

## AN INVESTIGATION OF THE CHARACTERISTICS OF THE PHYSICAL INTELLIGENCE AND PHYSICAL EDUCATION OF THEIR RELIGIOUS SCHOOL STUDENTS BY AGE AND GENDER VARIABLES<sup>1</sup>

### KIRSAL KESİMDE YAŞAYAN İLKOKUL ÖĞRENCİLERİNİN BEDENSEL ZEKÂ DÜZEYLERİNİN VE BEDEN EĞİTİMİ DERSİNE YÖNELİK TUTUMLARININ YAŞ VE CİNSİYET DEĞİŞKENLERİNE GÖRE İNCELENMESİ<sup>1</sup>

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#### ABSTRACT

In this research, it was aimed to examine the physical intelligence levels of elementary school students living in rural areas and their attitudes towards physical education lessons. A total of 60 primary school students of which 26 female and 34 male students aged between 8 and 11 were enrolled in the primary school in the province of Ağlasun in the province of Burdur. In the determination of the kinesthetic intelligence scores of the primary school students participating in the research, 10 questions were used in the "Kinesthetic Intelligence Lower Dimension" of the Multiple Intelligence Theory Scale developed by Saban (2001). The "Physical Education Class Attitude Scale" developed by Güllü & Güçlü (2009) was used in determining the attitudes of the students regarding the physical education lesson. Frequency, Independent Test, One Way ANOVA analyzes were used in the SPSS 22.0 program in the statistical analysis of the data obtained in the research. At the end of the research, it was determined that the attitude scores of the students towards the physical education course were high and the kinesthetic intelligence scores were moderate. It was determined that there was no statistically significant difference between the kinesthetic intelligence scores of students and attitudes towards physical education course according to gender ( $p > 0.05$ ). Similarly, there was no statistically significant difference in physical intelligence scores according to age groups of students ( $p > 0.05$ ). On the other hand, it was determined that the attitudes of the students towards the physical education course were statistically different according to the age groups ( $p < 0.05$ ). According to this, it was determined that the students with the highest attitude score had 11 years of age followed by students who were 10, 8 and 9 years old respectively. As a result, it was found that primary school students who live in rural areas have high attitudes towards physical education lessons, kinesthetic intelligence scores are moderate, gender and age factor are not predictive on students physical intelligence levels, whereas student attitudes toward physical education course can be said.

**Keywords:** Kinesthetic intelligence, elementary school, physical education, attitude

#### ÖZET

Yapılan bu araştırmada kırsal kesimde yaşayan ilkokul öğrencilerinin bedensel zekâ düzeylerinin ve beden eğitimi dersine yönelik tutumlarının incelenmesi amaçlanmıştır. Araştırmaya Burdur ilinin Ağlasun ilçesinde bulunan ilkokullarda öğrenci olan, 8-11 yaş grubunda bulunan 26 kadın ve 34 erkek olmak üzere toplam 60 ilkokul öğrencisi katılmıştır. Araştırmaya katılan ilkokul öğrencilerinin kinestetik zekâ puanlarının tespitinde Saban (2001) tarafından geliştirilmiş olan Çoklu Zekâ Kuramı Ölçeğinin "Kinestetik Zekâ Alt Boyutunda" yer alan 10 soru kullanılmıştır. Öğrencilerin beden eğitimi dersine ilişkin tutum düzeylerinin tespit edilmesinde ise Güllü & Güçlü (2009) tarafından geliştirilen "Beden Eğitimi Dersi Tutum Ölçeği" kullanılmıştır. Araştırmada elde edilen verilerin istatistiksel analizlerinde SPSS 22.0 programında frekans, Independent t Test, One Way ANOVA analizlerinden yararlanılmıştır. Araştırmanın sonunda, öğrencilerin beden eğitimi dersine yönelik tutum puanlarının yüksek, kinestetik zekâ puanlarının ise orta düzeyde olduğu tespit edilmiştir. Öğrencilerin kinestetik zekâ puanlarının ve beden eğitimi dersine yönelik tutumlarının cinsiyetlerine göre istatistiksel olarak anlamlı bir farklılık göstermediği tespit edilmiştir ( $p > 0.05$ ). Benzer şekilde öğrencilerin yaş gruplarına göre bedensel zekâ puanlarının istatistiksel olarak anlamlı farklılık göstermediği belirlenmiştir ( $p > 0.05$ ). Buna karşılık öğrencilerin beden eğitimi dersine yönelik tutumlarının yaş gruplarına göre istatistiksel olarak anlamlı farklılık gösterdiği tespit edilmiştir ( $p < 0.05$ ). Buna göre, en yüksek tutum puanına 11 yaşındaki öğrencilerin sahip olduğu, bunu sırasıyla 10, 8 ve 9 yaşındaki öğrencilerin takip ettiği belirlenmiştir. Sonuç olarak kırsal kesimde yaşayan ilkokul

