

Hierarchy of physical education goals as an expression of educational priorities among Polish teachers

Hierarquia de educação física objetivos como uma expressão de prioridades educativas entre professores Poloneses

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Abstract – The work of teachers has to be purposeful and well thought out in order to achieve desired results. Both theory and practice show that achieving success is combined with the adequate setting of educational goals and organizing them in a specific hierarchy. The objective of this study was the diagnosis of preferences concerning the hierarchy of physical education goals. A questionnaire developed by the European Physical Education Association was used as the research tool. Teachers perceived the goal of ‘encouraging students to lead an active, healthy lifestyle’ as the most important consideration. Its realization should result in lifelong physical activity and healthy lifestyle among students. From the results of this study it can be concluded that the following priorities of Polish teachers of physical education can be identified: health and physical fitness of pupils. Goals connected with shaping the social competences of pupils ranked lowest in importance.

Key words: Hierarchy of goals; Physical education; Physical fitness; Teaching.

Resumo – O trabalho dos professores tem de ser intencional e bem pensado, a fim de alcançar os resultados desejados. A teoria e a prática mostram que, para se alcançar o sucesso educativo, é necessária uma combinação adequada dos objetivos pedagógicos, os quais deverão ser organizados em uma hierarquia específica. Esta investigação procurou diagnosticar as preferências dos professores relativas à forma como os objetivos da Educação Física devem se organizar hierarquicamente. Foi utilizado um questionário desenvolvido pela Associação Europeia de Educação Física como ferramenta de pesquisa. Os professores indicaram que o objetivo de aprendizagem de “incentivar os alunos a levar um estilo de vida ativo e saudável” era o mais importante e que a sua realização deveria resultar da aprendizagem das atividades físicas em longo prazo. Pode-se concluir que, para os professores Poloneses, a saúde e aptidão física dos alunos são objetivos prioritários da educação física. Ficando menos valorizadas as metas ligadas ao desenvolvimento das competências sociais dos alunos.

Palavras-chave: Aptidão física; Educação física; Ensino; Objetivos pedagógicos.

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INTRODUCTION

Teachers' work, as in every form of human activity, has to be purposeful and well thought out in order to achieve assumed results. The element preceding any activity is motivation, which triggers the launch of behaviour dedicated to achieving a goal. In modern psychology, the motivation to achieve has been defined in a number of ways. The definition arrived at through the consensus of a variety of opinions is based on theses by McClelland¹, Heckhausen², Atkinson and Feather³. The most important factor, which is tied to achieving success, is maintaining the activity aimed at a selected goal over a long period of time.

Theory and practice indicate that achieving success is combined to a large extent with the setting of adequate goals; the results of research show that people without any clear long-term goals often change the direction of their actions. However, setting a long-term goal without short-term goals usually leads to idleness⁴. According to Locke and Latham⁵, people should set themselves difficult but achievable goals. In such a situation, the goal is realized with increased persistence and great effort. However, when the goal is easy to achieve or perceived as unachievable, a lack of motivation to act occurs. The choice of goals is also connected with their value and assigning them into a specific hierarchy.

Teachers with high levels of teaching efficacy maintain personal achievement goals for their teaching even when their schools place emphasis on conflicting goals⁶.

The psychological theory of setting goals^{7,8}, and the theory of motivation⁹, allow the crucial research problem in this study to be pinpointed in the form of diagnosing preferences concerning the hierarchy of physical education goals. Verification of the defined problem requires an answer to the following research questions:

Which goals of physical education have the highest declared rank according to the teachers' hierarchy?

Do gender and years of professional experience translate into a different hierarchy of physical education goals?

Does the environment of the work of teachers (lower-primary school, higher-primary school, secondary school) constitute a factor influencing the hierarchy of physical education goals?

To what extent are the physical education goals, which have been analysed, actually achieved?

METHODOLOGICAL PROCEDURES

Participants

The research on which this article is based, comprised 444 physical education teachers in south-west Poland working in lower-primary, higher-primary and secondary schools. Demographic characteristics are shown in Table 1. Teachers participating in the research graduated from studying

on a 3-year higher education course (2,700 hours of courses) and a 2-year master's degree study (1,500 hours of courses). Respondents were classified into three groups based on their time spent as professional teachers, as follows: beginner teachers (interns and contract teachers – up to 5 years of professional experience), nominated teachers (6–10 years of professional practice), and chartered teachers (over 11 years of professional practice). The uneven distribution reflects the present structure of employment in the system of education and results from a failure to enrol beginner teachers into the profession.

