

- Stöckel, T., Hartmann, C. & Weigelt, M. (2007). Reihenfolgeeffekte für das Erlernen komplexer sportmotorischer Fertigkeiten auf beiden Körperseiten. *Zeitschrift für Sportpsychologie*, 14 (3) 130-135.
- Tietjens, M. & Potthoff, M. U. (2006). Monoedukation und Koedukation im Sportunterricht. *Sportwissenschaft*, 36 (4), 397-416.
- Völker, K. (2007). Sportwissenschaft und Schulsport: Trends und Orientierungen (4) *Sportmedizin. sportunterricht*, 56 (3), 67-71.
- Willimczik, K., Voelcker-Rehage, C. & Wiertz, O. (2006). Sportmotorische Entwicklung über die Lebensspanne Empirische Befunde zu einem theoretischen Konzept. *Zeitschrift für Sportpsychologie*, 13 (1), 10-22.
- Wydra, G. (2006). Die Bedeutung von Anstrengung für den Sport und den Sportunterricht. *sportunterricht*, 55 (6), 307-311.

Research Articles

The Effects of Teaching Styles of Gymnastics and Basketball Exercises on Children's Moral Development Within the Framework Physical Education

M. Proios & M. Proios (Thessaloniki, Greece)

- 1 Introduction
- 2 Method
 - 2.1 Sample and Design
 - 2.2 Procedures
 - 2.3 Measures
- 3 Results
- 4 Discussion

Abstract

Within an intervening program concerning the effect of styles teaching on the learning of gymnastics and basketball exercises, the effectiveness of the practical, the reciprocal and the mixed (reciprocal-practical) teaching style on the students' moral development was examined. Additionally, the effectiveness of these three styles was examined separately. High school students of the first grade ($n = 70$) participated in the program, which lasted for 8 weeks. Pre and post the intervention the students filled in the Defining Issues Test (Rest, 1979) questionnaire concerning the assessment of the students' moral judgment. The results of the analyses have showed no statistically significant differences in the moral judgment scores between pre and post moral judgment in all three styles together, neither separately. However, from the differences that have been observed in the means of the moral judgment scores, we could reservedly argue that the usage of different forms of styles teaching contributes to the students' moral development.

1 Introduction

In the framework of the "constructive" model, the structural-developmental theorists (e.g., Haan, 1991; Haan, Aerts, & Cooper, 1985; Kohlberg, 1976), determine moral development as a change in the forms of reasoning, that are connected to an individual's cognitive structure. The development of these cognitive structures depends on the effective intervention of the

environment. Thus, the learning procedures that are connected to the structural-developmental theory need an environment that is going to facilitate the productive interaction between the self and the others.

A rather good illustration of interaction and taking responsibility is the spectrum of styles teaching developed by Mosston and Anshworth (1990), which presents ways for assigning more responsibility on students. According to the spectrum of teaching styles, the core issue of teaching is decision making. Baron (1994) maintained that decision making has to do with the way an individual is thinking whenever he/ she has chosen what to do. The decisions can concern us ourselves and our actions or the others.

According to Mosston and Anshworth (1994), since the decision making affects the shaping of the individual's character, as a result each one of the styles teaching affects the student under development in a unique manner. This happens because, in the framework of the spectrum teaching styles, the students are allowed to make most decisions, something that leads them to the undertaking of greater responsibilities (Chelladurai & Trail, 2001).

The teaching styles of this spectrum are divided into two groups (Mosston & Anshworth, 1994). For both of these authors, the two groups are different as far as the goals, the trainer's behaviour and the students' prospective behaviour is concerned. In the styles of the (A-E) group, the children reproduce what is already known, while in the styles of the (F-K) group they discover and produce something that is unknown. The (A-E) styles, i.e. command, practical, reciprocal, self-check, and inclusion, are based on the trainers and at the same time they lead students to the discovery of the problem as well as to the way of solving it (Mosston & Anshworth, 1986).

