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THE EFFECT OF TEACHER BEHAVIOUR ON STUDENTS MOTIVATION AND LEARNING OUTCOMES: A REVIEW

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ABSTRACT

The aim of the current paper is to bring together insights from research on teacher behaviour related with student's motivation and learning in physical education. Teacher behaviour is analysed in terms of two independent behaviour dimensions called teacher interpersonal behaviour and teaching styles (methods). The analysis is based on self-determination theory. More specifically, the effect of the autonomy supportive and controlling teacher on student's motivation and learning outcome in physical education context are discussed. Also, a brief review of the instruments to measure controlling and autonomy supportive teacher's behaviour is presented.

Keywords: *autonomy supportive and controlling teacher behaviour, teaching styles, self-determined behaviour*

INTRODUCTION

Teacher behaviour is one of the key determinants in forming the student's motivation and learning. Self-determination Theory (SDT) [12, 13, 14] is one of the most widely used theoretical frameworks to study motivation. Central to SDT is the distinction between autonomous and controlling forms of motivation. SDT focuses on the extent to which different types of motivation (intrinsic, identified, interjected, extrinsic and amotivated) are autonomous or self-determined and explains how social factors like behaviour of significant others and social environment impact on motivation through the satisfaction of psychological need for autonomy, competence and relatedness. To be self-determined means to act with a sense of volition and choice [35]. To be controlled means to act with feeling of pressure [14]. SDT states that the context

in which the activity is presented can make a difference to a person's level of motivation. If the activity is presented in such a way to encourage a sense of choice, highlight the important reasons for doing so, it is more likely to be intrinsically motivating and people are more likely to persist in doing the activities. Such an environment can be engendered by significant others like teachers and is known as autonomy supportive. An autonomy-supportive environment can be promoted through the adoption of specific behaviours by teachers that enhance intrinsic motivation in students. In contrast, the environment is said to be controlling when teachers do not provide meaningful rationale, use pressuring language, and pressure individuals accept their points of view [16].

Teacher behaviour in respect of interpersonal communication may be viewed as student's autonomy supportive or controlling. Several researchers [31, 33, 39] using the SDT, have examined the behaviours of autonomy-supportive and controlling teachers for the purpose of distinguishing more clearly what is meant by these two types of behaviours. Reeve and Jang [33] have characterized an autonomy-supportive teacher as responsive (e.g. spend time listening, acknowledge the student's feelings and perspective), supportive (e.g. praise the quality of performance), explicative (e.g. provide a rationale for tasks and limits); and who provides choice and opportunities for initiative taking and independent work, and offers student discussion time. In contrast, Assor et al. [1] have noted that controlling teacher in essence takes charge (e.g. hold the instructional materials, use directives/commands), shapes students toward a right answer (e.g. give solutions), motivates through pressure (e.g. threats, criticisms and deadlines), and doesn't allow students to work at their own pace.

Recently, Sierens with his colleagues [49] investigating the antecedents of teaching styles has distinguished three sources: pressure from above, from within, and from below. Pressure from above refers to pressure from principals, parents and colleagues, whereas pressure from within and pressure from below refer to stressful conditions in the functioning of teachers themselves and of their students, respectively. One important feature of pressure from within is teachers' own motivational orientation. According to SDT [36], self-determined motivation (i.e., intrinsic motivation) stems from the perceived fulfilment of three psychological needs: autonomy, competence, and relatedness. The results presented by Carson and Chase [5] showed that PE teachers' self-determined motivation related positively and strongly with the perceived fulfilment of autonomy, competence, and relatedness. That's mean that when psychological need for autonomy, competence and relatedness are satisfied, the teacher will be more motivated to teach. More specifically, perceptions of autonomy, competences, and relatedness were most closely aligned with intrinsic motivations to know, to accomplish, and experience stimulation. Also

teachers may perceive their students as high or low on quality of motivation, and a perception of low-quality motivation in students may represent another source of pressure for teachers. Regarding this statement, previous research using SDT theory have shown that when teachers believed that students were autonomously motivated they were more autonomy supportive and less controlling [28, 42] and that the impact of students' motivation on teachers' interpersonal behaviours was actually mediated by teachers' motivation [29, 51, 52]. Taken together, these results support an assumption that, when teachers interact with students, they often rely on their perceptions on the students' motivation as guides to their interpersonal behaviours.

