Sport Education Model and Motivation in University Physical Education Classes

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Abstract

Self-Determination Theory proposes that human beings have innate psychological needs.1 This study examined the different types of learning models in physical education courses (a Traditional Teaching Model \(N=166\) and the Sport-Education Model \(N=59\)) and how they relate to basic psychological need satisfaction and intentions to participate in future physical activity. Based on the intrinsic motivator relationships, basic psychological need satisfaction was hypothesized to be greater in courses using the Sport Education Model. Results indicated that students showed moderately higher levels of autonomy and relatedness in the Sport-Education Model courses. Follow-up analyses revealed that all basic psychological need satisfaction measures had stronger relationships with intentions to engage in future physical activity in the Sport-Education Model courses.

Keywords: Basic Psychological Needs Satisfaction, Instruction Styles, Sport-Education Model

1. Introduction

Multiple studies have been conducted on Self-Determination Theory and the extrinsic/intrinsic factors that motivate individuals to participate in physical activity.2 However, few studies have examined how different teaching methods of physical education impact these extrinsic and intrinsic factors.

Current research suggests that the intrinsic foundations of competence, relatedness, and autonomy during exercise will lead to greater basic psychological need satisfaction, which in turn, will lead to the increased likelihood of engagement of future exercise.3 Research also suggests that extrinsic motivators, such as ego driven aims, will reduce the strength of intrinsic foundations resulting in a decreased likelihood of participation in the future.4

In order to gain a better understanding of how Self-Determination Theory, psychological need satisfaction, and future intentions to participate in physical activity were related; this study examined variables within the context of Sport Education Model (SEM) and Traditional Teaching Model (TRAD) methods of instruction among university students enrolled in physical education courses. By examining these specific teaching methods, pre and post behavior and physical participation, this study helps determine which method of instruction produces the greatest psychological need satisfaction and intentions to participate in future physical activity.

2. Methodology

Questionnaires were given to 225 university students enrolled in physical education courses that used either the SEM \(n=59\) or TRAD \(n=166\). The questionnaires assessed the basic psychological need satisfaction of autonomy, competence, and relatedness using a 7-point Likert scale. Additionally, outcome measures of intention to engaging in future physical activity were assessed on a 7-point Likert scale.


In order to get a better understanding of how university students’ participation was influenced, pre and post questionnaires were given upon class enrollment. Questions ranged from personal experience, support of the teacher and feelings of autonomy during the semester.

Those who enrolled in TRAD courses were given task oriented teaching styles used in basic physical education classes (see Figure 1 for an illustration). The structure of this method was limited in nature:

- Restricted autonomy in sport related activity
- Simple goal oriented structure of learning (accomplish a task by set of specific rules and regulations)

![Traditional Teaching Model Diagram](image)

**Figure 1. Traditional teaching model**

Figure 1. This model follows a very simplistic task reward system in which a student is given a goal, fulfills the requirement and is rewarded for his/her efforts.

The SEM courses extended the length of the sport unit by exposing the student to the following:

- Providing authentic opportunities for skill and strategy practice, application, and assessment
- Immersing the student in the culture of the particular sport; and increasing student responsibility for their learning.
Figure 2. Revised model of self-motivation and self-determination theory

Figure 2. This model takes previously constructed teaching models and compiles them into one effective way of teaching with each individual factor contributing to the future participation of that individual.

Data as collected and analyzed using t-tests to examine mean-level differences between the SEM and TRAD courses and correlations were used to examine the relationship between competence, relatedness, autonomy, and enjoyment and future intentions to participate.

3. Data

Results presented in Table 1 were expected to be consistent with prior research findings and reveal that SEM will lead to greater participation in physical activity in the future. However, the result of the t-tests indicated marginally significant one-tailed differences between the SEM and TRAD instruction methods for autonomy ($d=.23$) and related. Follow-up analyses were then conducted to assess the relationship between the basic psychological needs satisfaction constructs and intentions to participate in the TRAD and SEM conditions. Results indicated that the correlations between the three basic psychological needs satisfaction measures and intention to engage were more than twice as large in the SEM courses compared to the TRAD courses.
Table 1. Comparison of evaluation measure for sports education model vs. traditional model

<table>
<thead>
<tr>
<th></th>
<th>Sports Education Model</th>
<th>Traditional Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( n = 59 )</td>
<td>( n = 166 )</td>
</tr>
<tr>
<td>Competence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation w/ intention</td>
<td>.58</td>
<td>.25</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>5.97 (.90)</td>
<td>5.95 (.85)</td>
</tr>
<tr>
<td>Relatedness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation w/ intention</td>
<td>.46</td>
<td>.21</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>6.22 (.90)</td>
<td>5.99 (.85)</td>
</tr>
<tr>
<td>Autonomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation w/ intention</td>
<td>.57</td>
<td>.24</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>6.09 (.95)</td>
<td>5.87 (.97)</td>
</tr>
<tr>
<td>Enjoyment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation w/ intention</td>
<td>.40</td>
<td>.32</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>6.26 (.89)</td>
<td>6.02 (.90)</td>
</tr>
</tbody>
</table>

4. Conclusion

The current study sought to determine the extent to which different instruction methods in physical education courses were related to basic psychological need satisfaction and intentions to participate in future physical activity. The original hypothesis proposed the SEM courses would produce greater psychological need satisfaction. Results provided weak support for this hypothesis as only autonomy and relatedness were found to be different. However, correlations indicated that basic need satisfaction factors and future intentions were substantially stronger in the SEM courses compared to the TRAD course model.

After analyzing and reviewing collective data, it is evident that basic psychological need satisfaction in the SEM is greater than the TRAD. The revised psychological need satisfaction model lays a firm foundation for further research on future individual intentions of physical activity by assessing each individual factor of competency, relatedness, autonomy, and enjoyment during physical activity. Although this study did not result in the anticipated significance, this study supports prior research relating autonomy and participation differences in the Sport Education model.

5. References