In the present study, the styles B and C of the first group were used, as well as a mixed B&C style. The practical style of teaching has as a goal to transfer decision making from the trainer to the student. This offers the opportunity to the student to make a whole number of decisions within the limits of certain parameters that have been set by the trainer. The reciprocal style of teaching has as a goal to develop social relationships among schoolmates (interaction among age-mates) and to create the conditions for immediate feedback. In studies that have made use of the cooperative learning exercises, it was found that the friendships that had been developed among the children were strong enough; moreover similar results were established in the case of children with mental disabilities (Biehler & Snowman, 1997).

Since social interaction (interaction among age-mates, team work and co-operation), is considered to contribute significantly to the children's moral development (Telama, 1999), it is useful for the trainers to know ways to promote the students' socialization. So, the aims of this study were to examine (1) whether the B, C and B&C (mixed) teaching styles contribute effectively to the children's moral development, and (2) which of the above mentioned teaching styles is the most effective concerning the children's moral development.

Taking under consideration the learning intentions of each teaching style (decision making by the students, children's socialization, cognitive development), in this study, it was initially assumed that the children's moral development would be improved by using these styles teaching. Secondly, it was assumed that B and C styles would have similar contribution to the improvement of moral development, since they both include elements that contribute to this moral development, despite the fact that, as it has been aforementioned, each teaching style affects the student under development in a unique way. Thirdly, taking under consideration Goldberger and Gerney's (1986) statement, that more than one teaching style should be used for the teaching of a certain movement, it was assumed that the usage of the mixed style (B&C) would contribute more intensely to the children's moral development.

In the present study, there have been used exercises from gymnastics and basketball, in order this learning to be achieved. This preference is due to the fact that the teaching of both of them is included in the analytic programs of the primary and the secondary education in

Greece, as well. Moreover, they both are sports in which the selected teaching styles can be easily used.

2 Method

2.1 Sample and Design

In the present study, 70 students (boys and girls) of the first grade of Nea Mihaniona – Thessaloniki high school have participated. These individuals were randomly separated into three experimental groups. Each group followed a different teaching style for the learning of four basic skills of two different sports (gymnastics and basketball).

2.2 Procedures

Firstly, two preliminary sessions were held in each experimental group in order the teaching style to be apprehended. The students were divided into groups; they were assigned roles and given clarifications concerning the exercises and the way of practicing them. The first group followed the practical teaching style. The students were practicing the exercises and the physical education instructor provided the feedback. The second group followed the reciprocal teaching style. The students were practicing in cooperation (divided into pairs). One student was executing the exercise while the other was observing and providing feedback. After three attempts, the students changed roles. At the same time, the PE instructor intervened into the learning procedure whenever he/ she thought it was necessary. Finally, the third group followed a combination of the above mentioned teaching styles (the mixed one). The student changed teaching style every week; the first style used was the reciprocal while the practical one was the second teaching style. This very alternating sequence of the two teaching styles was chosen in order to assert that, at the primary learning stage of the exercises, the usage of the reciprocal style is considered purposeful since immediate feedback is necessary, while the practical style in the case of skills that have already been acquired, intensifying this way the students' practice (Dougherty & Bonanno, 1987; Tan & Tan, 1997). Then, the three experimental groups followed the same skill learning order under the directions of the researcher himself. The skills teaching lasted 8 weeks.

2.3 Measures

All subjects were asked to complete the Defining Issues Test (DIT; Rest, 1979), which consists of 6 scenarios describing ethical dilemmas. In the present study, the Greek version by Margoulis (1989) was used. Specifically, the short version of the DIT, consisting of three scenarios, was used. (Heinz, Prisoner, Newspaper). Every scenario includes 12 issues that the subject is asked to evaluate on a 5-point scale, according to the importance attributed to the dilemma, with 1 = no importance and 5 = great importance. Then, the subjects are presented with a set of 12 items and rank the four most important ones. The majority of these items is set by Kohlberg (1969) and corresponds to the stages of moral judgment development. Out of this ranking, a P score is derived. According to Rest (1986, p. 6.2), "The P score (sum of weighted ranks given to stage 5 and 6 items) has been the most used index of the DIT. This score is interpreted as the relative importance a subject gives to principled moral considerations in making a decision about moral dilemmas". Moreover, the P items represent a mix of post-conventional judgments: some P items seem to reflect utilitarian principles (e.g., "Would stealing in such a case bring about total moral good for the whole society or not?"); some items are libertarian, rights-oriented (e.g., "Whether the law in this case is getting in the way of the most basic claim of any member of society"); and some P items are inspired by a Rawlsian view (e.g., "What values are going to be the basis for governing the way individuals act towards each other"). What all these P items have in common is that they attempt to justify an act by appealing to a sharable social ideal (Rest, et al., 1999, p. 55).