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Kırsal Kesimde Yaşayan İlkokul Öğrencilerinin Bedensel Zekâ Düzeylerinin Ve Beden Eğitimi Dersine Yönelik Tutumlarının Yaş Ve Cinsiyet Değişkenlerine Göre İncelenmesi

An Investigation of the Characteristics of the Physical Intelligence and Physical Education of Their Religious School Students by Age and Gender Variables

öğrencilerinin beden eğitimi dersine yönelik tutumlarının yüksek, kinestetik zekâ puanlarının ise orta düzeyde olduğu, öğrencilerin bedensel zekâ düzeyleri üzerinde cinsiyet ve yaş unsurunun önemli birer yordayıcı olmadığı, buna karşılık beden eğitimi dersine yönelik öğrenci tutumlarının puanının yaşa paralel olarak artış gösterdiği söylenebilir.

**Anahtar kelimeler:** Kinestetik zekâ, ilkokul, beden eğitimi, tutum

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## INTRODUCTION

Improved human resource development activities are defined as ‘physical education’ activities (Aras, 2013). The development of health levels of people, the support of character formation, the stronger the national direction, the higher the moral productivity and the common emotional and solidarity skills. At the beginning of the basic principles of education is the support of the individual's development both intellectually and physically. Physical education courses are at the beginning of the courses that contribute to the students to gain healthy lifestyle behaviours and to have a good level of physical fitness within the education system (Bal, 2010).

In today's educational world, the content of educational activities offered to children is designed largely according to the theory of multiple intelligences. The multiple intelligence theory put forward by Gardner reveals that the intelligence areas that the individual possesses are not just a field of intelligence (Altan, 2011). In the multiple intelligence theory proposed by Gardner, there are a total of 8 intelligence fields, and one of the intelligence types in the multiple intelligence theory is kinesthetic / somatic intelligence. Conceptually, kinesthetic / bodily intelligence is defined as the ability to convey an individual's feelings and thoughts through body language (Güney et al., 2010). Bodily intelligence is also known as an intelligence of movement and balance in the literature. Individuals with high levels of physical intelligence have developed some of the skills that are touchable besides physical performance parameters such as balance, co-ordination, flexibility, speed and power. Frequent use of gestures and gestures in movement, skillfully performing artist and actress roles, and effectively using mental and muscular qualities are among the basic characteristics of people with high physical intelligence. For this reason, people with a high level of physical intelligence tend to focus on occupations such as sports, dance, sculptor, coach, surgeon and cinema artist (Özkan, 2008).

The tendency of people to react to the facts and objects in the environment they live in is defined as ‘attitude’. Attitudes such as this can be understood from the above are behavioral intentions that are expected to be revealed in the face of events or situations that people encounter. However, the issue of attitude is not limited to events and phenomena. In this context, people can develop attitudes toward other people, a design, an item or an abstract subject (happiness, unhappiness, supreme, good, bad, etc.) in daily life. The attitudes that people exhibit are shaped by the characteristics of the geographical region, the knowledge level of the person, processes of socialization and life experiences (İnceoğlu, 2010). There is a significant relationship between attitude and behaviour (Üstüner, 2006). In the educational environment, it is stated that the attitudes of the students towards the lectures can affect the course successes and behaviours they exhibit in the lectures (Montenegro, 2012; Aras, 2013).

Attitudes towards physical intelligence and physical education course can affect the physical education course success. For this reason, it is an important to examine the attitudes of the students towards the physical education lesson and the levels of physical intelligence. In this study, it was aimed to investigate the physical intelligence levels of elementary school students living in rural areas and attitudes towards physical education lessons according to age and gender variables.

## MATERIAL AND METHOD

### Research Group

A total of 60 primary school students, 26 female and 34 male students in the 8-11 age group, were enrolled in this research in the primary school in the province of Ağlasun in Burdur province during the 2015-2016 education and training year.

### Collection of Data

The Multiple Intelligence Scale was used to determine the physical intelligence levels of all the students participating in the research. There are a total of 105 questions in the Multiple Intelligences Scale. Of the 105 questions, 4, 8, 1, 3, 16, 19.3 0, 38, 44, 53 and 66 questions measure the kinesthetic intelligence sub-dimension. The high score of the participants in the 4-point likert scale indicates that the level of physical intelligence is also high (Tunç, 2008). When the attitudes of the students to the physical education course are determined, 'Physical Education Class Attitude Scale' developed by Güllü & Güçlü (2009) will be used. The Physical Education Classroom Attitude Scale comes from a total of 35 questions, 11 negative and 34 positive. The scale is one-dimensional and the variance value explained by the single factor is 36,19% and the first eigenvalue is 12,67. After the reliability analysis of the scale, Cronbach's Alpha value was found to be 0.94 and the reliability coefficient was found to be 0.80. The scale is in the likert type of 5 and the gradation style would be "I totally agree" (5), "I participate" (4), "I do not understand" (3), "I do not participate" (2), "I definitely do not participate" (1). The lowest score is 35, the highest score is 175, and the highest score is 35. The lowest score is 35, which is negative (item 3, 17, 19, 20, 24, 25, 26, 29, 30, (Güllü & Güçlü, 2009).

