

STUDENT ACHIEVEMENT EVALUATION APPROACHES IN ELEMENTARY PHYSICAL EDUCATION COURSES IN TURKEY

TÜRKİYE'DE İLKÖĞRETİM BEDEN EĞİTİMİ DERSLERİNDE ÖĞRENCİ BAŞARISININ DEĞERLENDİRİLMESİNE İLİŞKİN YAKLAŞIMLAR

Hayri ERTAN* Şeref ÇİÇEK**

ABSTRACT: Grading criteria in physical education and assessment through teachers' and students' perception was investigated in this study. Research question guiding this study was "what is physical education teachers' and students' perception of assessment and grading criteria in physical education?" 50 PE teachers and 306 students participated in this study. Two different questionnaire were administered to measure PE teachers' and students' perceptions about assessment in physical education. First part of the questionnaire included demographic information and second part consisted of 26 questions related to assessment in PE class. The questionnaire distributed to 25 private and 25 public school PE teachers and total 306 eight grade students from five private and five public schools. Descriptive statistics (frequency and percentage) was used to analyze data. The results indicated that the private school PE teachers always preferred to use command and practice style. However, the public school PE teachers were most frequently using command style. Both public and private school PE teachers mostly preferred to use practice exam in assessment of PE course. Attendance and doing ones best in achieving objectives were indicated the most important student behaviors to evaluate student success in PE courses according to private and public school PE teachers. According to findings, PE teachers basically using summative evaluation, which gives the idea about the product rather than the process.

Keywords: physical education, student achievement, evaluation.

ÖZET: Bu çalışmada, beden eğitiminde not verme ve değerlendirme yaklaşımlarını hem öğretmen ve hemde öğrenci bakış açısıyla değerlendirmek amaçlanmıştır. Bu araştırma kapsamında sorulan temel soru, "beden eğitimi öğretmen ve öğrencilerinin değerlendirme (not verme) kriterlerini nasıl algılamaktadırlar?" olmuştur. Araştırmaya 50 BE öğretmeni ve 306 öğrenci katılmıştır. Öğretmen ve öğrencilerin BE derslerinde değerlendirme ilişkin algılarını ölçmek üzere iki ayrı anket formu uygulanmıştır. Anket formları demografik bilgiler ve

BE dersinde değerlendirmeye ilişkin iki bölümden oluşmuştur. Anketler 25 özel okul ve 25 devlet okulu öğretmenine ve 5 özel okul ve 5 devlet okulundan toplam 306 öğrenciye uygulanmıştır. Verilerin analizinde tanımlayıcı (sıklık ve yüzde) kullanılmıştır. Bulgulara göre komut ve alıştıurma yöntemleri özel okul BE öğretmenlerinin en çok kullandıkları öğretim yöntemleridir. Bunun aksine, devlet okulu BE öğretmenleri komut yöntemini daha sık kullanmışlardır. Uygulamalı sınav şekli hem özel okul ve hem de devlet okulu öğretmenlerinin BE dersinde en çok tercih ettikleri değerlendirme yöntemidir. BE öğretmenleri derse katılımı ve öğrencinin yapabileceğinin en iyisini yapmaya çalışmasını en önemli değerlendirme kriterleri olarak göstermişlerdir. Bu çalışmanın bulgularına göre BE öğretmenlerinin süreçten çok sonucu değerlendirmeye yönelik uygulamalar yaptıkları ortaya çıkmıştır.

Anahtar Sözcükler: beden eğitimi, öğrenci başarısı, değerlendirme.

1. INTRODUCTION

Evaluation is an important aspect of the PE programs. In addition to monitoring and reporting student progress, evaluation of both teaching practices and the effectiveness of the overall PE program will be required. Evaluation in PE is a process of determining whether the goals of an individual, a group, or a program are being reached. It is an ongoing process of measuring the effectiveness of a teaching strategy, the level of skill development of an individual child or class, and the efficacy of a unit of instruction or a total program. Its purpose can be to evaluate progress, to motivate a child, or to provide effective ways of reporting a child's progress to parents (Kirchner & Fishburne, 1995).

