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## EXAMINING THE ATTITUDES OF HIGH SCHOOL STUDENTS TOWARDS PHYSICAL EDUCATION COURSE<sup>1</sup>

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### ABSTRACT

The trainings that students receive during the education process enable the individual to develop positive behaviors. It is known that one of the most fundamental factors in the formation of behaviors is attitude. Because attitude forms the basis of our behaviors as an internal phenomenon. Based on this fact, the attitude that students will develop towards the physical education course will develop them mentally and physically. The importance of sports in the development of individuals has taken its place in the literature. Based on this importance, the attitude that secondary school students will develop towards physical education and sports education is important. The results of the studies have revealed that the high school education process constitutes an important place in the identity formation of the individual. The purpose of this study is to reveal the importance of how the positive attitude that students studying in high school, which is accepted as the beginning of the period of identity formation, will develop towards physical education and sports education will affect their lives. Relational screening method was used in the research. The research was conducted with 636 secondary school students. In the process of data collection, "Personal Information Form" created by the researchers and "Attitude Scale towards Physical Education Course" developed by Güllü and Güçlü (2009) were used. In the analysis of the data, both descriptive and correlational analyses were employed. The results of the study revealed that the attitudes of secondary school students towards physical education and sports education are at a medium level. In addition, according to the variables included in the study, the type of high school attended, mother's education level, academic achievement and gender variables were found to be effective on the attitude levels of secondary school students towards physical education and sports education, while father's education level was not a factor. Based on the results of the study, it can be suggested to take some measures to increase the attitude levels of secondary education students towards sports education.

**Keywords:** Attitude, physical education course, secondary education.

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## INTRODUCTION

In today's modern living conditions, there is a close relationship between people's healthy lives and the physical activity they do in daily life. Physical activity habits of individuals are acquired in their educational life. In our country, the last step of compulsory education is high school education. Taking into account the physical and physical development of high school students in compulsory education, the Ministry of National Education has included a total of 288 hours of physical education courses in the curriculum, 72 hours per year for each level (URL1). Education enables the development of the individual by revealing the hidden talents of the individual. One of the tasks of contemporary education is to train the individual mentally, physically and emotionally (Kangalgil, Hünük, & Demirhan, 2006). Physical Education and Sports course is one of the courses where students can develop themselves physically. Students acquire physical activity habits through physical education and sports lessons (Özdeş, 2018). One of the aims of the physical education and sports course is to provide the society with the habit of doing sports and to ensure success in international arenas by transforming it into a lifestyle (Dalkıran & Tuncel, 2007). Regular physical activities have positive effects on both physical and mental health (Taşer, 2004). Individuals stay healthier with these effects. Physical education and sports education, which is an important part of the education system, is expected to develop positive attitudes towards sports in individuals (Balyan, Balyan, Kiremitçi, 2012). Attitude is the tendency before the behavior that an individual will develop towards himself/herself or the events around him/her (İnceoğlu, 2004). It is defined as the attitude that forms the behavior that occurs against people or situations and is related to the education we receive (Linda Rikard & Banville, 2007; Bendíková & Dobay, 2017). In other words, it is thought that the attitude we develop towards physical education or physical activity will improve positively over time thanks to the training we receive. The positive attitude that students will develop towards physical education in the high school period, which is the period when the developmental age is completed and individualization begins to form, will constitute the starting point of their voluntary participation in sports for the rest of their lives. In other words, a positive attitude that students will develop towards physical education and sports courses will not only help them to protect their health by teaching the lessons efficiently, but also help them to voluntarily participate in physical activities during their educational life (Silverman & Scrabis, 2004). AL-Liheibi AH (2008) examined the relationship between secondary school students' attitudes towards physical education and their health and found a positive relationship between participation in physical education and health. Akandere, Özyalvaç, and Duman (2010) found a positive relationship between secondary school students' attitudes towards physical education and their academic achievement. Padial-Ruz, Pérez-Turpin, Cepero-González, and Zurita-Ortega (2020) examined the relationship between secondary school students' attitudes towards physical education and physical self-concept and found that there was a positive relationship between physical education and sports participation and physical self-concept. As the examples from domestic and foreign literature reveal, physical education and sports have a close relationship with many aspects of individuals' development. The aim of this study is to reveal the importance of attitude towards physical education and sports course, which is closely related to every aspect of individuals' development. After determining the attitudes of high school students towards physical education,

the aim of this study is to put forward suggestions for developing positive attitudes towards physical education course by realizing the gains of physical education course.

