

# Self-check and reciprocal teaching styles in physical education: A qualitative investigation of elementary school students' experiences

Argiris Theodosiou<sup>1</sup>, Chrysa Gerani<sup>1</sup>, Vassilis Barkoukis<sup>2</sup>, Apostolia Gioupsani<sup>1</sup>,  
Vassilis Papacharisis<sup>3</sup>, Amalia Drakou<sup>4</sup>, Haralambos Tsorbatzoudis<sup>2</sup>

<sup>1</sup>1<sup>st</sup> Experimental Primary School integrated in the Aristotle University of Thessaloniki

<sup>2</sup>Department of Physical Education and Sport Science; Aristotle University of Thessaloniki

<sup>3</sup>Aristotle University of Thessaloniki Sports Centre

<sup>4</sup>1<sup>st</sup> Experimental High School intergraded in the Aristotle University of Thessaloniki

## ABSTRACT

The aim of the present study was to examine by using a qualitative design, the effects of the implementation of the self-check and reciprocal teaching styles on students' enjoyment, effort and interest during physical education classes. Fifty two 5<sup>th</sup> and 6<sup>th</sup> grade primary school students participated in the study. Students were taught by two physical education teachers. The self-check and the reciprocal teaching styles were implemented during the instruction of basic basketball skills in three physical education lessons. Semi-structured interviews were used for ascertainment of students' opinions. From the results of the thematic analysis it was found that the intervention positively affected learners' enjoyment, interest and effort during lesson on the condition that implementation of new teaching practices is systematic. The findings of the present study provide useful information on elementary school students' experiences during physical education lesson with the use of self-check and reciprocal teaching styles.

**Key words:** teaching-style\*, self-check\*, reciprocal\*, physical education, qualitative

## 1. INTRODUCTION

It is well established that the implementation of life-long physical activity plays important role on people's quality of life, health and well-being, either directly-by slowing the spread of chronic diseases, or indirectly-by improving social and psychological development. Usually people begin to participate in a variety of movement activities and meet with fundamental motor skills early on in their childhood during physical education classes at their school. Growing up and by improving the necessary sport-related skills and abilities through practice, students become able to participate in particular sports and physical activities, experiencing feelings of success and achievement. Through the whole of this procedure of students' improvement, physical education teachers are those which have the responsibility to create the appropriate learning environment, to enforce students' intrinsic motivation and to decide which teaching method is more suitable for improving their skills. Therefore, a large body of research already exists regarding psychology of pupils which involve in physical activities and the methods of teaching sport motor-skills and physical education in general.

On the subject of teaching methods Mosston<sup>1</sup> was the first who established the term 'teaching style', by organizing all the teaching methods depending on whether the decisions in a teaching/learning event are made by: the teacher or the student. Later on, together with Ashworth<sup>2,3,4</sup> he introduced 'the spectrum of teaching styles' on which eleven teaching methods were classified starting with the 'command style' (an extreme 'teacher-centred' teaching style where all the decisions are made by the teacher) and ending with the self-teaching style (an extreme 'student-centred' teaching style where all the decisions are made by the student). On the assumption that people learn in different ways, are raised in different environments and have different abilities, interests, skills and characters, it is obvious that educators have to use a variety of teaching approaches to satisfy their pupils' different needs<sup>5</sup>. Thus, Mosston and Ashworth<sup>3</sup> suggest that no teaching style is superior to the others but instead they argue that different teaching styles are appropriate for different outcomes.

Several studies used the spectrum in order to evaluate different teaching styles and their impact on motor skills acquisition<sup>6,7,8,9,10,11</sup> while other studies explored changes on learner's feelings, motivation and self-regulation of learning<sup>12,13,14</sup>. In most of the latter studies it was correctly hypothesized that the implementation of teaching styles which

give pupils the opportunity to make more decisions during learning would have positive effects on students' psychology and cognition. For example, it has been found that the 'inclusion' teaching style, a style which allows students to have more choices, positive affected their intrinsic motivation<sup>12</sup>, while the 'reciprocal' and 'guided-discovery' teaching styles resulted more adaptive behaviours such as enjoyment, less boredom, and more focus on learning and improvement<sup>13</sup>. Moreover, it has been also found that the use of 'self-check' teaching style, in comparison to the 'practice' style, increased elementary school students' enjoyment, effort, self-regulation of learning and also had positive influences on their intrinsic motivation and perceptions about the motivational climate of the class<sup>14</sup>. Even in Greek traditional dances lessons where the 'command' style is mainly being used, the implementation of the 'self-check' and 'reciprocal' teaching styles created a positive atmosphere, increasing intrinsic motivation, enjoyment and autonomy of the learners<sup>15</sup>.