### Statistical Analysis

In the statistical analysis of the data obtained in the study SPSS 22.0 programme frequency, Independent Test, One Way ANOVA analysis was used.

## FINDINGS

**Table 1. Students physical ability and attitudes towards physical education**  
See below the descriptive findings.

Parametre	N	Minimum	Maximum	Means	Std. Deviation
Physical education and attitude towards the course.	60	60	167	130,07	25,591
Physical Intelligence	60	13	45	33,55	6,588

As seen in Table 1 above – Students and their attitudes participating in the survey towards a physical education lesson were moderate in high bodily intelligence scoring.

**Table 2 See below the table for the comparison of students attitudes to physical education by gender.**

Gender	N	Means	Std. Deviation	t	p
Female	26	130,81	22,638	,195	,846
Male	34	129,50	27,961		

As shown in Table 2 above, it was determined that the attitudes of the students who participated in the research to the physical education lesson did not show any statistically significant difference according to the variable gender ( $p>0.05$ ).

**Table 3 Below shows the comparison of attitudes of students towards the physical education lessons by age groups.**

Age Group	N	Means	Std. Deviation	F	p
8	11	127,27	20,485	4,551	,006
9	20	117,55	24,171		
10	25	136,76	25,420		
11	4	158,50	9,292		
Total	60	130,07	25,591		

As seen in table 3 above students participating in the survey according to age groups of attitudes towards physical education, statistically were found to be significantly different ( $p>0,05$ ). According to the findings obtained students were found to have imported in their activities towards physical education lessons as their age increased.

**Table 4 Below shows the comparison of physical education scores according to the students gender.**

Gender	N	Means	Std.	t	p
Female	26	33,73	5,661	,195	,846
Male	34	33,41	7,299		

As shown in table 4 above it was found that the physical intelligence scores of the students who participated in the research did not show statistically significant difference according to the gender variable ( $p>0,05$ ).

**Table 5 Below shows the comparison of physical intelligence scores according to age groups of students.**

Age Group	N	Means	Std. Deviation	F	p
8	11	32,00	9,654	1,778	,162
9	20	31,65	5,994		
10	25	35,12	5,223		
11	4	37,50	4,796		
Total	60	33,55	6,588		

As shown in Table 5 above, it was determined that the physical intelligence scores of the students participating in the research did not show statistically significant differences according to age groups.

## DISCUSSION AND CONCLUSION

It was determined that physical intelligence levels of students participating in the research did not show any significant difference according to age and gender variables. As a result of this, it can be considered that the male and female students participating in the research should be in the same developmental stages in terms of age groups and that the psycho-motor developmental characteristics are similar. Similar research findings in the literature suggest that the levels of physical intelligence of students in similar age groups do not differ significantly from those of age and gender variables (Hekim, Saygılı & Gülsoy, 2016, Gülsoy, Hekim & Saygılı, 2016). In this context, it can be said that the findings obtained in the research are in parallel with the literature.

It was determined that the attitudes of the students who participated in the survey to the physical education lessons did not show any statistically significant difference according to the gender variable. It is seen that this result is in parallel with the literature (Zengin, Hekim & Hekim, 2016: 3242 Hekim & Saygılı, 2016). It can be considered that the attitudes of the male and female students towards the physical education lessons are based on the fact that the physical education and spore expectations of the male and female students are similar. It was determined that the attitudes of the students to the physical education course differed according to the age groups. According to the findings, as the age groups of the students increased, the attitudes towards the physical education lesson were also improved. In similar studies in the literature, it has been determined that the age component influences the attitudes towards the physical education course (Doğan, 2011, Kangalgil, Hünük & Demirhan, 2006). As the age of the students increases, it can be considered that the increase of the attitudes towards the physical education course is due to the increase in expectation from the physical education course due to the increase in age.

As a result, it was found that primary school students who live in rural areas have high attitudes towards physical education lessons, kinesthetic intelligence scores are moderate, gender and age factor are not predictive on students physical intelligence levels, where as student attitudes toward physical education course. Findings obtained in the study were found to be in parallel with the literature.

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