In order to determine the attitudes of individuals studying in secondary education towards physical education for the purpose of the study, answers to the following questions were sought.

- 1- At what level are the attitudes of high school students towards physical education course?
- 2- Do high school students' attitudes towards physical education course differ significantly according to the variables "gender, grade level, family income, grade point average, parental education level"?

## **METHOD**

This section includes information about the research model, population sample, data collection tools, validity reliability, data analysis and publication ethics of the research.

### ***The Model of the Research I***

In this research, the relational screening model was used. In relational screening model, the relationship level between two or more variables is attempted to be measured through statistical tests (Creswell and Plano Clark, 2015). In the scope of the research, attitudes of high school students towards physical education course were described and some arguments were relationally explained in terms of certain independent variables. Relational survey model was used in the study. In relational survey, the level of relationship between two or more variables is tried to be measured using statistical tests (Creswell & Plano Clark, 2015). Within the scope of the research, high school students' attitudes towards physical education course were tried to be described.

### ***Universe and Sampling***

The target population of the study is high school students in secondary education institutions affiliated to the Ministry of National Education. The restricted population of the study consists of students studying in public secondary education institutions affiliated to Kırşehir Provincial Directorate of National Education in 2019. The research sample consisted of 636 secondary school students randomly selected from the population.

During the data collection process, a total of 700 measurement tools were delivered to secondary school students and the opinions of 636 pre-service teachers who were eligible for data entry were included in the study. The response rate to the measurement tools was calculated as 90%. This rate is considered sufficient to make a healthy interpretation (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2009). In this context, it can be said that the data obtained within the scope of the study are suitable for healthy interpretation. In addition, in order to generalize to a population of approximately 5000 people, it is sufficient to reach 357 people with a significance level of at least 0.05 and a deviation of 0.05 (URL 2.). Accordingly, 636 high school students in the study sample have the power to represent the limited population.

**Table 1.** Demographic Information of High Included School Students in the Sample

|                  |                        | f   | %     |
|------------------|------------------------|-----|-------|
| Gender           | Woman                  | 267 | 42,0  |
|                  | Male                   | 369 | 58,0  |
| High school type | Anatolian High School  | 271 | 42,6  |
|                  | Trade High School      | 71  | 11,2  |
|                  | Imam Hatip High School | 134 | 21,1  |
|                  | Vocational High School | 160 | 25,2  |
| Class Level      | 9th grade              | 287 | 45,1  |
|                  | 10th grade             | 175 | 27,5  |
|                  | 11th grade             | 119 | 18,7  |
|                  | 12th grade             | 55  | 8,6   |
|                  | Total                  | 636 | 100,0 |

While 267 (42%) of the high school students in the sample were female, 369 (58%) were male. In addition, 45% of the students were 9th grade students, 27.5% were 10th grade students, 18% were 11th grade students and 8.6% were 12th grade students.

### **Data Collection Instruments**

"*Personal Information Form*" developed by the researchers and "*Attitude Scale towards Physical Education Course*" developed by Güllü and Güçlü (2009) were used as data collection tools in the study.

*Personal Information Form.* It was developed by the researchers to determine the demographic information of high school students. Demographic information (gender, grade level, school type, parental education level, family income level, time spent playing games in digital environment, etc.), which are thought to be effective variables on attitudes towards physical education course, were transformed into open-ended and closed-ended questionnaire items. Open-ended answers were converted into discontinuous data format during the data analysis process.

*Attitude Scale towards Physical Education Course.* This measurement tool developed by Güllü and Güçlü (2009) aims to determine the attitudes of secondary school students towards physical education course. The scale consists of 35 items and has a single factor structure. The Cronbach Alpha internal reliability coefficient of the scale was found to be 0.94.

