academicJournals

Vol. 12(16), pp. 811-816, 23 August, 2017 DOI: 10.5897/ERR2017.3303 Article Number: 62D65B265577 ISSN 1990-3839 Copyright © 2017 Author(s) retain the copyright of this article http://www.academicjournals.org/ERR

Educational Research and Reviews

Full Length Research Paper

Evaluation of the physical education and sports curriculum in Turkish schools

Ahmet Sadan Okmen

Department of Classroom Teaching Education, Faculty of Education, Mugla Sitki Kocman University, Merkez, Muğla, Turkey.

Received 18 June, 2017; Accepted 9 August, 2017

This study assesses the vocational education courses given in schools of physical education and sport at Turkish universities and their use in the life of professionals. This study investigates 55 male and 25 female participants, aged 24 to 49, randomly selected from among the physical education and sport teachers in government and private schools in the cities of Edirne, Tekirdag, and Kırklareli of the Trakya region of Turkey. The evaluation form includes 72 courses (questions) taken by the participants from departments of physical education and sport at universities in Turkey. The participants were given four weeks to assess the courses on the evaluation form according to their professional past experience. The participants gave scores from 0 (unimportant) to 5 (very important) to all courses. According to the study, in the opinion of physical education and sport teachers, some of the courses were not needed in their professional careers: (1) practical courses (education: wrestling, mountaineering, ski, judo, etc.), (2) theoretical courses (education: statistics, seminars and projects, Olympic sports, etc.) and (3) pedagogical formation (education sociology). As a result of this study, it was argued that the courses that received low scores on the evaluation should be re-evaluated or eliminated from the curriculum. Moreover, the course hours and contents could be rearranged and developed.

Keywords: Curriculum, physical education, sport, teacher, university.

INTRODUCTION

The roots of the curriculum field go back to the days of Herbert (1776-1841), who taught that learning requires an orderly attention for the selection and organization of subject matter. Herbert's views were applicable to physical education as well as other educational fields, and he was one of the first thinkers to recognize the essential nature of a properly conceived and structured program of physical activity (Willgoose, 1984).

Throughout the years, school systems became "curriculum-conscious" as they developed and revised

their subject matter plans (Siedentop, 1980). Caswell (1966) highlighted three important considerations: (1) The establishment of a consistent relationship between general goals and specific objectives to guide teachers, (2) a sound sequence of courses with continuity in the curriculum, and (3) ensuring balance in the curriculum. More recently, Haas (1977) extended these curricular considerations to include a concern for social forces as reflected in social goals, cultural uniformity and diversity, social pressures, social change, future planning, and

E-mail: sadanokmen@gmail.com.

Authors agree that this article remain permanently open access under the terms of the <u>Creative Commons Attribution</u> <u>License 4.0 International License</u>

concepts of culture.

Physical education has reached a level of sophistication at which serious thought can and should be given to a carefully reasoned and well-designed curriculum for the learner, one that can replace the disjointed divisions of the past and present (Willgoose, 1984).

Physical education in schools across the globe has undergone significant developments over the past century; however, for many years there has been much international concern about the status and future of this subject area (Dodds and Locke, 1984; Dunn, 2009; Hardman, 2013; Kirk, 2010; Lawson, 1998; Macdonald and Brooker, 1997; Onofre et al., 2012a, b; Sanders and McCrum, 1999; Tinning and Fitzclarence, 1992; Stier et al., 1994). Researchers have investigated the status of physical education in particular regions, nations, and internationally, with many of these investigations taking the form of surveys or case studies (Hardman, 2008, 2013; Hickson et al., 2012; Luke, 2000; Onofre et al., 2012a, b; Rivard and Beaudoin, 2005). Many of these investigations have included some examination of physical education curricula; however, there is a dearth of in-depth physical education curriculum document analysis.

Teachers are now performing their duties in a globalizing world where information and technology improve very quickly, national borders have started to disappear and intercultural interactions and communication increase. In order to educate teachers in such circumstances, changes made to education faculties and teacher training programs are important (Çelikten et al., 2005).

According to Locke (1984), physical educators should plan lessons in advance, adapt lessons to the needs of individual students, provide adequate opportunities to contribute to fitness, provide positive reinforcement for learning, avoid time-wasting managerial tasks, provide prompt and specific feedback for practice tasks, and provide clear models for desired learning. Balancing an ideal mix of subject matter content and pedagogical knowledge in the education of future teachers is an important issue (Ball, 2000). Teacher education programs are therefore faced with the challenging task of deciding what kinds of, and how much subject matter content and pedagogy preparation are needed for prospective teachers.

