with varying difficulty options for the same movement skill and ensured that they had the opportunity to check themselves in this process means that she carried out teaching episodes that fit the decision structure of the inclusion style to a considerable extent (although she did not use task sheets).

Lastly, Sevgi mentioned that in addition to the practice style, she sometimes uses the reciprocal style: *"I mostly use the practice style in my lessons. I occasionally use the reciprocal style... As for the reciprocal style, the year I was involved in a project, I actually tried to use it. Especially at that semester, the subject matter was volleyball. I asked the children to check each other while they were making passes on the wall, overarm pass and bump pass. In this sense, the student's peer can sometimes provide what you want to give much faster. In other words, they can learn faster through their peers. Or he tries not to make the mistake he sees in her. But this style does not always work, that is, it does not fit in the teaching of every movement. I mean, it depends on the subject matter. You have two hoops in basketball, but in volleyball the whole wall is mine. In that sense, you can*

use somewhat different styles in volleyball teaching.” stated that she was able to use the reciprocal style in the teaching of movement skills such as overarm pass and bump pass in volleyball, although not in the teaching of every skill.

Subjective reasons for preferring the practice and the command styles over the others

In order to determine the subjective reasons underlying the use of the practice and the command styles more in their lessons by the PE teachers enrolled in the study, the questions “*Why do you prefer these teaching styles more than other teaching styles in your lessons?*”, “*What are your primary reasons for teaching your lessons in this way?*”, “*Do you think that the practice style (and the command) is more effective?*” were asked. As a result of the teachers’ opinions, the theme of “*subjective reasons for preferring the practice and the command styles over the others*” and the codes obtained are presented in Table 3.

Table 3. Subjective reasons for preferring the practice and the command styles over the others

Codes	Sevgi	Hümeýra	Cengiz	Görkem	Hande	Seher	Buğra	Yetkin
Effective skills learning		*	*	*			*	*
Effective time management	*		*	*		*	*	
Student control						*	*	
Student readiness			*			*		
Lack of materials						*		
Economical					*			

As shown in Table 3, a considerable number of the PE teachers who attended the study stated that because they thought that they could teach skills more effectively (n=5) and use time more efficiently (n=5), they used practice and command styles mostly in their lessons. In addition, the other stated reasons were that these styles ensured that they kept students under control (n=2) and that they consider that students’ readiness levels are poor for the use of the other styles (n=2). One teacher also reported that the lack of adequate amount of sports equipment in the school in parallel to the number of students in his classes was a factor in his preference for the command and the practice style. Lastly, one teacher linked her preference for the command and the practice style to the fact that these styles were more economical than the other styles. In this regard, the highlights of the teachers’ opinions are as follows:

Teacher Buğra stated, “*Because we think we can teach better, because it is effective in terms of time management, because it is effective in terms of classroom management.*” Teacher Cengiz said, “*For example, if I use the reciprocal, it would not be an effective work. A lesson is over until I explain it. When I demonstrate and practice and then provide corrections, it is more effective in this way.*” With these sentences, the teacher elaborated on why he used the command and the practice styles more in his lessons. Hümeýra, on the other hand, justified her preference for the command and the practice style by saying, “*...The teacher should correct the children. I mean, children don't learn anything when you leave them alone...*”

Görkem explained the reason for preferring the command and practice style more in his lessons as follows: “...*We use the command and the practice more because they are economical in terms of time. We want to manage the process faster and we want to convey a lot of things to the child in a short period of time here...*”, he stated that these styles facilitated him to use his time more efficiently.

On the other hand, teacher Seher expressed the reasons for using the practice and command style more in her lessons as follows: “...*For example, unfortunately, we cannot use some styles. I mean the child's readiness. The material issue, and the time issue... We try to use time effectively. In 40 minutes, for example, if we try to teach with the guided discovery style, we will have to teach the same subject matter for two weeks, three weeks. We use command and practice styles because they are more effective in terms of time management, keeping students under control, students' readiness levels...*”

Teacher Hande stated that providing task sheets to students, especially in other teaching styles, caused problems in terms of the class sizes and school facilities: “*Using task sheets in certain teaching styles can be troubling in terms of wasting paper. Also, our classes are crowded. I mean, only one of the classes I teach is a class of 23 students, the others are always between 31 and 38 students, and giving task sheets to 32 students and I teach 9 classes is a huge waste. It is economically challenging for the school...*” stated and justified the use of the limited teaching style in the Spectrum with the economic restrictions of her school.