* Arş. Gör., Hacettepe Üniversitesi, Eğitim Fakültesi-Ankara

** Prof. Dr., Hacettepe Üniversitesi, Eğitim Fakültesi-Ankara

Evaluation also is a direct way for teachers to assess their effectiveness. If the children are learning what the teacher intends them to learn, then the instructor has some assurance that he/she has been successful. But if the children show little or no improvement, then the teacher has no reason to question his/her effectiveness (Graham, Holt, & Parker, 1987). Evaluation can be divided into two types: (1) Summative, and (2) Formative. *Summative evaluation* is generally performed as a culminating activity after a unit or series of lessons to indicate a student's ability when he/she has completed the study of a particular skill. In comparison, *formative evaluation* is frequent, even daily, assessment of a child's abilities, knowledge, or attitudes. The teacher incorporates this information into lessons that give the child appropriate experience (Graham et. al, 1987).

The contemporary goals of elementary PE stress improving physical fitness and well being, enhancing skill development, fostering good interpersonal relations, and developing positive attitudes toward physical activity. The implication of these goals is that formative and summative evaluation of student progress must include techniques that measure both quantitative and qualitative aspect of the child's development. Quantitative aspects, such as physical fitness and skill development, are usually measured by *norm-referenced* tests (Kirchner & Fishburne, 1995).

Norm referenced assessment of child's fitness and skill development has been used in elementary physical education programs for decades. The posture and health-related physical fitness tests provide objective measures of child's postures, cardio respiratory endurance, body composition and flexibility. These objective test batteries are used to assess individual levels of fitness and to prescribe remedial programs where warranted (Kirchner & Fishburne, 1995).

Although educators are aware that students differ in many ways, they are, however, sometimes unconcerned about individual differences. Suppose, for example, a PE teacher identifies a cardio

respiratory function objective for his/her class and plans to use a test of the mile run to measure this objective. A standard that reflects a satisfactory level of cardio respiratory endurance is also set for the test. For example, a standard for 7 minutes and 30 seconds is set for 16-year-old boys. In other words, the goal for each 16-year-old boy in a class is to run the mile in 7:30 by the end of the school year. This type of test is called as a *criterion-referenced* test. A standard of performance is set that all or most students are expected to meet (Safrit & Wood, 1995).

There are few uses of measurement and evaluation in PE and the exercise sciences. Tests are frequently administered for *motivational* purposes. A skill test might be administered in a PE class to encourage students to improve their skills further. The test should be used as a positive factor in performance before, during, and after the test administration.

Grading is the process of assigning marks to the students based on a formal assessment of changes in student behavior. Objective grading promotes student interest, increases student motivation and, increases student understanding of performance, and assesses the effectiveness of instruction (Hensley, 1990; Imwold, Rider, & Johnson, 1982; Veal, 1988). The formal assessment is a pre-planned technique that produces a written record of performance, knowledge, or behavior (Veal, 1988). The formal assessment, systematic evaluation and objective grading will be referred to as the assessment process. Ideally teacher plans for each part of assessment process as a part of the overall teaching learning experience (Dunham, 1994). A quality physical education program that meets the above criteria also provides a measure of accountability for the profession

In reality however, systematic evaluation, formal assessment, and objective grading (based on assessment and evaluation) are infrequent in physical education (Imwold et al., 1982), Assessment issues in physical education have changed little in the past two decades (Hensley,

1990; Imwold et al., 1982, Morrow, 1978). Inattention to the assessment process has led to a generation of physical education teachers who do not put measurement knowledge to use (Veal, 1990), which is incongruous with research suggesting that the assessment process is an essential component of the teaching learning experience (Boyce, 1990; Hensley, 2000; Safrit & Wood, 1995; Veal, 1988).

Student perception of grading is also important for accountability of physical education in schools. This field is not studied so much in physical education assessment research. Student should believe and to value formal assessment for grading. If they perceive teachers' assessment is completely subjective and grading is occurred mainly non-instructional behaviors of students, this may decrease their motivation toward physical education teaching. If students are held formally accountable (in terms of grading), they will put forth more effort and remain on task (Matanin & Tannehill, 1994).

In this study, grading criteria in physical education and assessment through teachers' and students' perception was investigated by the researcher. Research question guiding this study was "what is physical education teachers' and students' perception of assessment (grading) criteria in physical education?"