However, the education of physical education (PE) teachers has not been widely explored (Dodds, 2006). Although, the subject matter content knowledge and pedagogical knowledge are critical indicators of highly qualified PE teachers, little is known about how these types of knowledge are taught in Physical Education Teacher Education (PETE) programs.

"PETE programs are designed to facilitate preservice teachers' progress toward being deemed 'highly qualified'

upon entrance into the profession" (NASPE, 2007a). PETE programs should be accredited based on PETE standards and the faculty should model passion, reflection, and dedication (Napper-Owens et al., 2008). PETE programs should provide preservice teachers with substantial pedagogical and content knowledge bases; afford many opportunities for preservice teachers to participate in an array of field experiences where they can interact with veteran teachers and diverse students at all grade levels, while seeing the application of classroom principles and develop, nurture, and reinforce specific professional behaviors that facilitate student learning (NASPE, 2007b).

Highly qualified teachers need to contribute to their schools outside of their respective classrooms as well. For example, other important responsibilities that help define a "highly qualified teacher" include demonstrating professionalism and ethical behavior in the learning environment through positive interactions with students, colleagues, administrators, and community members (NASPE, 2007a; Yanik and Çamliyer, 2015).

Although most of the criticisms of curriculum in physical education and sports have some merit, most problems are not caused by the use of curriculum in physical education and sports, but by its misuse. In most cases, a curriculum provides results that are more objective, accurate, and relevant. What is needed is a more professional use of the curriculum in physical education and sports with a greater emphasis on ways it can be used to improve pupil learning and development (Gronlund and Liin, 1990).

A curriculum model is a general pattern for creating or shaping program designs in educational settings; the model incorporates a conceptual framework and should be consistent with the theory upon which the framework is based (Jewett et al., 1995). Physical educators study curriculum theories in order to clarify educational philosophies and develop new perspectives. The nature and quality of future PE programs will depend largely on the insights and commitments of the professionals responsible for future curricular decision making (Bahneman, 1996).

Research in PETE programs has focused on curriculum alignment (Bulger et al., 2008); general descriptions of the curriculum, coursework, and practical experience of the teacher candidates (Ayers and Housner, 2008; Hetland and Strand, 2010); and the infusion of diversity within the curriculum (Burden et al., 2004).

In Turkey, as a result of changes in 1982, the duty of educating teachers was taken from the Ministry of National Education and vested in the universities. Within this period, the education faculties have significantly contributed to educating the qualified teachers that our educational system needs. With the establishment of a comprehensive program that started in the 2006/2007

academic year, the courses were classified as MB (Professional Knowledge), GK (General Culture), and AB (Area Knowledge). The content of optional courses was classified as AB, GK, and MB by the Council of Higher Education (YOK), but the courses are chosen individually by universities.

Therefore, the main purpose of this study was to investigate and describe the curriculum in Physical Education and Sports (PES), and courses given by the PES schools were evaluated to determine which courses were considered very important or unimportant. The questions in the public survey give the names of courses that are the same throughout all PES schools in Turkey.

Based on previous literature and experiences, this study discusses and evaluates the curriculum in PES. The study research question was whether the curriculum used in PES schools was useful to every city in Turkey. In addition, the study attempts to contribute to making good the common lack of knowledge of the curriculum of PES schools.

METHODOLOGY

Participants

The sample set of this study was selected from among PES teachers working in government and private schools in the cities of Edirne, Tekirdag, and Kırklareli in the Trakya Region of Turkey. The evaluation form was given to female (n = 25) and male (n = 55) respondents, for a total of 80 participants. Their ages were between 24 and 49 years old and they agreed voluntarily to participate in the study. The occupational experience of the participants ranged from 3 to 25 years. The participants in the study were randomly selected.

Instruments

Public survey

The public survey in this study includes 72 courses (22 practical, 36 theoretical, and 14 pedagogical formation courses) offered by PES departments of universities in Turkey. The participants scored all courses taken at universities in Turkey from 0 (unimportant) to 5 (very important). The purpose of this research is to determine which courses are more important and those that are considered unimportant in the PES curriculum, using the concepts of a "Likert Scale" and "Likert-type items". The participants completed the evaluation form within four weeks.