TEACHER INTERPERSONAL STYLE: AUTONOMY SUPPORTIVE BEHAVIOUR

Research has shown that the level of perceived autonomy support given by significant others is associated with autonomous forms of motivation and behavioural persistence [8, 54]. Considerable research has shown the motivational implications of perceived autonomy support in physical education settings [19, 20, 22, 30, 43, 44, 45, 46]. For example, using structural equation modelling, Standage and colleagues [46] tested the relationships among perceived autonomy support from teachers, students' need satisfaction and motivational orientation, and the teachers' ratings of the students' motivated behaviour. Results of this study with the sample of 11–14 year old students provided strong support for the pattern of relationships predicted by SDT. Specifically, results showed that students' perceptions of autonomy support demonstrated by their teachers positively predicted the students' perceived competence, autonomy, and relatedness, which in turn, each positively related to the students' motivational orientation for physical education. Further, the degree to which the students reported more self-determined motivation positively related to the amount of effort and persistence they demonstrated as indicated by their physical education teacher.

The trans-contextual model of motivation proposed by Hagger et al. [19] showed that perceived autonomy support in PE context influenced not only autonomous forms of motivation (intrinsic motivation and identified regulation) in PE but also predicted autonomous forms of motivation on physical activity in leisure-time context. Cross-cultural studies using the trans-contextual model of motivation among Britain, Greece, Poland, and Singapore students [20] and among Britain, Estonia, Finland, and Hungary [21] confirmed the effect of perceived autonomy support from PE teachers on students' motivation in PE and in leisure time contexts. These models demonstrated

clearly that the influence of perceived autonomy support from PE teachers on autonomous motivation in a leisure-time context and leisure time physical activity, which is one of the main objectives of PE, will be mediated by autonomous motivation in PE.

Instrument to measure autonomy supportive behaviour

One of the widely used instrument to measure the autonomy supportive behaviour from significant others is Learning Climate Questionnaire (LCQ). This questionnaire was adapted by Williams and Deci [55] from the Health-Care Climate Questionnaire [56]. Several authors [19, 38] have used this scale in physical education and sport contexts to measure perception of the autonomy supportive behaviour from teachers and coaches. The LCQ has a single underlying factor with high internal consistency. The internal reliability (Cronbach's alpha) for this scale was satisfactory across samples (0.91; 0.82; 0.91; 0.95; 0.91; 0.92; and 0.91 for British, Greek, Polish, Singaporean, Estonian, Hungarian, and Finnish sample, respectively) [20, 21, 22]. Several authors [34, 47] measured also perceived autonomy support using a short (6 items) version of the original 15 items Health Care Climate Questionnaire [56.]

However, in sport context, an instrument to measure two forms of perceived autonomy support from coaches' (Autonomy-Supportive Coaching Questionnaire, ASCQ) was developed [9]. The presented forms were: interest in athletes' input (five items) and praise for autonomous behaviour (four items).

Stefanou with colleagues [48] proposed that autonomy support can be manifested in the three distinct ways: organizational autonomy support (e.g., allowing students to choose group members, choose evaluation procedure, to participate in creating and implementing rules), procedural autonomy support (e.g., offering students to choose materials to use in class, choose the way competence will be demonstrated, discuss their wants), and cognitive autonomy support (e.g., offering opportunities for students to evaluate work from a self-referent standard).

Recently, an instrument to measure four dimension of English language teachers' autonomy support in Malaysia was developed [53]. This instrument involves the following dimensions: being responsible, being friendly, showing respect and encourage confidence.

TEACHER INTERPERSONAL STYLE: CONTROLLING BEHAVIOUR

Early studies [15, 17] have shown that students in classrooms with controlling teachers displayed more extrinsic motivation, and lower perceived

competence and self-esteem, than did students with autonomy supportive teachers. A considerable body of research has shown that controlling environment contribute to low achievement, anxiety, preference for easy work and dependence on others to evaluate their work [e.g., 4]. Teachers in a position of authority can exhibit a controlling interpersonal style. In this case they can behave in a coercive, pressuring, and authoritarian way in order to impose a specific way of thinking and behaving upon their students. The external pressures applied by the teacher are perceived by the students to be the origin of their behaviour and the resultant loss of control undermines the students' psychological needs and sense of self-determination [12]. In other words, controlling teaching behaviours induce a change in the students' perceived locus of causality from internal to external [36]. The study among Estonian students [23] confirmed this statement showing a negative direct effect of perceived autocratic leadership behaviour on student's motivation and positive from teaching and instruction.

Instrument to measure controlling behaviour

In the educational context the teacher's controlling behaviour is usually measured by one-dimensional scale [1, 32, 50] with selected and adopted items from different scales [2, 40].

Recently, the instrument to measure multidimensionality of the perception of the coaches' perceived controlling behaviour has been proposed [3]. This instrument of Controlling Coach Behaviors Scale (CCBS) comprises 4 factors: controlling use of rewards, conditional regard, intimidation, and excessive personal control. An initial version of the instrument contained also the judging and devaluing subscale with four items reflecting the behaviours coaches may engage in that actively undermine athletes' feelings of self-worth. However, this scale was removed from the questionnaire due to high interfactor correlations.