2. METHOD

2.1 Subjects

Fifty PE teachers participated in this study, 25 of them were from eight different private (out of

57 private schools) and 25 were from fifteen different (out of 961 public schools) public schools. The schools were randomly selected from different regions of Ankara (Table 2.1). Totally 306 students, 129 private (out of 18.026) and 177 public (out of 531.863) school students, took part in this study. All of the students were eight graders (Ministry Of National Education, 2001). The average numbers of students in each class both in private and public schools, their 2000-2001 academic year first semester's average PE marks, average ages of the students and gender information were presented in Table 2.2.

2.2 Instrument

The questionnaire for PE teachers was prepared in two different parts. In the first part there were 12 questions about demographic parameters of PE teachers and about their schools. There were 3 basic questions with 26 sub items including open-ended questions in the second part of the questionnaire. These questions were about facilities in their schools, teaching styles that the PE teachers used, and evaluation priorities. The second questionnaire was prepared for 8 grade students. As like PE teachers', this instrument also has two different parts. There were demographic questions about the

Table 2.1. Demographic Characteristics of PE Teachers

School Type (N)	Gender (N) (Year)	Age (Year)	Experience Private
(8)	Female (15)	34±1.4	11.3±3.9
	Male (10)	31±1.0	7±2.1
Public (15)	Female (10)	32.5±3.6	11.5±3.6
	Male (15)	33.6±2.9	12.6±2.5

Table 2.2. Demographic Characteristics of Students in PE Class

Characteristics	Private Schools				Public Schools			
	Mean ±Std.	Min.	Max.	N	Mean ± Std.	Min.	Max.	N
Num. of Stds	29.6 ± 2.32	25	32	129	39.74 ±3.33	34	44	177
Achievement	4.20 ± 0.71	3	5	129	3.03 ± 1.17	1	5	177
Age	13.35 ± 0.4	13	14	129	14.15 ± 0.7	13	16	177
Female	13.26 ± 0.4	13	14	68	13.52 ± 0.8	13	15	90
Male	13.46 ± 0.5	13	14	61	14.2 ± 1.1	13	16	87

students who have participated in this study in the first part. Beside this, there were questions, which were directed to get perception of the students about evaluation procedures that their teachers were using.

2.3 Procedure

Teacher and student questionnaire were distributed to 32 private and 35 public school teachers between the dates of 15 – 30 May 2001. From PE teachers' questionnaire twenty five from private and 25 from public schools were completed and returned to the researchers. Three of the questionnaires were not useful for reaching the purpose of the current study.

The students' questionnaire for the 8 grade were administered to the students during PE class by PE teachers between the dates of 15 – 30 May 2001 to 5 private and 5 public schools from the different regions of Ankara. PE teachers were asked to distribute the questionnaire at the beginning of PE class.

3. RESULTS

The purpose of this study was to find out assessment methods and criteria used by PE teachers in PE course from the teachers and students perspectives in public and private schools in Ankara. The following results were found after analysis of data gathered from both PE teachers and eight grade students.

3.1 The Results of PE Teachers' Perception of Assessment in PE Course

The demographic parameters were measured in the first part of the questionnaire. The average work load were found 16 hours per week for private school PE teachers, and 20 hours for public school PE teachers. None of the private school teachers were using course book for teaching PE class. On the other hand, 20 % of public school teachers implied that they were using course book. None of the subjects (out of 50) have taken in-service education before. Beside this, 40 % of private and 20 % of public school PE

teachers have reported that they needed to take in-service education.

As indicated in Table 3.1. private schools had higher opportunities than the public schools in terms of having adequate sport facilities and equipment for teaching PE class. The facilities of the private schools were found completely sufficient for PE course. However, the facilities of the public schools were found quite sufficient to teach PE class. All of the private schools, which involved in this study had indoor sports hall. Contrary, none of the public schools had indoor sports hall.