Criteria considered in selecting a teaching style for a given lesson

In order to determine which criteria PE teachers, consider when choosing a teaching style for a certain lesson and whether they take into account the goals and learning outcomes of the PE curriculum they are responsible for implementing, the questions “*Do you take into account the goals and learning outcomes of the curriculum when choosing a teaching style to use in a particular lesson? If yes, how? If no, which criteria do you consider, and why?*” were asked. According to the opinions of the teachers, the theme of “*criteria considered in selecting a teaching style for a given lesson*” was determined and the codes under the theme are included in Table 4.

Table 4. Criteria considered in selecting a teaching style for a given lesson

Codes	Sevgi	Hümeýra	Cengiz	Görkem	Hande	Seher	Buğra	Yetkin
Subject matter	*	*		*		*		
Sports materials	*			*		*	*	*
Student characteristics			*	*	*			
Class size			*	*		*		
Teacher characteristics								*

According to Table 4, it is realized that the criteria that PE teachers consider in the selection of teaching styles for their lessons are primarily the subject matter (n=4) and the available sports materials of the school (n=4), followed by student characteristics (readiness, interest, willingness,

age level, etc.) (n=3) and the number of students in the classes they teach (n=3). One of the teachers who attended the study also stated that the teacher's characteristics (ability) were also determinative in the selection of teaching style. On the other hand, it was determined that for all teachers involved in the study, the goals and learning outcomes of the curriculum were not a criterion they considered while choosing a teaching style. The highlights of the teachers' views are reported below:

Teacher Sevgi pointed out the subject matter and the school's available sports material rather than the goals of the curriculum with the following statements: *"In the choice of teaching style, the subject matter of the lesson and the material resources of the school rather than the goals and learning outcomes of the curriculum."* Teacher Hümeýra stated, *"We do not take into account the goals and learning outcomes of the curriculum in any way. No, we do not look at them. They are very meaningless. It is mentioned there, learning outcomes, blah, blah, blah. I look at the subject matter of the lesson."* Hümeýra stated that the goals and learning outcomes of the curriculum are not a crucial factor for her when selecting a teaching style and that she makes decisions based on the subject matter.

Cengiz stated that student characteristics were the criterion with the following statements: *"For me, the most important thing rather than the goals and learning outcomes of the curriculum is the characteristics of the students, which is why I conduct the lessons in this way."* On the other hand, Yetkin emphasized teacher characteristics with the following expressions: *"Actually, to speak a little bit realistically, it is in fact according to the characteristics of the teacher rather than the goals of the curriculum...The curriculum is just on paper...We can say that the teacher's abilities are determinant."*

Yetkin also mentioned the issue of materials: *"...material is a very crucial requirement when choosing a teaching style. It is an important issue, an important criterion. I mean, it certainly determines how the lesson will be taught. If you have one soccer ball at school, you can design a lesson accordingly. If you have ten soccer balls, you can teach based on that..."* Teacher Sevgi indicated that the criteria she considered while choosing a teaching style were the subject matter and the existing sports materials: *"... The teaching style I will use differs according to the subject matter of the lesson. Also, the school's available sports material affects how I teach the lesson."*

Görkem emphasized factors such as students' interest in PE and the class size, in addition to the subject matter and sports material facilities. He expressed his opinion as follows: *"The subject matter to be addressed in the lesson is important. Student characteristics, their interest and engagement, class size, available school equipment and materials"* Similarly, teacher Seher pointed out that *"...When choosing a teaching style, the priority for me is the subject I will teach and the available equipment of the school. Class size is another criterion."* She noted similar issues with her statements. Finally, teacher Hande said, *"For me, the criteria for choosing a teaching style are the characteristics of the students, class level, and age. Age level is the most determinant for me."* She emphasized student characteristics with her expressions.