### **Analysis of Data**

In the analysis of the data, both descriptive and relational analyses were used together. The significance level of 0.05 was taken as a basis in the research. In the analysis of the descriptive data obtained, "*frequency (f), percentage (%), weighted mean ( $\bar{X}$ ) and standard deviation (SD)*" values were used. Before examining high school students' attitudes towards physical education course according to their demographic information, it was examined whether the data showed normal distribution or not.

**Table 2.** Normality Data

|          |                    | Statistics   |
|----------|--------------------|--------------|
| ATTITUDE | Ort.               | 3,33         |
|          | Median             | 3,26         |
|          | Skewness           | -,070        |
|          | Kurtosis           | -,089        |
|          | Kolmogorov-Smirnov | ,036; p=,084 |

The mean and median values of attitudes towards physical education course of individuals studying in secondary education are close to each other. In addition, the skewness value of the measurement tool is -,070, while the kurtosis value is -,089. Skewness and kurtosis values between +1.5 and -1.5 are generally suitable for normal distribution of data (Tabachnick & Fidell, 2013). In addition, according to Kalaycı (2005), the fact that the arithmetic mean, mode and median values are close to each other shows that the data exhibit a normal distribution. In general, the fact that the arithmetic mean and median values in the measurement tool in Table 2 are close to each other and the Kolmogorov-Smirnov value is not statistically significant ( $p>.05$ ) indicates that the data are normally distributed.

In line with all these data obtained, independent t-test was used to examine high school students' attitudes towards physical education course according to gender characteristics. One-way analysis of variance (ANOVA) test was used to examine the attitudes of students according to variables with more than two pores such as class level and family income level. In addition, the source of significant difference was determined by Scheffe test. Cohen'd and Eta Square coefficient were used to calculate the effect size in the study findings.

**FINDINGS**

**Table 3.** Findings Related to High School Students' Attitudes Towards Physical Education Course

|  | N   | $\bar{x}$ | SS   |
|--|-----|-----------|------|
| Attitude towards Physical Education Course | 636 | 3,33      | ,722 |

It was determined that the average of high school students' of the attitude averages towards physical education course was at a medium level ( $=3,33$ ). This average is at the level of undecided. This shows that high school students' attitudes towards physical education course are at a medium level.

**Table 4.** Findings Related to High School Students' Attitudes Towards Physical Education Course According to Gender Characteristics

|          | Gender | N   | $\bar{x}$ | SS   | t      | p    | Cohen d |
|----------|--------|-----|-----------|------|--------|------|---------|
| ATTITUDE | Woman  | 267 | 3,25      | ,716 | -2,386 | ,017 | ,195    |
|          | Male   | 369 | 3,39      | ,722 |        |      |         |

When the attitudes of the students are analyzed according to gender characteristics, it is seen that the mean of male students ( $=3,39$ ) is higher than the mean of female students ( $=3,25$ ). The difference in means between the groups is statistically significant in favor of male students ( $t=-2,386$ ;  $p<.05$ ). This significant difference has a small effect size ( $d=.195$ ). The findings revealed that gender is an influential variable on students' attitudes. The results show that the attitude levels of males are higher than females.

**Table 5.** High School Students' Attitudes Averages Towards Physical Education Course According to School Types

|                                     | N   | $\bar{x}$ | SS   |
|-------------------------------------|-----|-----------|------|
| <sup>1</sup> Anatolian High School  | 271 | 3,37      | ,741 |
| <sup>2</sup> Trade High School      | 71  | 3,11      | ,646 |
| <sup>3</sup> Imam Hatip High School | 134 | 3,34      | ,788 |
| <sup>4</sup> Vocational High School | 160 | 3,37      | ,648 |
| Total                               | 636 | 3,33      | ,722 |

When the attitudes of the students were analyzed according to the high schools they attended, it was determined that the highest averages were observed in Vocational (=3,37) and Anatolian High School (=3,37) students, while the lowest averages were observed in Trade High School (=3,11) students. The findings on whether the difference between the averages between the groups is statistically significant are given in Table 6.