Table 1. Demographic data of the tested groups

| Characteristic of sample | Female | Male | Total |
|----------------------------------|------------|------------|------------|
| | n (%) | n (%) | n (%) |
| Type of school | | | |
| lower-primary | 98 (22.0) | 94 (21.2) | 192 (43.2) |
| upper-primary | 66 (14.9) | 72 (16.2) | 138 (31.1) |
| secondary | 46 (10.4) | 68 (15.3) | 114 (25.7) |
| Years of professional experience | | | |
| ≤5 | 46 (10.4) | 20 (4.5) | 66 (14.9) |
| 6–10 | 36 (8.1) | 62 (14.0) | 98 (22.1) |
| ≥11 | 128 (28.8) | 152 (34.2) | 280 (63.0) |
| Total sample | 210 (47.3) | 234 (52.7) | 444 (100) |

Measures

The diagnostic poll method, the questionnaire technique, was applied in the research. The questionnaire developed by the European Physical Education Association^{10,11}, was applied as a research tool. It comprised 13 physical education goals adopted as joint goals for European Union countries, which were presented to respondents in the following order: (1) 'To develop a feeling of personal well-being/wellness'; (2) 'To spread values among students that are connected to participation in sport: solidarity and fair play'; (3) 'To ensure students' safety during classes'; (4) 'To develop a broad repertoire of students' competence in movement'; (5) 'To show students the cross-curricular links between physical education and other school subjects'; (6) 'To promote among students the social and cultural importance of sports and physical activity'; (7) 'To develop students' ability to evaluate their own and others' performance'; (8) 'To develop group management skills and the ability to organize others'; (9) 'To appreciate the value of fitness and health'; (10) 'To develop the capacity to apply and develop skills in specific forms of physical activity'; (11) 'To foster the sense of citizenship'; (12) 'To provide opportunities for satisfactory participation in classes to all students, regardless of ability, gender or social and cultural background'; (13) 'To encourage students to follow an active and healthy lifestyle'. The respondents' task was to order these goals into a hierarchy. The second part of the questionnaire was dedicated to testing teaching results. Teachers were invited to evaluate the possibility of an efficient

realization of the analysed goals by selecting one answer from among the following: 'not achieved', 'achieved', 'mastered'¹⁰.

Procedures

Research was conducted by the authors with the participation of the trained group of colleagues in the period from September 2010 to the end of January 2011. The selection of the research group was deliberate and resulted from co-operation with the tested teachers concerning the education of students at the Faculty of Physical Education and Physiotherapy of the Opole University of Technology who had their pedagogical internships in selected schools. Participation in the research was voluntary and teachers' consent to participate was given. The study was conducted compliant to the requirements of the Bioethical Commission in Opole (No. 151).

Percentage values, arithmetic mean and standard deviations were calculated for the analysis of the data. Statistically significant differences in age, gender and years of professional experience were examined using STATISTICA 8 software, using the following analyses: Kruskal–Wallis test and Mann–Whitney *U* test.

RESULTS

The teachers' classification of the goals shows a group of dominating goals (1, 4, 10, 2, 5) of an educational nature, a group of goals concerning sports (3, 7, 11), with a medium value assigned in the hierarchy, and a group of less frequently selected goals (12, 9, 6, 13, 8) concerning mainly social skills (see Table 2). The most important among the group of dominating goals in the context of physical education were issues connected to health, which is corroborated by selecting goal 1 as the most important in the hierarchy; this concerns preparing students for an active and healthy lifestyle. Goal 10 was in third place in the hierarchy; this is also connected to health issues and emphasizes the need to maintain fitness and look after one's health. Teachers perceived health aspects of physical education and lifelong activity as the most important goals in the realization of school physical education. In the hierarchy of goals, the goals connected to the organization of the didactic process and concerning safety during classes and developing a feeling of personal well-being/wellness were also ranked highly. They emphasize a broad diversity of physical exercises, educational functions and numerous requirements for the proper organization of a lesson (goals 2 and 4). Creating grounds for lifelong physical exercise recreation can be assured by comprehensive skills, and gaining them as a result of physical education has also been highlighted by teachers; respondents placed the goal comprising this content (5) in fifth place.

The second group comprised the classification of goals that disseminate values linked to sports (such as solidarity and the fair-play rule). Respondents who assigned a special rank to those goals perceived the promotion of various exercise activities through sport at school as important. In the

third group, the least frequently selected goals, goal 12, which concerns fostering the sense of citizenship, was the least frequently selected; supposedly, teachers do not see a close relationship in the content of this goal with physical education. Similarly, the skill of managing a group and indicating a relationship between physical education and other school subjects was perceived as less important by teachers. It is surprising that goal 13, which touched on a very important issue concerning the creation of equal opportunities for all students regardless of ability, gender or social and cultural background, was also classified at a very low 10th place in the hierarchy (see Table 2).