Table 3.1. Sufficiency of Sport Facilities and Equipment in Private and Public Schools

School Type	Num. of Teachers	Facility	Equipment
Private	25	4.20*	4.60
Public	25	2.20	2.40

*5: Completely sufficient, 4: Sufficient, 3: Partly sufficient, 2: Quite sufficient, 1: Not sufficient at all

The first question of the second part was “which of the following teaching styles were used, and how frequently they should be used” in PE class. The answers for this question were shown in Table 3.2. The private school PE teachers always preferred to use command and practice style. They frequently preferred to use Lecturing and Reciprocal styles in their PE class. Their recommendation for usage frequency of teaching styles was almost same with styles that they were using in their lessons. However, the public school PE teachers were most frequently using Command style for teaching PE class. They were frequently using Lecturing and Practice styles.

The PE teachers were asked to rank their usage of assessment types to evaluate the student's achievement in PE class. Their answers to this question were as follows: Both public and private school PE teachers ranked “Practice exam” in the first place. They both put the “Student attendance” in the second place. The third place was given to “participating sports teams, national days, and ceremonies”. “Giving homework” was placed as

Table 3.2. The Frequency of Using Teaching Styles and Recommendations for Usage of Teaching Styles by Public and Private School PE Teachers

Teaching Styles	Private School (N=25)		Public School (N=25)	
	How frequently you use	How frequently should be use	How frequently you use	How frequently should be used
Lecturing Style	4.00*	4.00	4.40	4.40
Command Style	5.00	5.00	4.80	4.80
Practice Style	5.00	4.80	4.20	3.60
Reciprocal Style	4.20	4.40	3.80	4.20
Self-check Style	2.80	3.20	2.80	3.00
Questioning Style	3.40	3.40	2.20	2.40
Problem Solving Style	3.00	3.00	2.40	2.40

*5:Always, 4:Frequently, 3:Occasionally, 2:Seldom, 1:Never.

forth and “Verbal exam was in the fifth place. Finally, “written exam” ranked in the sixth place by PE teachers. 60 % of private and 40 % of public school PE teachers signed interest of student to PE class as important criteria for the assessment.

The final question that was directed to PE teachers was the role of student behaviors in being successful in PE courses. The results of this question were shown in Table 3.3. Findings indicated that both public and private school PE teachers perceived “Attendance to PE class” and “doing ones best in achieving objectives” were the most important student behaviors for achievement in PE class.

3.2 The Results of the 8th Grade Students’ Perception of Assessment in PE Course

The results about eight grade students’ perception of assessment in PE class were given in the table 3.4. The students were asked to indicate importance of student behaviors in being successful in PE courses

The private school students gave the highest importance score to “doing ones best in achieving objectives” and “showing interest, motivation, giving importance to the course”. Public school students were also perceived “attendance to the PE class” very important for achievement in PE class. “Being continuously active in the course”

Table 3.3. Degree of Private and Public School PE Teachers’ Perception of Student Behavior as Assessment Criteria in PE Class

Student Behavior	Private School (N=25)	Public School (N=25)
Having an appropriate physical appearance	3.8*	3.4
Being a member of school sports team	3.6	3.4
Being continuously active in the courses	4.6	3.2
Attendance to the course	5.0	4.4
Preparation before the lesson	4.0	2.4
Having good communication with teacher	4.8	4.2
Showing interest, motivation, giving importance to the course	4.8	4.0
Trying to do his/her best in achieving objectives	5.0	4.6
Repetition of the subjects at home	2.6	1.8

*5: Very important, 4: Important, 3: Little important, 2: Rarely important, 1: Not important at all

Table 3.4. Degree of Private and Public School Students' Perception of Student Behavior as Assessment Criteria in PE Class

Student Behavior	Private School (N=129)	Public School (N=177)
Having an appropriate physical appearance	3.72*	4.18
Being a member of sports team	3.40	3.18
Being continuously active in the courses	3.79	4.24
Attendance to the course	4.04	4.48
Preparation before the lesson	3.44	4.27
Having good communication with teacher	4.18	4.53
Showing interest, motivation, giving importance to the course	4.29	4.45
Trying to do his/her best in achieving objectives	4.50	4.29
Repetition of the subjects at home	2.60	3.38

*5: Very important, 4: Important, 3: Little important, 2: Rarely important, 1: Not important at all.

was perceived as very important assessment criteria in PE class by public school students.