**Table 6.** Findings Related to High School Students' Attitudes Towards Physical Education Course According to School Type Variable

|            | Total Squares | sd  | Mean of Squares | F     | p    | $\eta^2$ | Source of the difference |
|------------|---------------|-----|-----------------|-------|------|----------|--------------------------|
| Intergroup | 4,313         | 3   | 1,438           | 2,776 | ,041 | ,013     | 1,3,4>2                  |
| In-group   | 327,363       | 632 | ,518            |       |      |          |                          |
| Total      | 331,676       | 635 |                 |       |      |          |                          |

<sup>1</sup> Anatolian High School, <sup>2</sup> Trade High School, <sup>3</sup> Imam Hatip High School, <sup>4</sup> Vocational High School

Table 6 shows that the attitudes of high school students towards the type of school they attend are statistically significant ( $F=2,776$ ;  $p<,05$ ). This significant difference has a small effect size ( $\eta^2=,013$ ). The significant difference occurred between Anatolian High School, Imam Hatip High School, Vocational High School and Trade High School in favor of the first ones. This finding shows that the type of school is an effective variable on students' attitudes towards physical education course and that the attitudes of Trade High School students are at the lowest level.

**Table 7.** High School Students' Attitudes Towards Physical Education Course According to Grade Level

|                         | N   | Av.  | SS   |
|-------------------------|-----|------|------|
| <sup>1</sup> 9th grade  | 287 | 3,33 | ,734 |
| <sup>2</sup> 10th grade | 175 | 3,35 | ,726 |
| <sup>3</sup> 11th grade | 119 | 3,37 | ,745 |
| <sup>4</sup> 12th grade | 55  | 3,19 | ,586 |
| Total                   | 636 | 3,33 | ,722 |

When the attitudes of the students were analyzed according to their grade levels, it was seen that the highest averages were observed in 11th grade (=3,37), 10th grade (=3,35) and 9th grade (=3,33) students, respectively, while the lowest average was observed in 12th grade (=3,19) students. In general, it is seen that the averages of the senior students decreased significantly. The statistical results of the difference between the averages between the groups are given in Table 8.

**Table 8.** Findings Related to High School Students' Attitudes Towards Physical Education Course According to

| Grade Level |                  |     |                 |      |      |
|-------------|------------------|-----|-----------------|------|------|
|             | Total of Squares | sd  | Mean of Squares | F    | p    |
| Intergroup  | 1,308            | 3   | ,436            | ,834 | ,475 |
| In-group    | 330,368          | 632 | ,523            |      |      |
| Total       | 331,676          | 635 |                 |      |      |

In Table 8, when the attitudes of high school students were analyzed according to their grade levels, it was determined that the mean differences between the groups were not statistically significant ( $F=,834$ ;  $p>,05$ ). Although this finding shows that the attitudes of the students studying in the last grade remain at a low level, it shows that the grade level is not a factor variable on students' attitudes towards physical education course.

**Table 9.** High School Students' Averages Attitudes Towards Physical Education Course According to Their Families' Income Levels

|                            | N   | Av.  | SS   |
|----------------------------|-----|------|------|
| <sup>1</sup> 0-2500 TL     | 135 | 3,45 | ,683 |
| <sup>2</sup> 2501-5000 TL  | 384 | 3,32 | ,723 |
| <sup>3</sup> 5001-7500 TL  | 72  | 3,39 | ,683 |
| <sup>4</sup> 7501-Above TL | 45  | 3,01 | ,808 |
| Total                      | 636 | 3,33 | ,722 |

In Table 9, it is seen that the highest level of high school students' attitudes towards physical education course according to family income levels is formed by the students of families with an income of 0-2500 TL ( $=3,45$ ), while the lowest average is formed by the students of families with an income of 7501-over TL ( $=3,01$ ). These results show that family income status is a factor on students' attitudes. Individuals with higher family income have lower attitude levels. The findings about whether the difference between the averages between the groups is statistically significant are given in Table 10.