DISCUSSION

The results from the present study revealed that the PE teachers favored only the reproduction cluster teaching styles in their lessons (except for the self-check style). In particular, however, it was concluded that the most common teaching style that dominated the lessons of all the PE teachers attending the study was the practice style. In addition to the practice style, the second favorite teaching style of the PE teachers was the command style, however with varying prevalence. Thirdly, the teaching styles reported to be sometimes used by the two teachers were identified as the reciprocal and the inclusion styles. Teachers who attended the current study stated that they had never used F—K teaching styles, which contrasts with the findings of quantitative self-reported studies in the prior literature (Cothran et al., 2005; İnce & Hünük, 2010; Jaakkola & Watt, 2011; Kulinna & Cothran, 2003; SueSee et al., 2018; Sympas et al., 2016). However, the present study's findings significantly align with those of systematic observation studies involving PE teachers from various countries, including Türkiye (Curtner-Smith et al., 2001; Saraç-Yılmaz et al., 2005; SueSee & Barker, 2019; SueSee et al., 2019). Finally, this study confirmed that the reproduction cluster teaching styles in general, and the practice style in particular, are commonly used in PE lessons. Considering these results, it can be argued that the PE teachers who attended the study, in the subheading of the issues to be taken into consideration in the implementation of the curriculum, in relation to the pedagogical approaches that must be used in the lessons, *"Teachers must use the most appropriate ... methods/styles ... for students to attain the learning outcomes of the lesson."* and *"... the use of approaches based only on traditional teacher-centered teaching will not be sufficient to achieve the learning outcomes of this curriculum. Learner-centered teaching approaches must be utilized."* (MoNE, 2018). It could be said that they in a sense do not take these principles into consideration for their lessons or that their curriculum literacy is at a poor level.

As a result of the current study, it was found that the factors that prompted PE teachers to use the practice and the command styles more frequently were primarily that they thought they could teach skills better with these teaching styles and that they could use lesson time more efficiently. Other significant factors included the belief that their students' readiness level was insufficient for proper implementation of other teaching styles and the notion that they could better control their students by using these teaching styles. The lack of sports material in their schools in comparison to the number of students enrolled in their classes and the fact that they believed these styles were more cost-effective than other styles requiring the use of task sheets were the other subjective factors mentioned by two teachers. These findings alignment in with the relevant literature. For instance, Cothran and Kulinna (2008), in their qualitative study, reported that the three factors that influenced teachers to use the direct instruction model more were controlling students, using time efficiently, and believing that direct instruction was more appropriate for providing knowledge to students. Sympas et al. (2017), in their qualitative study, reported that some of the factors prompting teachers to use the reproduction approach were prioritizing the development of students' psychomotor skills, classroom control and time management. The fact that PE teachers prefer the

practice and the command styles more than the other nine teaching styles in the spectrum can be expressed by the fact that they prioritize psychomotor learning outcomes more than cognitive or affective/social learning outcomes in their lessons. Similarly, İnce and Hünük (2010) reported that Turkish PE teachers preferred the command and practice style more, and this may be since teachers prioritize sport-specific skill development in their lessons. Demirhan et al. (2008) conducted a study with Turkish PE teachers and claimed that the fact that PE and sports activities are mostly psychomotor and that PE teachers are coaching-oriented may be the reasons that prompt them to use the command and the practice styles more frequently. Jaakkola and Watt (2011) indicated that a potential reason why Finnish PE teachers use the command and the practice styles mostly may be that they focus on teaching motor skills rather than social or cognitive learning outcomes in their lessons and therefore prefer styles that focus on teaching motor skills. Curtner-Smith et al. (2001) also revealed that PE teachers in the United Kingdom focus almost solely on enhancing their students' movement skill performance. Chatoupis (2018), as a result of a review study based on data from four continents (North America, Europe, Asia, and Australia) and 15 different countries published between 2000 and 2016, argued that the development of psychomotor skills and sporting skills represents one of the primary objectives of PE lessons all over the world, and in this context, PE teachers use the command and the practice teaching style extensively, perhaps because they are interested in developing their students' psychomotor skills competence and teaching competitive sport. Furthermore, the results of the current study are consistent with the results of the review by Chatoupis (2018), published between 2000 and 2016 and based on data from four continents (North America, Europe, Asia, and Australia) and 15 different countries.

In addition, in present study, the PE teachers claimed that the insufficient number of sports materials in their schools was another reason for their higher preference for the practice and command styles. This result related to sports materials represents one of the problems that are usually highlighted in studies conducted in Türkiye (Demirhan et al., 2008; Demirhan et al., 2014; Mirzeoğlu et al., 2019; Uğraş et al., 2019; Yılmaz et al., 2018). For example, Demirhan et al. (2008) reported that large class sizes and limited materials may be some of the factors that cause teachers to prefer command and practice styles more in their lessons. According to the teachers who were involved in this study, their schools did not have sufficient materials for the number of students enrolled in the classes they teach. It is assumed that this may possess a significant role in driving them to become more teacher centered. In addition, the insufficient number of materials can be a significant barrier to transferring decisions to students in other teaching styles (because each student will not have the material to practice at the same time). The other reason expressed by a teacher was that he thought that the requirement to use task sheets in other teaching styles would cause an economic burden on the school. This argument may be reasonable. Because the use of task sheets, especially from C style onwards, can be an essential factor in achieving the objectives related to subject matter and behavior.