The next question that was directed to private and public school students was frequency of using different assessment types in PE class. Findings indicated that both private and public school students PE teachers were most frequently preferred to use "practice exam" type for assessment in PE class. The private school students also reported that their teachers occasionally using "verbal examination". The final question that was directed to private and public school students were "are the exams sufficient in measuring your achievement?" answered as follow: Both public and private school students found exams sufficient in measuring their success.

4. DISCUSSION AND CONCLUSION

Both in public and private school teachers were not using any course book and they did not take in-service education. Half of them did not want to take in-service education. PE teachers who volunteered in this study did not tend to teach theoretical knowledge in general. However, there were a lots of theoretical content related with PE. These theoretical areas could be taught in the course. The lack of theoretical subjects teaching in

PE class might be a result of limited PE class hours (2 hours/week). Contrary, a PE teacher may assign homework to improve student's theoretical knowledge in this area. Homework is a potential solution to the already small and still-shrinking amount of instructional time in PE.

Teachers who have volunteered to this study were mostly using teacher centered teaching styles. Private school teachers ranked "command style" and "practice style" as the most preferred teaching styles. They mentioned that they were using "reciprocal style" in the third order. Beside this, public school teachers were most commonly using the "command", "lecturing", and "practice" styles (Table 3.2). The role of teacher is generally to make all the decisions in the pre-impact, impact, and post-impact sets in command style. The learner's role is to perform, and to follow. The following objectives can be reached by command style: immediate response to a stimulus, uniformity, conformity, synchronized performance, adherence to a predetermined model, replication of a model, precision and accuracy of the response, perpetuation of cultural traditions via ceremonies, customs, costumes, efficiency in time using, safety, and others.

The major difference between the realities of the command style and the practice style is the use

of time. In the practice style a unit of time is available to the learner for practicing the task(s) after deciding when to start each task, the place and the rhythm of performing each task (Mosston and Ashworth, 1994).

Mosston and Ashworth (1994) indicated that teachers are encouraged to go beyond command style teaching and to focus on inclusion, reciprocal, and discovery styles that promote individual learning and peer interaction. Skill development should be based on learning in cooperative environment with different levels of competitive games. This environment would students to work together to accomplish activity goals. Different homogeneous and heterogeneous strategies should be used for grouping students during competition to promote learning and mutual enjoyment of the activity (Carleton and Henrick, 2000). Beside this, cooperative learning has been promoted to offer an excellent opportunity for positive outcomes across the psychomotor, cognitive and affective domains (Dyson and Grineski, 2001).

Both private and public school PE teachers preferred to use “attendance” and “trying to do his/her best in achieving objectives” for assessment of student achievement in PE class. “Having good communication with teacher”, and “showing interest, motivation, giving importance to the course” were also indicated as other important criteria for assessment in PE class. However, they did not give credit to criteria “repeat the subject at home”. Public school and private school PE teachers perceived the following two criteria differently. Public school PE teachers perceived “being continuously active in the course” and “preparation before the lesson” as less important criteria for assessment of student achievement. The reason for this may be explained by public school PE teachers’ attitude to use participation as main criteria for assessment. Many public schools have not adequate sport facilities and equipment for PE class (Çiçek, Kirazcı, & Koçak, 2001). Since public school PE teacher were not effectively teach PE class, they may give less importance to skill development as an assessment criteria in PE class.

Carleton and Henrich (2000) suggested that during the evaluation process, students need a supportive and secure environment that will allow optimal performance. Other students should be on task, not viewing the testing. Schincariol and Radford (1998) promote the idea that, without the proper use of formative assessment, summative evaluation is not sufficient to enhance learning. Formative skill testing should be done at least twice before summative skill testing (Carleton and Henrich 2000). In this manner student will receive valuable information for improving performance and preparing for the final test.

Instructors can monitor their planning process, instruction, and summative and formative evaluation procedures. Changes can be made for future lessons based on the information gained from reflective thinking. All students will enjoy a positive learning environment based on their needs and on the expertise of the teacher.

The private and public school students anticipate differently what their teachers want to do in evaluation of success. The private school teachers gave importance to “being continuously active in the courses”. However, their students found this topic little important. Beside this, “having an appropriate physical appearance” was not important according to public school PE teachers. But their students found this behavior very important.