**Table 10.** Findings Related to High School Students' Attitudes Towards Physical Education Course According to Their Families' Income Levels

|            | Total of Squares | sd  | Mean of Squares | F     | p    | $\eta^2$ | Source of the difference |
|------------|------------------|-----|-----------------|-------|------|----------|--------------------------|
| Intergroup | 6,884            | 3   | 2,295           | 4,465 | ,004 | ,021     | 1,2,3>4                  |
| In-group   | 324,792          | 632 | ,514            |       |      |          |                          |
| Total      | 331,676          | 635 |                 |       |      |          |                          |

<sup>1</sup> 0-2500 TL, <sup>2</sup> 2501-5000 TL, <sup>3</sup> 5001-7500 TL, <sup>4</sup> 7501-Above TL

When the attitudes of high school students are analyzed according to the income level of their families in Table 10, it is seen that the mean differences between the groups are statistically significant ( $F=4,465$ ;  $p<,05$ ). The effect size of this significant difference is small ( $\eta^2=,021$ ). The source of the significant difference is in favor of the first among 0-2500 TL, 2501-5000 TL, 5001-7500 TL and 7501-above TL. Although this finding shows that the income levels of the families change the attitudes of the students towards physical education course, it also

shows that the attitudes of the children of families with low income towards physical education course are higher.

**Table 11.** High School Students' Attitude Averages Towards Physical Education Course According to Academic Achievement Grades

|                                    | N   | Av.  | SS   |
|------------------------------------|-----|------|------|
| <sup>1</sup> 0-49,99 does not pass | 34  | 3,31 | ,862 |
| <sup>2</sup> 50-59,99 passes       | 62  | 3,34 | ,649 |
| <sup>3</sup> 60-69,99 medium       | 98  | 3,42 | ,712 |
| <sup>4</sup> 70-84,99 good         | 269 | 3,22 | ,723 |
| <sup>5</sup> 85-100 very good      | 173 | 3,46 | ,700 |
| Total                              | 636 | 3,33 | ,722 |

In Table 11, according to the academic achievement grades of high school students, it was seen that the highest level of attitude towards physical education course was formed in students with a grade point average of 85-100 (very good) ( =3,46), while the lowest level of attitude was formed in students with a grade point average of 0-49,99 (not passing) ( =3,31). Students with high academic achievement also have high attitudes towards physical education course. The findings on whether the difference between the averages between the groups is statistically significant are given in Table 12.

**Table 12.** Findings Related to High School Students' Attitudes Towards Physical Education Course According to Academic Achievement Grades

|            | Total of Squares | sd  | Mean of Squares | F     | p    | η <sup>2</sup> | Source of the difference |
|------------|------------------|-----|-----------------|-------|------|----------------|--------------------------|
| Intergroup | 7,207            | 4   | 1,802           | 3,504 | ,008 | ,022           | 3,5>4                    |
| In-group   | 324,469          | 631 | ,514            |       |      |                |                          |
| Total      | 331,676          | 635 |                 |       |      |                |                          |

<sup>1</sup> 0-49,99 does not pass, <sup>2</sup> 50-59,99 passes, <sup>3</sup> 60-69,99 medium, <sup>4</sup> 70-84,99 good, <sup>5</sup> 85-100 very good

When the attitudes of high school students according to their academic achievement grades are analyzed in Table 12, it is seen that the mean differences between the groups are statistically significant (F=3,504; p<,05). This significant difference has a small effect (η<sup>2</sup>=,022). The significant difference occurred between students with averages of 60-69.99 (average) and 85-100 (very good) and students with averages of 70-84.99 (good) in favor of the former. This finding shows that academic achievement is a factor on students' attitudes towards physical education course and students with average and good academic achievement have high attitudes towards physical education course.