Data analysis

Statistical analysis was performed using the Statistical Package for Social Sciences (SPSS). All data collected through the public survey were analysed by descriptive statistics, particularly the mean (X) and standard deviation (SD).

RESULTS

As stated earlier, 80 PES teachers (25 females and 55

males) participated in the study. The means and standard deviations of the ages of the educators were 33.8 ± 8.0 years and their years of experience were 9.6 ± 6.8 years, with a minimum of 3 years and a maximum of 25 years.

Table 1 shows that practical lessons that are rated effective in schools in Turkey are basketball, celebratory ceremony, volleyball, soccer, track and field, handball, gymnastics and table tennis. Table 2 shows that PES teachers indicated that theoretical courses in the PES teaching departments at universities were effective and necessary in their professional life.

Table 3 shows that PES teachers indicated that the pedagogical formation courses they learned at university faculty were effective in their professional lives.

DISCUSSION

A well-trained PE teacher should be able to effectively perform sports activities as well as teach them effectively. For this reason, programs that train physical educators should aim at developing the skills related to physical activities as well as developing teaching behaviours related to them.

The aim of a PE program is to create an environment for acquiring knowledge and competence in fundamental motor skills, physical fitness, athletics, swimming and other water sports, sports and games, leisure activities, dance, rhythmic gymnastics, and outdoor activities (Prskalo et al., 2007). However, highly qualified PE teachers understand the importance of meeting the needs of all types of learners and should use the outcomes provided in the national standards to elicit ideas for a variety of instructional strategies to do so. Students should be encouraged to be physically active inside and outside of the school setting.

The results of this study demonstrated that the PE courses in Table 1 should be widely encouraged in the PES curriculum. Acıkada (1992) found results similar to those of our study. Most of the same courses listed in Table 2 were found very important for PES teachers (Acıkada, 1992). The content of teacher education programs should align with extant subject matter standards. This means that the formal study of teaching should focus on teaching important ideas in core academic subjects rather than on generic teaching skills such as lesson planning and classroom management (Kennedy, 1997). The content of teacher education programs should emphasize the relationship between teaching and learning (McIntyre, 1996).

"In an ideal world, PETE programs would provide prospective teachers with subject-matter knowledge related to the physiology, anatomy, and neuromuscular structures of the body, and an understanding of how these systems respond and adapt to physical activity" (Bulger et al., 2008). Indeed in our study, anatomy and

Table 1. Practical courses taken in department of physical education and sports in universities.

| Physical education and sports (Practical Courses) (n=80) | X ± SD | Physical education and sports (Theoretical Courses) (n=80) | X ± SD |
|--|-----------------|--|-----------------|
| Basketball | 4.78 ± 0.42 | Artistic gymnastics | 2.72 ± 1.02 |
| Celebratory ceremony | 4.78 ± 0.49 | Tennis (Court) | 2.63 ± 1.50 |
| Volleyball | 4.75 ± 0.51 | Badminton | 2.53 ± 1.50 |
| Soccer | 4.66 ± 0.65 | Wrestling | 1.87 ± 1.45 |
| Track and field | 4.62 ± 0.61 | Mountaineering | 1.69 ± 1.51 |
| Handball | 4.59 ± 0.80 | Bicycle | 1.66 ± 1.56 |
| Gymnastics | 4.50 ± 0.72 | Archery | 1.59 ± 1.50 |
| Table tennis | 4.09 ± 1.09 | Ski | 1.56 ± 1.59 |
| Rhythm education and sports | 3.66 ± 1.36 | Judo | 1.53 ± 1.39 |
| Swimming | 2.94 ± 1.81 | Wrestling with oil | 1.34 ± 1.49 |
| Rhythmic gymnastics | 2.91 ± 1.47 | Golf | 1.06 ± 1.29 |

X: Mean; SD: standard deviation.