In the study, it was determined that another interesting reason for teachers not using other teaching styles was that they believed that the present readiness level of their students was not sufficient for

the appropriate implementation of other styles. In other terms, the teachers participating in the study believed that their students are incapable of taking responsibility for decisions in other styles. This result may be logical from the PE teachers' point of view because as the teaching styles in the spectrum move from A to K, the student's decision-making responsibility increases. For example, Byra (2019) stated that even though styles the reciprocal, the self-check, and the inclusion are in the reproduction cluster, students' involvement in the decision-making process in these three styles is markedly different from styles the command and the practice. The author also suggested that the decisions assigned to the student in C—E styles represent the characteristics of student-centered teaching. For example, in the case of style reciprocal, Mosston and Ashworth (2008) reported that most students may initially find it challenging to engage in appropriate verbal behavior with their peers (because it is not part of prior learning experiences). The authors stated that offering detailed, objective feedback for a doer and using criteria to do so is a learning experience that most students are unfamiliar with. The authors report that learners require time to achieve this. On the other hand, it has been argued that in the initial period, this was a new experience for the PE teacher, which was different from the previous one, and it might be quite challenging for the teacher to give up the potential of feedback by interacting only with the observer student; however, once the purpose of the style was recognized, it was suggested that it would eventually become one of the teaching styles that teachers and students would experience in the learning-teaching process.

In conclusion, it can be assumed that the PE teachers participating in this study have a limited level of literacy about the Spectrum theory. In this context, the fact that they believe that students are unable to undertake decisions in other teaching styles can be considered as evidence of that. However, on the contrary, the appropriate approach to enhance students' readiness for behaviors beyond the practice style should be for them to experience the decision responsibilities required by these teaching styles in their teaching episodes. This situation is not limited to students. For example, Zeng (2014) reported that the more skillful a teacher becomes in using different teaching styles, and thus in designing various learning experiences, the more skilled he/she will be in guiding/achieving various educational goals for his/her students.

As a result of this study, teachers indicated that the goals and learning outcomes of the curriculum were not a criterion they considered when deciding on the teaching style to utilize. This result is expected in accordance with the results obtained within the scope of the first and second research questions. This is because teachers predominantly use the practice style in their lessons, which will facilitate the acquisition of the psychomotor objectives and learning outcomes of the curriculum. Nevertheless, as researchers have noted, due to the multidimensional nature of the goals and objectives of the curriculum, it is not possible to accomplish all goals and objectives by utilizing a singular teaching style (SueSee, 2020). Therefore, PE teachers should make use of diverse teaching styles that are aimed at meeting the various objectives of PE lessons (Goldberger et al., 2012; Syrmpas et al., 2019). None of the teaching styles alone can meet all the subject matter objectives and behavioral objectives of education, and it is not possible to meet the learning needs of all students with a single teaching style. Each style has its specific learning focus; one style cannot

achieve the objectives of another style, and no single style can achieve all learning objectives. Rather, the use of diverse styles provides opportunities for different objectives to be met (Ashworth, 2020). None of the teaching styles is inherently superior or inferior to the other. On the contrary, each one may be more or less appropriate than another teaching style due to its distinctive learning conditions, depending on the objectives of the lesson, the context, and the students who participate in the lesson (Goldberger et al., 2012). Nevertheless, considering that a considerable majority of the PE teachers who attended this study (five teachers) stated that the previous courses they had received on teaching styles were not sufficient, it is understandable that they did not have a detailed understanding of the subject matter outcomes and behavioral outcomes of several teaching styles, and therefore, it is understandable that they lacked the ability to use the teaching styles that match the objectives and learning outcomes of the curriculum in their lessons.

Although the teachers indicated that they did not use many other teaching styles of the Spectrum, they claimed that they considered certain criteria when selecting a teaching style. In this regard, it can be considered that the criteria stated by the teachers may have directed them to use the practice and command style. These criteria were determined to be the subject matter and the existing sports materials of the school, student characteristics (readiness, interest, willingness, age level, etc.) and the number of students in the classes, and finally teacher characteristics (ability). In the literature review, Pangrazi and Beighle (2016) stated that some important factors to be considered in selecting an appropriate teaching style are (i) lesson objectives (skill development, knowledge, social behavior, etc.), (ii) activities to be taught, (iii) student characteristics (individual characteristics, interests, developmental levels, socioeconomic status, motivation and background, etc.), (iv) class size, (v) available equipment/materials and facilities, and (vi) teacher (abilities, skills and comfort). In this context, if the results obtained are interpreted, it can be argued that since they only intended to teach skill development and sports-related movements in their lessons, they believed that they could better accomplish this objective and teach the subject matter better with the practice and the command style. In addition, teachers have a bias that their students' existing level of readiness obliges them to use only the command and drill style. For this reason, they reported that they preferred these teaching styles more. Furthermore, the restricted materials in their schools prevent them from effectively using other teaching styles in which autonomy is relatively more than in command and practice styles, and finally, it can be suggested that whether teachers have the knowledge and skills to implement certain teaching styles and whether they are PE teaching-oriented or coaching-oriented may be influential in their preference for certain teaching styles.