**Table 13.** High School Students' Attitudes Averages Towards Physical Education Course According to Their Mother's Education Status

|                             | N   | Av.  | SS   |
|-----------------------------|-----|------|------|
| <sup>1</sup> Primary School | 170 | 3,42 | ,698 |
| <sup>2</sup> Middle School  | 186 | 3,40 | ,742 |
| <sup>3</sup> High School    | 188 | 3,30 | ,662 |
| <sup>4</sup> University     | 80  | 3,12 | ,815 |
| <sup>5</sup> Postgraduate   | 12  | 2,80 | ,557 |
| Total                       | 636 | 3,33 | ,722 |



In Table 13, when the attitudes of high school students were analyzed according to their mother's education level, it was determined that the highest level of attitudes was formed in the children of mothers who graduated from primary school ( =3,42). The lowest average was formed in the children of mothers with graduate ( =2,80) education level. In general, as the mother's education level increases, students' attitudes towards physical education course decrease. The findings on whether the difference between the averages between the groups is statistically significant are given in Table 14.

**Table 14.** Findings Related to High School Students' Attitudes Towards Physical Education Course According to Their Mother's Education Status

|            | Total of Squares | sd  | Mean of Squares | F     | p    | $\eta^2$ | Source of the difference |
|------------|------------------|-----|-----------------|-------|------|----------|--------------------------|
| Intergroup | 9,347            | 4   | 2,337           | 4,574 | ,001 | ,028     | 1,2>4,5                  |
| In-group   | 322,329          | 631 | ,511            |       |      |          | 3>5                      |
| Total      | 331,676          | 635 |                 |       |      |          |                          |

<sup>1</sup> Primary School, <sup>2</sup> Middle School, <sup>3</sup> High School, <sup>4</sup> University, <sup>5</sup> Postgraduate

High school students' attitudes towards physical education course differed statistically significantly according to their mother's education level (F=4,574; p<,05). The effect size of this significant difference has a small effect ( $\eta^2$ =,028). It was determined that the significant difference occurred between students whose mothers were primary and secondary school graduates and students whose mothers were university and postgraduate graduates in favor of the first ones, and between students whose mothers were high school and postgraduate graduates in favor of students whose mothers were high school graduates. This finding shows that mother's education status is a factor on students' attitudes towards physical education course and that students with low mother's education status have higher attitudes towards physical education course.

**Table 15.** High School Students' Attitudes Averages Towards Physical Education Course According to Father's Education Status

|                             | N   | Av.  | SS   |
|-----------------------------|-----|------|------|
| <sup>1</sup> Primary School | 91  | 3,32 | ,729 |
| <sup>2</sup> Middle School  | 138 | 3,43 | ,705 |
| <sup>3</sup> High School    | 218 | 3,37 | ,704 |
| <sup>4</sup> University     | 149 | 3,20 | ,750 |
| <sup>5</sup> Postgraduate   | 40  | 3,29 | ,720 |
| Total                       | 636 | 3,33 | ,722 |

In Table 15, it was seen that the highest level of high school students' attitudes towards physical education course according to their fathers' education level was formed in the children of fathers who graduated from secondary school ( =3,43), while the lowest averages were formed in the children of fathers with university ( =3,20) and postgraduate education ( =3,29) levels. Table 16 presents the findings on whether the difference between the averages between the groups is statistically significant.

**Table 16.** Findings Related to High School Students' Attitudes Towards Physical Education Course According to Father's Education Status

|            | Total of Squares | sd  | Mean of Squares | F     | p    |
|------------|------------------|-----|-----------------|-------|------|
| Intergroup | 4,296            | 4   | 1,074           | 2,070 | ,083 |
| In-group   | 327,380          | 631 | ,519            |       |      |
| Total      | 331,676          | 635 |                 |       |      |

It was determined that the mean differences between the groups according to the father's education level variable were not statistically significant ( $F=2,070$ ;  $p>.05$ ). This finding shows that father's education level does not affect students' attitudes towards physical education course.