According to findings PE teachers basically using summative evaluation procedures. They promote the student behavior that “trying to do his/her best in achieving objectives”. Summative evaluation gives the idea about the product rather than the process. On the other hand, some of the evaluation types, which were used by participated teacher, could not be categorized in any type. “Attendance to the course” was signed as very important by private school teachers and as important by public school PE teachers. These behaviors do not give idea about the student’s achievement, physical fitness level, and skill development.

In conclusion, PE teachers perceived non-instructional behaviors of students such as attendance, effort, participation as an important assessment criteria in PE class but they preferred to use practical exam which is mainly used for evaluation of physical skill of students in PE. They need to use both cognitive, affective and psychomotor behavior assessment technique for effective student evaluation in PE class. It also seemed that students perceived some assessment criteria different than PE teachers. PE teachers should inform their students about assessment criteria and grading procedure in PE class.

5. REFERENCES

- Boyce, B.A. (August, 1990). Grading practices-how do they influence student skill performance? *Journal of Physical Education, Recreation and Dance*. 46-48.
- Cicek, S., Kirazcı S., & Koçak, S. (2001). *Türkiye'de ilköğretimin ikinci kademesinde beden eğitimi öğretiminin analizi*. Ankara: Milli Eğitim Bakanlığı, Eğitimi Araştırma ve Geliştirme Dairesi (EARGED) Yayınları, Yayın No: 117.
- Carleton B., Henrich, T. (2000). Strategies for enhancing the performance of low-skilled students. *Journal of Physical Education, Recreation and Dance*, 71(2), 28 – 32.
- Dunham, P. (1994). *Evaluation for physical education*. Englewood, CO: Morton.
- Dyson, B., Grineski, S. (2001). Using cooperative learning structures in physical education. *Journal of Physical Education, Recreation and Dance*, 72(2),27-32.
- Graham, G., Holt, S. A., Parker, M. (1987). *Children moving: A teacher's guide to develop a successful physical education program*. (2nd Ed). Myfield Pub. Company, 126-138.
- Hensley, L.D. (March, 1990). Current measurement and evaluation practices in professional PE. *Journal of Physical Education, Recreation and Dance*. 32-33.
- Hensley, L. D. (2000). Measurement for evaluation in physical education and exercise science. <<http://ehostvgw15.epnet.com/fulltext.asp>>.
- Imwold, C. H., Rider, R. A., & Johnson, D. J. (1982). The use of evaluation in public school physical education programs. *Journal of Teaching in Physical Education*, 2 (1), 13-18.
- Kirchner, G. & Fishburne, G. (1995). *Physical Education for Elementary School Children*. Dubuque, IA: brown & benchmark
- Matanin, M. & Tannehill, D. (1994). Assessment and grading in physical education. *Journal of Teaching in Physical Education*, 13, 95-405.
- Ministry Of National Education (2001). Statistics. <<http://www.meb.gov.tr/APK>> (2003, November 12).
- Mitchell, M., Barton, G. V., Stanne, K. (2000). The role of homework in helping students Meet physical Education goals. *Journal of Physical Education, Recreation and Dance*, 71 (5), 29 – 35.
- Morrow, J.R. (1978). Measurement techniques-who uses them? *Journal of Physical Education, Recreation and Dance*, 49, 66 – 67.
- Mosston, M. & Ashworth, S. (1994). *Teaching in physical education*.(4th Ed.). Macmillancollege publishing company.
- Randall, E. L. (1992). *Systematic supervision for physical education*. Campaign, IL: human kinetics.
- Safrit, M. J., & Wood, T. M. (1995). *Introduction to measurement in physical education and exercise science* (3rd ed.). Dubuque, IA: WCB McGraw-Hill.
- Schincariol, L. M. & Radford, K. W. (1998). Checklists and rubrics: an alternative form of assessment in a university volleyball activity course. *Journal of Physical Education, Recreation and Dance*, 69(1), 25-32
- Veal, ML (1988). Pupil assessment perceptions and practices of secondary teachers. *Journal of Teaching in Physical Education*, 7, 327-342.