Table 2. Theoretical courses taken in department of Physical Education and Sports in Universities.

| Physical education and sports (Theoretical Courses) (n=80) | X ± SD | Physical education and sports (Theoretical Courses) (n=80) | X ± SD |
|--|-----------------|--|-----------------|
| First aid and lifeguard | 4.81 ± 0.47 | Human anatomy and kinesiology | 3.94 ± 0.95 |
| Training theory | 4.75 ± 0.57 | Recreation and leadership | 3.88 ± 0.91 |
| Health education | 4.66 ± 0.60 | Advance training theory | 3.81 ± 1.40 |
| Sports injuries and rehabilitation | 4.56 ± 0.76 | Computer apparatus in PES | 3.78 ± 1.01 |
| Educational games | 4.56 ± 0.67 | Sports physiology | 3.72 ± 1.02 |
| Talent identification in sports | 4.50 ± 0.84 | Scientific research methods in PES | 3.66 ± 1.07 |
| Science in sports and training | 4.50 ± 0.98 | Game analysis in PES | 3.66 ± 1.34 |
| Child and sports | 4.44 ± 0.72 | Sports sociology | 3.53 ± 1.02 |
| Skill learning in PES | 4.34 ± 0.83 | Performance test in PES | 3.41 ± 1.34 |
| Introduction to PES | 4.31 ± 1.03 | Biomechanics in PES | 3.34 ± 1.21 |
| Motor development | 4.31 ± 0.86 | Sports and folk science | 3.34 ± 1.21 |
| Physical fitness | 4.22 ± 0.79 | Sports philosophy | 3.28 ± 1.11 |
| Nutrition in sports | 4.19 ± 0.86 | Sports history | 3.25 ± 1.11 |
| Sports for life | 4.16 ± 0.77 | Sports and industry | 3.16 ± 1.25 |
| Education in Turkish folk dance | 4.06 ± 1.29 | Sports and media | 3.00 ± 1.27 |
| Sports psychology | 4.09 ± 0.82 | Olympic | 2.97 ± 1.36 |
| Exercises and Illness | 4.00 ± 1.02 | Seminar and project | 2.97 ± 1.38 |
| PES for handicapped | 3.97 ± 1.26 | Statistics | 2.97 ± 1.33 |

X: Mean, SD: standard deviation.

physiology were considered important lessons that were rated between 3.00 and 4.50 (Table 2).

PETE faculty must be able to prepare future physical educators for roles and responsibilities that are fundamentally different from those of their predecessors (McKenzie and Kahan, 2004). "Highly qualified" adapted physical education teachers must possess comprehensive content knowledge in disability studies

(Kelly, 2006).

Ayers and Housner (2008) reported that field experiences are not limited exclusively to students teaching in PETE programs. O'Sullivan (1990) believed that observations and field experiences are very important for the K-12 PE experience. In our study, practical lessons in schools were described as important lessons that were rated between 3.00 and 4.50 (Table 2).

Table 3. Courses of pedagogical formation taken in faculty of education in universities.

| Course of education (n=80) | X ± SD | Course of education (n=80) | X ± SD |
|-------------------------------------|-----------------|---|-----------------|
| Teaching practice in PES | 4.75 ± 0.51 | Teaching and Development | 4.31 ± 0.80 |
| Planning and evaluation in teaching | 4.62 ± 0.61 | Technology and Material Development in Teaching | 4.19 ± 1.00 |
| Introduction to education | 4.53 ± 0.84 | PES Management and Organization in School | 4.09 ± 0.90 |
| Management in class | 4.50 ± 0.67 | Education Psychology | 4.09 ± 0.80 |
| Guidance | 4.47 ± 0.95 | Sports Pedagogy | 3.94 ± 1.20 |
| Special teaching methods in PES | 4.44 ± 0.72 | Education in Preschool | 3.94 ± 1.10 |
| Practice in school | 4 .41 ± 0.98 | Education Sociology | 3.53 ± 1.00 |

X: Mean; SD: standard deviation.

However, Collins (1991) stated that although a solid theoretical foundation is important in any practical endeavor, it may be more "efficacious to think in terms of engaging thoughtfully with theory and then, putting ourselves into practice rather than putting theory into practice". Put simply, serious engagement with theoretical ideas provides the stimulus to be critically reflective teachers, which in turn reveals itself in actual teaching.

School implementation constitutes one of the most important dimensions of pre-service teacher training. This implementation is very effective in gaining professional knowledge and skills (Harmandar et al., 2000). Numerous practicum experiences are required to prepare qualified physical educators; however, the quality of the experience must be considered (Hickson et al., 2006).

On the other hand, other courses included in PE and in Table 2 should be reduced or eliminated from the PES curriculum. According to Acıkada (1992), most of the same low-rated courses in Table 1 were found unimportant to PES teachers, a result similar to that of our study (Acıkada, 1992).