In almost all of the aforementioned studies quantitative methods were used in data selection<sup>12,14,15</sup>. In order to fully understand possible underlying reasons, opinions, and motivators, in other words to dive deeper to a phenomenon, the use of both methods appears to be necessary. As a result, the aim of the present research was to explore the effects of 'reciprocal' and 'self-check' teaching styles on students' enjoyment and autonomy during physical education classes using a qualitative method of data selection.

## 2. METHOD

### 2.1. Participants

Fifty two primary school pupils (*boys = 24, girls = 28*) participated in the study. The students were in the 5<sup>th</sup> and 6<sup>th</sup> grade and the classes were taught by two physical education teachers who had complete knowledge and adequate experience on the spectrums' styles. The study was part of the "Pupil Health & Well-Being - an Education Priority for Europe's Schools" KA 2, Erasmus+ project.

### 2.2. Experimental Procedure

The students were divided in two groups ( $n_1 = 23, n_2 = 29$ ). The first group was taught by one of the teachers with the 'self-check' teaching style whereas, the other group was taught by the other teacher with the 'reciprocal' teaching style. The intervention took place during fall and lasted 3 teaching hours, each of them lasting 45 minutes. Three lesson plans were designed in the same way for all classes (*a. warm-up games and activities, b. main-part activities and c. cool-down games and activities*). Warm-up and cool-down games and activities were the same for both self-check and reciprocal groups in every lesson. During the main part of activities of each lesson, one of three basketball skills (*a. ball dribbling, b. ball shooting, c. ball passing*) were introduced to pupils of both groups in the same order for each class.

Three criterion sheets were prepared, one for each skill. The criterion sheets included a brief description of the skill's use, four key-components of it, four pictures illustrating every key-component and a self-check form for the students to mark their success. Pupils executed five sets of ten trials (total: 50 trials). After each set the pupils of the self-check group indicated in the criterion sheet for every key-component whether they performed the skill correctly () or if they needed further improvement () giving themselves in this way personal feedback. In contrast, the pupils of the reciprocal group after each set were taken feedback by a classmate who indicated, after watching them, their success in a same criterion sheet.

### 2.3. Data Collection

The physical education teachers discussed in the form of semi-structured interview with all students their experiences from the implementation of the teaching styles. The interviews lasted on average 10 minutes and were conducted during the school breaks. The interviews were conducted in small groups of 4-5 students each and the teacher was keeping notes of the students' beliefs. According to Sparkes and Smith<sup>16</sup>, open-ended questions and empathetic listening was used to extract students' opinions related to the implementation of the teaching styles. Students were asked questions such as "What do you think about the new teaching styles we employed in the past lessons?", "Was it easy for you to work this way?" or "Was it enjoyable for you to work this way?"

## 3. RESULTS

The notes kept by the physical education teachers were analysed using NVIVO 11 and analysed with the use of thematic analysis. The results of the analysis revealed two main themes and 4 subthemes. The main themes involved Positive experiences from involvement and Barriers in style implementation. With respect to positive experiences, participants consistently reported that they experienced many positive experiences while working with this teaching approach. Two subthemes emerged in this category; interest and enjoy. The majority of the participants reported that the

new teaching styles were interesting. They hadn't done something similar in the past and they found it interesting working on already known skills with a different approach. Many students reported that they were surprised by the fact that there were many different approaches to teach the same motor skill. With respect to enjoyment, students reported that they found this teaching approach enjoyable. Many students suggested that the use of alternative teaching approaches makes the lesson more enjoyable. Importantly, they noted that these teaching approaches made them more willing to apply effort and they felt that the outcomes of the teaching was more apparent to them.

Despite the fact that students reported positive experiences from lesson participation, they identified several barriers in using these teaching styles. The first subtheme identified was time. Students reported that organization of the lesson using these styles was time consuming and this resulted in lowering their academic learning time. They acknowledged, however, that this was evident in the first lesson and as the lessons progressed the organization of the class was more fluent. Still, the time of actual task execution was less than typical lessons but the interest in working this way countered the possible negative effects. The second subtheme emerged involved confusion in implementing the teaching styles. Similarly to the previous subtheme, students reported that at the beginning it was difficult to them to follow the teacher's instructions and effectively work in this type of lesson structure. As this lesson structure was repeated, it became easier for them to adjust and work properly. Many students raised suggested that they were initially feeling that these styles were not effective in teaching sport skills. Later on, however, the majority of the students admitted that they found this lesson structure engaging and in the end they felt that it helped them improve and master the taught skills. In this helped a lot the fact that they were working on their own pace, and obtaining regularly feedback by their teammates.