CONCLUSION

The results of this study revealed that PE teachers in general prefer reproduction cluster teaching styles to varying degrees and mainly use the practice style. The reasons why teachers preferred the practice and the command style more in their lessons were that they believed that they could teach skills more effectively, they thought that they provided better time management and student control by using these styles, they believed that the obstacle to the use of other teaching styles was the poor

readiness of their students, they reported that sports materials were not sufficient for teaching styles with relatively high individuality, and they considered that these styles were economical. In the study, it was also determined that PE teachers did not consider the goals and learning outcomes of the curriculum as a criterion while selecting a teaching style for their lessons. Rather, the criteria they mentioned were the subject matter and the school's existing sports materials, student characteristics and the number of students in the classes, and finally teacher characteristics.

SUGGESTIONS

Quality professional development programs for PE teachers should be made offered to them in order to enhance their curriculum literacy and provide them with knowledge about teaching styles that are in accordance with certain goals and learning outcomes. In these professional development programs, teachers should receive both theoretical and long-term practical courses in a variety of teaching styles in the reproduction and production cluster in order to meet the curriculum's multifaceted objectives and learning outcomes. According to Joyce et al. (1992), teachers feel uncomfortable with a new teaching strategy until they have practiced it ten or more times. For this reason, the practical length of these programs should be designed long enough to ensure multiple opportunities to practice various teaching styles, first with a group of colleagues and then with their own students. In this process, PE teachers' receiving feedback from other members of the professional development group and program designers is another key to the efficiency of the process. However, although lack of experience with teaching styles (especially production cluster styles) is a factor that negatively affects teachers' use of different teaching styles, it is not the only reason. In this context, while designing professional development programs, teachers' prior beliefs about PE teaching should be considered and these beliefs should be taken into account in the design of the program. Furthermore, considering that most of the PE teachers involved in the study considered that the courses regarding teaching styles they had received in the past were insufficient, the connections between the subject matter and behavioral objectives of each teaching style in the reproduction and production cluster and the objectives and learning outcomes of the current PE curriculum should be meticulously addressed in the theoretical parts of the courses related to teaching styles in the PETE program. Additionally, it is of crucial value that the courses regarding teaching styles in PETE programs are not limited to theory, but that the teaching styles in both reproduction and production clusters are experienced practically by PETE students through techniques such as micro-teaching in in-faculty courses, that they are implemented in secondary and high school levels in field experiences, that these practices are constantly observed by faculty members, and that feedback is provided to PETE students on how they implement teaching styles.

Obviously, the lack of sports materials is a crucial barrier that inhibits PE teachers to utilize alternative pedagogical approaches. As addressed in the discussion, this result is an on-going obstacle in PE lessons in Türkiye. In this context, especially the support of local governments as well as other institutions to schools and the required cooperation between institutions could facilitate the solution of this issue.

Lastly, an important limitation of this study was that the PE teachers were selected from a single urban area. Therefore, including PE teachers from various cities in future studies would contribute to a more comprehensive understanding of the teaching styles used by Turkish PE teachers. In addition, future studies could focus on whether PE teachers' past K-12 experiences and their prior beliefs about teaching PE (which may potentially lead them to favor the practice and the command styles more) have a determinant role in their preferred teaching styles.

Conflict of Interest: There are no personal or financial conflicts of interest within the scope of the study.

Statement of Contribution of Authors: Study Design-MY, TB, ZG; Data Collection-MY, TB; Statistical Analysis-MY, TB, ZG; Preparation of the Manuscript, TB; All authors read and approved the final manuscript.

Information on Ethics Committee Permission

Ethics Committee: Balıkesir University Social Sciences and Humanities Ethics Commission

Date: 16.12.2022

Number/Decision No: 2022/06

Yanık, M., Balcı, T., & Göktaş, Z. (2023). The Congruence of teaching styles used by Turkish physical education teachers with national curriculum' goals and learning outcomes. *Eurasian Journal of Sport Sciences and Education*, 5(2), 95-115.

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