Additionally, there are two checks of the reliability of each subject's questionnaire. One check is the M score. According to Rest (1986), "M items were written to sound lofty and pretentious but not to mean anything. These items do not present any stage of thinking but rather represent tendency to endorse statements for their pretentiousness rather than their meaning. The second check on subject reliability is the consistency check. This involves a comparison of a subject's rating with a subject's ranking" (p. 3.4, 3.5). In the present study both checks were applied.

3 Results

The aim of the present study was to check whether there is a difference in index "P" of moral development pre and post the intervention for the learning of gymnastics and basketball exercises by means of three styles teaching. Separate paired t-test were used in order to determine if there were any differences in P scores pre and post the intervention, as well as the effectiveness of each style.

Descriptive statistic analysis has shown an improvement in the scores of moral development during the eight weeks that the intervention lasted. However, the students' scores means of all three groups between the initial and the final estimation revealed no statistically significant difference (Table 1).

Table 1: Results of paired t-test between of P scores pre and post the intervention

Variables	N	M	Sd	t value	p
Pre – P scores	70	12.31	9.58	-1.23	.225
Post – P scores	70	14.68	10.40		

Descriptive statistic analysis has also shown insignificantly small differences in the P score means between the initial and the final estimation in both practical and reciprocal styles, while in the mixed teaching style the differences were more evident. However, once more, all these differences in the means between the initial and the final estimation in all three styles showed no statistically significant difference (Table 2).

Table 2: Results of paired t-test (with split-file) among the P scores of the intervention for each style separately

Variables		N	M (P scores)	Sd (P scores)	t value	p
Practical style	Pre	22	12.01	11.57	-.404	.690
	Post	22	13.78	10.29		
Reciprocal style	Pre	24	12.05	7.91	-.378	.709
	Post	24	13.16	10.47		
Mixed style	Pre	24	12.75	9.51	-1.364	.186
	Post	24	17.05	10.45		

Then, a univariate analysis was used to examine the significance of the differences among the three styles at the final estimation. The results of the analysis has shown no statistically significant differences ($F(2,67) = 1.20, p = .306$) among the three styles teaching. Effect sizes (*ES*) were then conducted to examine the meaningfulness of the statistical finding. The statistical test for the estimation of power indicated a small difference .03 between sample sizes of the three groups. Consistent with the standards advocated by Cohen (1988) for the social and behavioral sciences an, effect size (*ES*) of 0.2 was considered small; 0.5 a moderate *ES*; and 0.8 and above a large *ES*.

4 Discussion

In the present study, it was initially assumed that the Mosston and Ashworth's usage of the styles teaching spectrum, that promote socialization as well as cognitive development (in cooperation), would contribute to the improvement of the students' moral development. The usage of cooperation strategies for the learning of the exercises in the framework of moral development has been maintained by a number of researchers (Miller, Bredemeier, & Shields, 1997; Telama, 1999; Weinberg & Gould, 2003). However, the results of this study have not confirmed the above mentioned statements. They have shown that, although the styles of the spectrum that have been used positively contributed to the improvement of moral development, that improvement was not significant.

Piaget (e.g., 1970) maintained that cognitive development is the result of the active interpretation of the individuals' experiences. The intervention program of this study was rather complex, especially concerning the testing of the effectiveness of these styles in the learning of gymnastics and basketball exercises and consequently in the development of the character. Thus, from the conclusion of this study it is well apprehended that when a physical education program is rather complex, that is there are many goals, then this program should probably have greater duration, in order significant results to derive.

The second assumption in the present study was that the effectiveness of the two styles teaching – practical and reciprocal – on the students' moral development is greatly diversified. The results of this study have confirmed that assumption. Both of these styles – practical and reciprocal – develop certain characteristics, through decision making, that contribute to moral development. More specifically, decision making assists the development of cognitive and social procedures (Chelladurai & Doherty, 1998). A research has shown that participation in decision making procedures contributes effectively to the development of moral thinking (Proios & Doganis, 2003).