Table 2. Teachers' assessment of attainability of physical education goals, N = 444

| Hierarchy of goals | Attainability of goals | | | Mean range* |
|---|------------------------|-------------------|-------------------|-------------|
| | Not achieved n (%) | Achieved n (%) | Mastered n (%) | |
| 1. To develop a feeling of personal well-being/wellness | 14 (3.2) | 356 (80.2) | 74 (16.7) | 3.74 |
| 4. To develop a broad repertoire of students' competence in movement | 8 (1.8) | 314 (70.7) | 122 (27.5) | 4.89 |
| 10. To develop the capacity to apply and develop skills in specific forms of physical activity | 12 (2.7) | 332 (74.8) | 100 (22.5) | 5.77 |
| 2. To spread values among students that are connected to participation in sport: solidarity and fair play | 6 (1.4) | 334 (75.2) | 104 (23.4) | 5.93 |
| 5. To show students the cross-curricular links between physical education and other school subjects | 12 (2.7) | 358 (80.6) | 74 (16.7) | 5.93 |
| 3. To ensure students' safety during classes | 10 (2.3) | 344 (77.5) | 90 (20.2) | 6.79 |
| 7. To develop students' ability to evaluate their own and others' performance | 56 (12.6) | 350 (78.8) | 38 (8.6) | 7.05 |
| 11. To foster the sense of citizenship | 30 (6.8) | 350 (78.8) | 64 (14.4) | 7.72 |
| 8. To develop group management skills and the ability to organize others | 20 (4.5) | 310 (69.8) | 114 (25.7) | 7.85 |
| 13. To encourage students to follow an active and healthy lifestyle | 36 (8.1) | 360 (81.1) | 48 (10.8) | 8.11 |
| 6. To promote among students the social and cultural importance of sports and physical activity | 34 (7.7) | 294 (66.2) | 116 (26.1) | 8.89 |
| 9. To appreciate the value of fitness and health | 14 (3.2) | 326 (73.4) | 104 (23.4) | 8.97 |
| 12. To provide opportunities for satisfactory participation in classes to all students, regardless of ability, gender or social and cultural background | 44 (9.9) | 352 (79.3) | 48 (10.8) | 9.34 |

* the arithmetic mean of the rank of the goals

Five goals that were perceived by respondents as being the most important were subject to detailed analysis: the first variable was the type of school (the lower the arithmetic mean, the higher the rank of the goal). The most important goal in the hierarchy 1 - *To encourage students to active a healthy lifestyle* was assigned similar importance by teachers of all levels of education (lower-primary school, upper-primary school and secondary school). The analysis of multiple comparisons with the Kruskal–Wallis test has shown a value close to the significance level ($H = 6.19, p = 0.045$); however, detailed comparison of groups did not show statistically significant differences in the responses of teachers from different types of schools.

Consequently, we have to assume that goal 1 is commonly perceived as the most important by teachers from lower-primary schools, upper-primary schools and secondary schools.

The next two places in the hierarchy were occupied by goals (3) – concerning ensuring students' safety during classes and (9) – appreciation of the value of fitness and health; however, no statistically significant differences were evident in the performed hierarchy depending on the type of school. The levels of education caused significant variations in teachers' answers concerning goals 2 and 5. Goal 1 ($H = 6.73, p = 0.035$) – *to develop a feeling of personal well-being/wellness* turned out to be the most important for teachers in secondary schools. Teachers who worked with the oldest adolescents at schools perceived fostering a good atmosphere during classes as very important, which may have a significant impact on students' attitude to the subject and on their active participation in classes. From among the three types of schools, students in secondary schools show the highest expectations of the subject and the teacher, at the same time, in this type of school, a large number of absentees due to sickness were observed in physical education classes¹². Those factors may have an impact on the high rank attributed to this goal in the performed hierarchy. They emphasize the necessity to deliver classes in such a manner that will trigger positive emotions in students and increase self-motivation to actively participate in classes. Statistically significant differences appeared in the evaluation of this goal by secondary and primary schools ($p = 0.031$), where teachers gave the lowest ranking to this goal.