All four remained subscales (factors) consisted of three items. Factor 1, *Controlling Use of Rewards,* consisted of the items that reflected coaches' use of extrinsic rewards and praise to induce athlete engagement or persistence in certain behaviours (e.g., "The only reason my coach rewards/praises me is to make me train harder"), Factor 2, the use of *Conditional Regard*, consisted of the items that reflected cases in which coaches withhold attention and support from athletes who do not display desired attributes and behaviours (e.g., "My coach is less friendly with me if I don't make the effort to see things his/her way"). Factor 3, *Intimidation,* consisted of the items that reflected the strategies coaches may use to intimidate their athletes into emitting requested behaviours (e.g., "My coach uses the threat of punishment to keep me in line

during training"). Factor 4, *Excessive Personal Control*, consisted also of three items that reflected coaches' over-intrusive behaviours (e.g., "My coach tries to interfere in aspects of my life outside of my sport").

Up to date different dimensions of the teachers' controlling behaviour perceived by students are not established and their role on learning outcomes remains unclear.

Therefore, there is a need for a multidimensional instrument to measure the teacher controlling behaviour by tapping the extent to which students perceive their teacher to engage in a variety of controlling behaviours during teacher-students interactions. It will be assumed that multidimensional instrument will allow discovering the darker side of teaching learning process.

TEACHING STYLES

Mosston's Spectrum of teaching styles [26, 27] established a framework of possible options in the relationship between teacher and learner and was based on the central importance of decision-making. The Spectrum [11, 27] consists of ten teaching styles based on the degree to which the teacher or the student assumes responsibility for what occurs in a lesson. This describes a continuum, where at one side is the direct, teacher-led approach (reproductive style) and at the other lies a much more open-ended and student-centered style (productive style) where the teacher acts only as facilitator. Some similarities can be drawn between two types of teacher's interpersonal behaviour and the Mosston's teaching styles. Student-centered teaching styles may be considered as autonomy-supportive behaviour and teacher-centered teaching styles as controlling behaviour.

A few interventions studies have been shown that the use of reproductive teaching styles resulted in forming more performance- and less mastery focused motivational climate [25, 37]. Morgan et al. [25] found that the use of pupil-centered reciprocal and guided discovery styles resulted in more mastery and less performance focused teaching behaviours than the traditional command or practice styles. Recently, Sicilia-Camacho and Brown [41] described the revised concept of the Spectrum of teaching styles, in which the conceptual basis of Spectrum has moved away from setting one teaching style against another, or from a versus to a non-versus style**.** In brief, there is no single excellent or superior teaching style or teaching-learning approach [27]. All teaching styles, when used appropriately, contribute to human development in different ways. Consequently, the use and significance of each individual style will be determined by the teaching objectives or by desired learning outcomes. Number of studies have dealt with the effects of different teaching styles on widely

recognized objectives of PE like motor skill acquisition, affective state, cognition and social skills [see for reviews 6, 7]. Chatoupis [6] highlighted the need to investigate the outcomes and contributions of different teaching styles, for a particular period of time, to teach content rather than to compare one style against another. According to the same author, in a typical school lesson most teachers use several teaching styles to achieve different objectives.

The differences and frequencies in use of teaching styles among teachers from different countries were also investigated [10, 18, 24]. For instance, the study [10] in which cross-cultural differences in the use of the different teaching styles in seven countries (Korea, Australia, France, England, Portugal, Canada and U.S.) were observed, the differences ranging from minor to substantial across those countries were found. All countries were significantly different in the use of the command style. Korean teachers differed in all styles from the other six countries. The teachers from England, Australia, and Canada reported the more frequent use of productive styles than Korean and Portuguese teachers. However, command and practice styles were the most preferred reproductive styles, whereas guided discovery, convergent discovery and divergent production styles were the most employed productive teaching styles. Similar results in respect of the use of reproductive styles were found in the study among Spanish, Estonian, Lithuanian, Latvian and Hungarian teachers [18]. No differences were found in the use for guided discovery and divergent styles. The results of this study also indicated to the existence of a strong correlation between productive styles and intrinsic motivation and between reproductive teaching styles with more external types of motivation.

CONCLUSION

Considerable research has shown that students' perceptions of autonomy supportive behaviour from teachers were positively related to the self-determined motivation whereas the perception of controlling undermined it. According to a new conception of the Spectrum of teaching styles the use of each style depends of the teaching objectives in PE, which also undoubtedly include motivating students to be physically active even after their school graduation. Therefore, it allows also the consideration that the use of productive styles seems to be more important than reproductive styles which are more appropriate for motor skill acquisition. However, only acquiring some motor skills enable to be physically active.

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