Also, according to our study, PES teachers wanted to take more than 50% practical courses rather than theoretical courses in the school curriculum. Martinek (1976) agrees that when students not only participate in physical activity but also truly share in decision making, they exhibit a higher self-concept than those students who do not participate.

Conclusion

Conclusively, the present study showed that the highlyrated courses in Table 1 should be supported in the PES curriculum, or that the courses offered in PES should be similar to those in Table 1. These courses can help the teachers in their work. The PE curriculum at teacher education institutions should be as close as possible to the PE curriculum at schools to be functionally supportive of the students' future professional work (Prskalo et al., 2007). PETE programs need to equip teachers with the requisite skills and knowledge, but also develop PES teachers who can understand the new generations of children and youths and the context of new times. Well-planned and continuous efforts are needed to secure the strongest support at all educational levels.

Future works will require more comprehensive curriculum review and restructuring.

CONFLICT OF INTERESTS

The authors has not declared any conflict of interests.

REFERENCES

Acıkada C (1992). Beden eğitimi ve spor öğretmeni yetiştirmede müfredat programı sorunları. I. Eğitim Kurumlarında Beden Eğitimi ve Spor Sempozyumu (19-21 Aralık). s.149-156.

Ayers SA, Housner LD (2008). A descriptive analysis of undergraduate PETE programs. J. Teach. Phys. Educ. 27:51-67.

Bahneman CP (1996). An analysis of the undergraduate physical education teacher certification requirements within institutions which offer a doctoral degree in physical education. Phys. Educator. 54:198-205.

Ball DL (2000). Bridging practices: intertwining content and pedagogy in teaching and learning to teach. J. Teach. Educ. 51:241-247.

Bulger SM, Housner LD, Lee AM (2008). Curriculum alignment: a view from physical education teacher education. J. Phys. Educ. Recreation Dance. 79(7):44-49.

Burden JW, Hodge SR, O'Bryant CP, Harrison L (2004). From colourblindness to intercultural sensitivity: infusing Diversity Training in PETE programs. Quest. 56:173-189.

Caswell HI (1966). Emergence of the curriculum as a field of professional work and study. *In:* Robison HP (Ed.). Precedents and promises in curriculum field. New York: Teachers College Press, 1-11.

Çelikten M, Şanal M, Yeni Y (2005). Öğretmenlik mesleği ve özellikleri. Erciyes Üniversitesi Sosyal Bilimler Enstitüsü Dergisi. 19(2):207-237.

Collins M (1991). Adult education as vocation: a critical role of the adult educator. London and New York: Routledge, 47.

Dodds P, Locke L (1984). Is physical education in American schools worth saving? Evidence, alternatives, judgment. *In:* Struna NL (Ed.). National Association of Physical Education in Higher Education Proceedings (Vol. 5). Champaign, IL: Human Kinetics.

Dodds P (2006). Physical education teacher education (PE/TE) policy.