**Table 17.** High School Students' Attitudes Averages Towards Physical Education Course According to the Time They Spend in Digital Games

|                                | N   | Av.  | SS   |
|--------------------------------|-----|------|------|
| <sup>1</sup> 1 hours           | 257 | 3,31 | ,758 |
| <sup>2</sup> 2 hours           | 196 | 3,42 | ,704 |
| <sup>3</sup> 3 hours           | 76  | 3,30 | ,682 |
| <sup>4</sup> 4 hours           | 24  | 3,13 | ,720 |
| <sup>5</sup> 5 and above hours | 83  | 3,27 | ,678 |
| Total                          | 636 | 3,33 | ,722 |

When the attitudes of high school students towards physical education course were analyzed according to the time they spent in digital games, it was determined that the highest averages were 2 hours ( $=3,42$ ) and 1 hour ( $=3,31$ ). The lowest mean was 4 hours ( $=3,13$ ) and 5+ hours ( $=3,27$ ) for high school students who played digital games. In general, as the time spent by high school students in front of the computer or phone increases, their attitudes towards physical education lessons decrease. The findings on whether the difference between the averages between the groups is statistically significant are given in Table 18.

**Table 18.** Findings Related to High School Students' Attitudes Towards Physical Education Course According to the Time They Spend in Digital Games

|            | Total of Squares | sd  | Mean of Squares | F     | p    |
|------------|------------------|-----|-----------------|-------|------|
| Intergroup | 2,892            | 4   | ,723            | 1,388 | ,237 |
| In-group   | 328,784          | 631 | ,521            |       |      |
| Total      | 331,676          | 635 |                 |       |      |

In Table 18, when the attitudes of high school students towards physical education course according to the time they spent in digital games were analyzed, it was determined that the mean differences between the groups were not statistically significant ( $F=1,388$ ;  $p>.05$ ). This finding shows that the time spent in digital games is not a factor variable on students' attitudes towards physical education course.

### CONCLUSION and DISCUSSION

The attitudes of high school students towards the physical education course are generally at the level of medium and undecided. This situation shows that high school students are undecided about whether they like physical education course or not. İmamoğlu (2011) found in his study that students' attitudes towards physical education course were high. Padial-Ruz, Pérez-Turpin, Cepero-González, and Zurita-Ortega (2020) found that students'

attitudes towards physical education course were at a low level in their study. In some studies in the literature, it was also found that students' attitude levels towards physical education course were high (Min-Hau & Phillips, 2002; Linda Rikard & Banville, 2006; Subramaniam & Silverman, 2007; Zeng, Hipscher, & Leung, 2011; Yaldız, 2013; Keskin, 2015; Dalgın, 2019; Akdoğan, 2016; Cimili, 2017; Phillips, Bernstein, & Silverman, 2019; Burton, Kadir, & Khan, 2020).

Students' attitudes towards physical education course vary according to their gender characteristics. Especially male students' attitudes towards physical education course are at a higher level. Hünük and Demirhan (2003) found that male students developed more positive attitudes towards physical education course. In the literature, there are studies that found that gender variable is effective on students' attitudes towards physical education course. In some of these studies, it was concluded that this effect was in favor of males (Şişko & Demirhan, 2002; Kangalgil, Hünük, & Demirhan, 2006; Akandere, Özyalvaç, & Duman 2010; Özyalvaç, 2010; Alemdağ, Öncü, & Sakallıoğlu, 2014; Sayın, 2014; Keskin, 2015; Şengül, 2016; Lima, Clemente, & Vale, 2018; Kılıç, 2019; Dalgın, 2019; Tabur, 2019 Yavrucu, 2019). Unlike the results of the studies in the literature, there are also studies that concluded that gender makes a difference in favor of women in attitudes towards physical education course (Cinpolat, Alıncak, & Abakay, 2016; Keskin, Öncü, & Küçük, 2016; Mir & Shrivastava, 2019). However, there are studies that concluded that gender is not an effective variable on students' attitudes towards physical education (Çelik & Pulur, 2011; Yaldız, 2013; Keskin, 2015; Yanık & Çamlıyer, 2015; Göksel & Çağdaş, 2016; Cimili, 2017; Dinçer, 2019).

The high school type is important for students to develop attitudes towards physical education. Especially within the scope of the study, it was found that the attitudes of Anatolian High School, Imam Hatip High School and Vocational High School students were significantly higher than those of Trade High School students. Dalgın (2019) and Sayın (2014), in their studies on high school students, found that students studying in Anatolian High Schools have high attitudes towards physical education. In some studies in the literature, it was concluded that the high school type variable was not effective on students' attitudes towards physical education (Çelik & Pulur, 2013; Cimili, 2017).