The reciprocal teaching style promotes the cooperation spirit. Cooperation assists the children's cognitive development, since, by playing the role of the model among themselves, they are obliged to improve the way they are thinking more, than in the case they were thinking for themselves alone (Vygotsky, 1986). Moreover, cooperation affects social relations, i.e. it contributes to the children's socialization. Research has shown that the students who used the cooperative learning method were more possible to use cooperative behaviors more than the others who did not (Slavin, 1995).

A third assumption of the present study was that the combination of the two teaching styles (practical and reciprocal) is to be more effective on the student's moral development. The results of this study do not confirm this assumption, although a significant improvement was noticed – greater than the one of these styles separately – on P scores of moral development. However, this better effectiveness, which was noticed in the case of the mixed style against the personal styles teaching, reinforces the statement that when teaching includes the development of physical, cognitive and social elements then the usage of multiple styles teaching is necessary (Garn & Byra, 2002).

Finally, from the results of the present study it is assumed that the appropriate teaching style could positively contribute to the development of the children's character. Moreover, when the subject of learning includes many issues, then the usage of multiple teaching styles is even more effective. In future researches of similar kind, it is suggested that the duration of the intervention be longer, in order to examine whether the non-significant effect of the above mentioned teaching styles is due to the time of the program implementation. Additionally, it is suggested that the issue of which of the two groups of the teaching style spectrum is more effective, concerning the students' moral development, should be examined in further researches.

References

- Baron, J. (1994). *Thinking and deciding* (2nd ed.). Cambridge, U.K.: Cambridge University Press.
- Biehler, R., & Snowman, J. (1997) *Psychology Applied to Teaching*, Houghton Mifflin Company, Boston.
- Garn, A., & Byra, M. (2002). Psychomotor, cognitive, and social development spectrum style. *Teaching Elementary Physical Education*, 13(2), 8-15.
- Chelladurai, P., & Doherty, A. J. (2001). Styles of decision making in coaching. In J. M. Williams (Ed.), *Applied sport psychology* (3rd ed.) (pp. 115-126). Mountain View: Mayfield Publishing Company.
- Chelladurai, P., & Trail, G. (2001). Styles of decision making in coaching. In J. M. Williams (Ed.), *Applied sport psychology* (4th ed.) (pp. 107-119). Mountain View: Mayfield Publishing Company.
- Cohen, J. (1988). A power primer. *Psychological Bulletin*, 112, 155-159.
- Dougherty, N. J. & Bonanno, D. (1987). *Contemporary approaches to the teaching of physical education*. Scottsdale, Arizona: Gorsuch Scarisbrick Publishers.
- Haan, N. (1991). Moral development and action from a social constructivist perspective. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Handbook of moral behavior and development: Vol. I. Theory* (pp. 251-273). Hillsdale, NJ: Erlbaum.
- Haan, N., Aerts, E., & Cooper, B. B. (1985). *On moral grounds: The search for a practical morality*. New York: New York University Press.
- Kohlberg, L. (1969). Stage and sequence: The cognitive-developmental approach to socialization. In D. A. Goslin (Ed.), *Handbook of socialization theory and research* (pp. 347-480). Chicago: Rand McNally.
- Kohlberg, L. (1976). Moral stages and moralization: The cognitive-developmental approach. In T. Lickona (Ed.), *Moral development and behavior* (pp. 31-53). New York: Holt, Rinehart and Winston.
- Margoulis, D. (1989). Political involvement and socio-moral reasoning: testing Emler's interpretation. *British Journal of Social Psychology*, 28, 203-212.
- Miller, S. C., Bredemeier, B., & Shields, D. (1997). Sociomoral education thought physical education with at-risk children. *Quest*, 49, 114-129.
- Mosston, M., & Anshworth, S. (1986). *Teaching physical education* (3rd ed.). Columbus: Merrill Publishing Company.
- Mosston, M., & Anshworth, S. (1990). *The spectrum of teaching styles, from command to discovery*. New York: Wiley.
- Piaget, J. (1970). Piaget's theory. In P. Mussen (Ed.), *Carmichael's manual of child psychology* (pp. 703-732). New York: Wiley.
- Proios, M., & Doganis, G. (2003). Experiences from active membership and participation in decision-making process and age in moral reasoning and goal orientation of referees. *Perceptual and Motor Skills*, 96, 113-126.
- Rest, J. (1979). *Development in judging moral issues*. University Of Minnesota Press, Minneapolis.
- Rest, J. (1986). *Manual for the Defining Issues Test* (3rd ed.). Minneapolis: Center for the Study of Ethical Development, University of Minnesota, Minneapolis.
- Rest, J. R. (1999). *Postconventional moral thinking: a neo-Kohlbergian approach*. Mahwah: Lawrence Erlbaum.
- Slavin, R. (1995). *Cooperative learning: Theory, research, and practice*. Needham Heights, MA: Allyn and Bacon.