- In Kirk D, Macdonald D, & O'Sullivan M. (Ed.). The handbook of physical education. Thousand Oaks, CA: Sage.
- Gronlund NE, Liin LR (1990). Measurement and evaluation in teaching. (6th Ed.). Macmillan Publishing.
- Dunn JM (2009). The times are a changing: implications for kinesiology. Quest. 61(3):269-277.
- Hardman K (2008). The situation of physical education in schools: A European perspective. Hum. Movement 9(1):5-18.
- Hardman K (2013). Global issues in physical education: Worldwide physical education survey III findings. Intl. J. Phys. Educ. 50(3):15-28.
- Harmandar M, Bayrakçeken S, Kıncal RY, Büyükkasap E, Kızılkaya S (2000). Kâzım Karabekir Eğitim Fakültesinde okul deneyimi uygulaması ve sonuçlarının değerlendirilmesi. Milli Eğitim Dergisi. 148:3-6
- Hass G (1977). Curriculum planning: A new approach, 2nd ed. Boston: Allyn & Bacon, P 6.
- Hetland KM, Strand B (2010). A descriptive analysis of undergraduate PETE programs in the central district. ICHPER-SD J. Res. *In:* Health, Phys. Educ. Recreation Sport Dance. 5(1):3-9.
- Hickson C, Fishburne G, Saby C, Berg S (2006). Physical education practicum experiences: are they helping preservice elementary school teachers Intl. J. Learn. 13(5):9-28.
- Hickson C, Robinson D, Berg S (2012). Active in the North community physical activity programming in Canada. Intl. J. Phys. Educ. 49(2):16-30.
- Jewett AE, Bain LL, Ennis CD (1995). The curriculum process in physical education. Madison, WI: Brown & Benchmark.
- Kelly L (2006). Adapted physical education national standards. (2nd ed.). Champaign, IL: Human Kinetics.
- Kennedy MM (1997). Defining an Ideal Teacher Education Program, https://www.msu.edu/~mkennedy/publications/Kennedy%20to%20NC ATE.pdf(July 04, 2017).
- Kirk D (2010). Physical education futures. London: Routledge.
- Lawson HA (1998). Here today, gone tomorrow? a framework for analysing the development, transformation, and disappearance of helping fields. Quest 50(2):225-237.
- Locke L (1984). Research on teaching teachers: Where are we now? J. Teaching Physic. Educ. Monog. 2:1-86.
- Luke MD (2000). Physical and health education curriculum: Cross-Canada perspectives. CAHPERD J. 66(2):4-12.
- MacDonald D, Brooker R (1997). Moving beyond the crises in secondary physical education: an Australian initiative. J. Teach. Phys. Educ. 16(2):155-175.
- Martinek TJ (1976). The effects of horizontal and vertical models of teaching on the development of specific motor skills and self-concept in elementary school children. (unpublished doctoral dissertation, Boston University).
- McIntyre DJ, Killian JE (1986). Student's interactions with pupils and cooperating teachers in early field experiences. Teacher Educator. 22(2):2-9.
- McKenzie TL, Kahan D (2004). Impact of the Surgeon General's Report: Through the eyes of physical education teacher educators. Physical Education, Physical Activity, and Public Health: Learning from the Past, Building for the Future [Monograph]. J. Teach. Phys. Educ. 23(4):300-317.
- Napper-Owen G, Marston R, Van Volkinburg P, Afeman H, Brewer J (2008). What constitutes a highly qualified physical education teacher. J. Phys. Educ. Recreation Dance. 79(8):26-30.
- National Association for Sport and Physical Education (NASPE) (2007a). What constitutes a highly qualified physical education teacher?, http://www.aahperd.org/naspe/pdf_files/ HiQualified.pdf. (February 02, 2015).
- National Association for Sport and Physical Education (NASPE) (2007b). Physical education teacher evaluation tool,http://www.aahperd.org/naspe/pdf_files/pos_papers/TeacherEval uationTool.pdf (February 02, 2015).
- Onofre M, Marques A, Moreira R, Holzweg M, Repond RM, Scheuer C (2012a). Physical education and sport in Europe: From individual

- reality to collective desirability (Part 2). Intl. J. Phys. Educ. 49(3):17-30.
- Onofre M, Marques A, Moreira AR (2012b). Physical education and sport in Europe: from individual reality to collective desirability (Part 2). Intl. J. Phys. Educ. 49(3):17-30.
- O'Sullivan M (1990). Physical education teacher education in the United States. J. Phys. Educ. Recreation Dance. 61(2):41-45.
- Prskalo I, Findak V, Neljak B (2007). Educating future preschool and primary school teachers to teach physical education-Bologna process in Croatia. Kinesiology. 39(2):171-183.
- Rivard MC, Beaudoin C (2005). Physical education in Canada. *In:*Puhse U and Gerber M (Eds.). International Comparison of Physical
 Education. Concept Problems Prospects. Aachen: Meyer &
 Meyer Verlag.
- Sanders S, McCrum D (1999). Peaks of excellence, valleys of despair: What is the future of physical education? Teaching Elementary Phys. Educ. 10(1):3-4.
- Siedentop D (1980). Physical education curriculum: An analysis of the past. J. Phys. Educ. Recreation. 51:40-41.
- Stier WF, Kleinman S, Milchrist PA (1994). The future of physical education-Survival or extinction?, http://files.eric.ed.gov/fulltext/ED383644.pdf (5 May 2014).
- Tinning R, Fitzclarence L (1992). Postmodern youth culture and the crisis in Australian secondary school physical education. Quest. 44(3):287-303.
- Willgoose CA (1984). The curriculum physical education. (2.nd Ed.). Prentice- Hall: INC. pp. 94-98.
- Yanik M, Çamliyer H (2015). The relationship between high school 9th graders'attitudes towards physical education and sports and their levels of alienation from school. Intl. J. Sports, Exercise Train. Sci. 1(1).