The mean attitudes of the students towards physical education course change according to their grade levels. In general, as the grade level increases, students' attitudes towards physical education course decrease. Especially the attitudes of 12th grade students were found to be at the lowest level. However, the mean differences between the groups were not statistically significant. In the literature, it is seen that there are studies finding that this variable is a factor (Balyan, 2009; Özyalvaç, 2010; Yaldız, 2013; Keskin, Öncü, & Küçük 2016; Şengül, 2016; Yaldız & Özbek, 2018; Kılıç, 2019). In their studies, Kangalgil, Hünük, and Demirhan (2006) and Alemdağ, Öncü, and Sakallıoğlu (2014) found that the grade level variable in students' attitudes towards physical education

course differed significantly in favor of those studying in upper grades. Subramaniam and Silverman (2007) found that the grade level variable in students' attitudes towards physical education course differed significantly in favor of those studying in the lower grades. However, studies that found that the grade level variable was not effective on students' attitudes towards the physical education course have taken place in the literature (Holoğlu, 2006; Göksel & Çağdaş, 2016; Cimili, 2017; Dinçer, 2019; Tabur, 2019).

According to the family income levels of the students, it was determined that the highest level of attitudes towards physical education course was formed in students with an income of 0-2500 TL, and the lowest level was formed in students from families with an income of 7501-above TL. In general, with the increase in the income level of the family, students' attitudes towards physical education decreases. Although this situation shows that the income levels of the families change the attitudes of the students towards the physical education course, it was determined that the attitudes of the children of families with low income towards the physical education course were higher. In the literature, there are studies that differ from the results of the study and find the physical education attitudes of low-income students high (Dalgin, 2019). In the literature, there are studies that found that the family income status variable is not a factor on the attitude levels of individuals (Yaldız, 2013; Keskin, 2015; Yanık & Çamlıyer, 2015; Cimili, 2017).

Academic achievement of high school students has an effect on their attitudes towards physical education course. In particular, the highest average was found in students with 85-100 (very good) academic achievement. The attitude levels of academically successful secondary school students are also high. Unlike the results of the research, studies that concluded that grade point average is not an effective variable in students' attitudes towards physical education course draw attention (Keskin, 2015; Kılıç, 2019; Yanık & Çamlıyer, 2015)

The mean attitudes of high school students towards physical education course vary according to their parents' education level. Especially the attitudes of the children of mothers and fathers with low education level are higher. However, statistically significant difference was found only in the mother's education level. The source of the significant difference was determined to be in favor of the first ones between primary and secondary school and university and graduate school, and between high school and graduate school, it was determined that the children of mothers who graduated from high school were significantly higher. This finding shows that mother's education status is a factor on students' attitudes towards physical education course and students with low mother's education status have higher attitudes towards physical education course. Balyan (2009) found in his study that the physical education attitudes of individuals with low parental education level were high. There are also studies that conclude that parental education level is not an effective variable in students' attitudes towards physical education course (Özyalvaç, 2010; Yaldız, 2013; Kılıç, 2019)

The attitudes of high school students towards physical education course according to the time they spent in digital games were highest in students who played games for 1-2 hours. The lowest average was found in high school students who played digital games for 4-5 or more hours. In general, as the time spent by high school students in front of the computer or phone increases, their attitudes towards physical education lesson decreases. However, the difference between the averages was not statistically significant.

#### RECOMMENDATIONS

- The decrease in attitude towards physical education as the grade level increases may be due to exam anxiety. Measures can be taken to eliminate this anxiety.
- In order to ensure that physical education and sports courses do not lose their importance and students' positive attitudes are not lost, points can be given to increase the effect of talent courses such as (physical education, music, painting) in university entrance.
- The study can be conducted with a larger sample group.

#### ETHICAL TEXT

In this article, the journal writing rules, publication principles, research and publication ethics, and journal ethical rules were followed. All responsibilities related to the article belong to the responsible authors. The restricted population of the research was composed of the students who were attending in the public secondary education institutions affiliated to the Provincial Directorate of National Education in Kırşehir during the 2019 year.

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