- Tan, J. & Tan, S. (1997). *Practice and Reciprocal styles of teaching in primary school physical education*. In React, National Institute of Education, Nanyang Technological University Singapore. Issue No 1.
- Telama, R. (1999). Moral development. In Y. V. Auweele, F. Bakker, S. Biddle, M. Durand, & R. Seiler (Eds.), *Psychology for physical educators* (pp. 321-342). Champaign, IL: Human Kinetics.
- Vygotsky, L. (1986) *Thought and Language*, M.I.T. Press, Cambridge, MA.
- Weinberg, R. S., & Gould, D. (2003). *Foundations of sport and exercise psychology* (3rd ed.). Champaign, IL: Human Kinetics.

Support of Development in P.E. – Didactical Conceptions and Empirical Results

N. Neuber (Muenster, Germany)

- 1 *Support of Development as Pedagogical Demand*
- 2 *Didactical Conceptions for Support of Development in P.E.*
- 3 *Creative Movement Education – an Example for Support of Development in Primary Schools*
 - 3.1 *Didactical Conception*
 - 3.2 *Teaching Test*
 - 3.3 *Empirical Results*
- 4 *Conclusions and Perspectives*

Abstract

Support of Development is a central term in the current German discussion about P.E. at school. Although it implies high pedagogical demands there can be noticed a lack of concrete didactical conceptions as well as of empirical reviews. Starting with general reflections about *Pedagogical Acting in P.E.* the contribution shows with *Object-* and *Subject-Orientation* two main directions of common sportdidactical considerations. Resuming these reflections *Creative Movement Education* in primary schools is described as an example which considers main requirements of a Support of Development in P.E. The center of this conception deals with variable *degrees of freedom*, which can be used in a self-active and creative way by the children. Within a three month intervention in primary schools (test- and controlgroup-design) testclass-pupils improved in the scales of *Common Reference to the Self* and *Self-consciousness* in an identity-test (N=261). The results show that a Support of Development in terms of Support of Identity is possible.

1 Support of Development as Pedagogical Demand

Support of Development (*Entwicklungsförderung*) is one of the most discussed terms in current German sportpedagogy. There are several reflections concerning this idea, e.g. Education of Movement as Support of Development (Prohl, 1999, pp. 236-252), Support of Development with a focus on children (Zimmer, 2000) or Support of Development with a focus on movement (Funke-Wieneke, 2001). The base of these considerations is the so called '*Doppelauftrag*', which sums up the main pedagogical aims of P.E. at school: Exploring the culture of movement, games and sports *and* Support of Development through movement, games and sports (MSWWF NRW, 1999). This means an explicit pedagogical accentuation of P.E. with high normative claims. So in regard to primary schools P.E. is supposed to react on changed living conditions of children and on changed development requirements by the



COPYRIGHT INFORMATION

TITLE: The Effects of Teaching Styles of Gymnastics and
Basketball Exercises on Children's Moral Development
Within the Framework Physical Education

SOURCE: Int J Phys Educ 45 no1 2008

The magazine publisher is the copyright holder of this article and it is reproduced with permission. Further reproduction of this article in violation of the copyright is prohibited. To contact the publisher:
<http://www.hofmann-verlag.de/>