#### 4. DISCUSSION

The present study was designed to investigate elementary school children experiences from participating in physical education classes implementing the self-check and reciprocal styles. A qualitative design was employed using focus groups. The results of the thematic analysis revealed that students reported positive experiences from the use if these teaching styles, but also identified some barriers in their implementation. Importantly, the students reported that the use of the self-check and reciprocal styles made the lesson interesting and enjoyable. These findings imply that using alternative lesson structures helps students find new meaning in the learning process and experience positive feelings.

With respect to the barriers identified, it is important to note that the majority of students reported that progression with the use of these styles countered the negative beliefs elicited at the beginning of the teaching process. These findings imply that, although new teaching approaches may elicit positive experiences, at the beginning they may evolve discomfort to the students. Both students and teachers familiarize with a teaching approach and any changes may, initially at least, disorganise the teaching process. However, the present study evidenced that this discomfort decreases with the continuous implementation of the innovative teaching approach and the familiarization with the teaching process. Hence, the present study provides evidence that any innovation in teaching practices should be implemented continuously and coherently, in order to be effective.

#### REFERENCES

- [1] Mosston, M., [Teaching physical education], OH: Merrill, Columbus (1966).
- [2] Mosston, M. and Ashworth, S., [Teaching physical education], OH: Charles E. Merrill, Columbus (1994).
- [3] Mosston, M. and Ashworth, S., [Teaching physical education, 4<sup>th</sup> ed.], Mcmillan, New York (1986).
- [4] Mosston, M. and Ashworth, S. [Teaching physical education 5th ed.], Benjamin Cummings, Boston (2002).
- [5] Garn, A. and Byra, M., "Psychomotor, cognitive, and social development Spectrum style," *Teaching Elementary Physical Education* 13, 8-13 (2002).
- [6] Abd Al-Salam, A., "The effects of three styles of teaching on the performance level and practice trials of long serves and short serves in badminton," *Dirasat: Educational Sciences* 31(1), 88-104 (2004).
- [7] AlMulla-Abdullah, F., "The effectiveness of the reciprocal teaching style on the level of shooting skills acquisition in team handball," *Journal of Educational Psychological Science* 3(4), 10-37 (2003).
- [8] Beckett, K., "The effects of two teaching styles on college students' achievement of selected physical education outcomes," *Journal of Teaching in Physical Education* 10(2), 153-169 (1990).
- [9] Boyce, B. A., "The effects of three styles of teaching on university student's motor performance," *Journal of Teaching in Physical Education*, 11(4), 389-401 (1992).

- [10]Goldberger, M. and Gerney, P., “The effects of direct teaching styles on motor skill acquisition of fifth grade children,” *Research Quarterly for Exercise and Sport* 57(3), 215-219 (1986).
- [11]Goldberger, M., Gerney, P. and Chamberlain J., “The effects of three styles of teaching on the psychomotor performance of fifth grade children,” *Research Quarterly for Exercise and Sport* 53(2), 116-124 (1982).
- [12]Goudas, M., Biddle, S., Fox, K. and Underwood, M., “It ain’t what you do, it’s the way that you do it! Teaching style affects children’s motivation in track and field,” *The Sport Psychologist* 18, 462-471 (1995).
- [13]Morgan, K., Sproule, J. and Kingston, K., “Effects of different teaching styles on the teacher behaviours that influence motivational climate in physical education,” *European Physical Education Review*, 11(3), 257-286 (2005).
- [14]Papaioannou, A., Theodosiou, A., Pashali, M. and Digelidis, N., “Advancing task involvement, intrinsic motivation and metacognitive regulation in physical education classes: The self-check style of teaching makes a difference,” *Advances in Physical Education* 2(3), 110-118 (2012).
- [15]Pitsi, A., Digelidis, N. and Papaioannou, A., “The effects of reciprocal and self-check teaching styles in students intrinsic-extrinsic motivation, enjoyment and autonomy in teaching traditional Greek dances,” *Journal of Physical Education and Sport* 15(2), 351-361 (2015).
- [16] Sparkes, Andrew C., and Brett Smith. [Qualitative research methods in sport, exercise and health: From process to product]. Routledge (2013).