Goal 4 – *to develop a broad repertoire of movement competence*: the result of the analysis indicates that teachers of upper-primary schools have a specific need to develop the physical skills of students ($H = 20.39, p = 0.0000$). In upper-primary schools, this goal received the highest rank, showing a willingness to provide upper-primary school students with the largest possible resources of physical skills. Students' comprehensive preparation in this scope will enable them to undertake various forms of physical activity in the future. In assigning specific ranks to this goal, respondents' responses have shown statistically significant differences among teachers of lower-primary and upper-primary schools ($p < 0.001$) and upper-primary and secondary schools ($p < 0.001$), where this goal received the lowest ranking.

The analysis of results with the application of the Kruskal–Wallis test shows that years of professional experience did not significantly differentiate the hierarchy of the most important goals of the subject.

In the next part of the research, an analysis was undertaken based on gender. Again the findings showed no statistically significant differences in the performed hierarchization of the 13 goals. Both men and women participating in the research assigned the same rank to the analysed goals.

Hierarchization of physical education goals was the first stage of research. Based on respondents' answers, the ranking of the particular content of goals was established, revealing the picture of educational

priorities. During further research, teachers were asked to provide their opinion concerning the possibility of the successful realization of the analysed goals. The answers provided were placed within a three-level scale: 'not achieved', 'achieved', 'mastered'. Based on the respondents' replies, we suggest that it is possible to achieve all the goals presented in the research to a 'mastered' degree. Detailed analysis indicated that the lower level of attainability concerns the goal connected with promoting social and cultural significance of sports and physical activity among students. Fifty-six teachers (12.6%) recognized this goal as not achievable. The highest level of attainability concerned the goal that was connected to the need to assure the safety of students performing exercises during classes, with 90 teachers (20.2%) perceiving this goal as mastered (see Table 2).

DISCUSSION

The results of the research on the hierarchy of physical education goals, which are presented in this work, provide valuable information concerning present priorities in the scope of physical education. From among 13 goals subject to analysis, teachers perceived the goal 'to encourage students to follow an active and healthy lifestyle' as the most important. Its realization should result in students' lifelong physical activity and healthy lifestyle. This goal has also been indicated as the most important in the European research, where it was accorded first place in the hierarchy¹⁰.

Researchers in European countries have assumed that the profile of students' competences may be evaluated by the research on the subject's goal hierarchy, which aims to show those goals whose realization to the greatest degree will assure students that gaining the required competences will enable them to have an active participation in physical culture.

In Poland, differences among the assumed and actual physical education goals were described by Bukowiec et al.¹³ who, based on research, drew the conclusion that the school system of physical education is inefficient in preparing students for participation in physical culture.

Bronikowski¹⁴ reported similar results in his research among physical education teachers in the realization of operational goals according to the hierarchization by respondents. He observed that the most important goals were those concerning shaping attitudes, and next came the goals connected to movement skills. In the opinion of five Polish theoreticians of physical education participating in the research by Frołowicz¹⁵, the most important goal of the subject turned out to be developing recreation competences, and next, health competences. The author described recreation competences as 'forming an individual who understands the meaning and also knows the value of recreation after work that rest benefits the body'¹⁵. Similar answers were provided by teachers participating in this research: 75% of them perceived recreation competences as the most important, with the second most important issue being medical competences (prophylaxis) and next, health competences.

Teachers in south-west Poland gave the lowest ranking to social competences. Fostering the sense of citizenship, developing group management skills and the ability to organize others, as well as actions connected with showing the links between physical education and other school subjects were perceived as being the least important. In the evaluation of those goals, the same tendency was noticed in the European research, in which teachers from 20 participating countries provided an identical hierarchy to those goals, which were placed in the last three locations of the ranking. A significant difference between the European research and the one presented in this current work concerns the goal 'to provide opportunities of satisfactory participation in classes to all students, regardless of ability, gender or social and cultural background.' Polish teachers did not pay any particular attention to the content of this goal and placed it in tenth position in the hierarchy. In the European research, this goal was placed second, with its high rank possibly being connected to the fact that the population structure in the European countries is different, with a greater ethnic and cultural diversification than in Poland.

CONCLUSIONS

The priority of Polish physical education teachers is to encourage students to lead an active and healthy lifestyle.

The lowest ranked goals were those connected with shaping the social competences of pupils.

Both men and women participating in the research assigned the same rank to the analysed goals.

Professional experience did not significantly differentiate the hierarchy of the subject's most important goals.

The lowest level of attainability concerns the goal connected with promoting the social and cultural significance of sports and physical activity among students.

The highest level of attainability was connected to the need to assure the safety of students performing exercises during classes.

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