Impact of a Methods Course on Pre-service Classroom Teachers

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Abstract

Background/Purpose: Elementary classroom teachers play key roles in school-wide physical activity initiatives, such as “Let’s Move in Schools,” and it is important to consider their preparation. The purpose of this study was to examine pre-service classroom teachers’ beliefs about physical education, knowledge of the subject, and teacher self-efficacy beliefs to perform specific teaching tasks.

Methods: A mixed-methods design was employed to examine pre-service classroom teachers’ beliefs about, knowledge of, and teacher self-efficacy theory (1997) served as the theoretical framework.

Analysis: One-way analysis of variance (ANOVA) and Pearson’s correlation were conducted on data collected from pre- and post-tests. A binary logistic regression was used to determine the relationship between pre- and post-teacher self-efficacy and teaching physical education.

Conclusions: Pre-service classroom teachers had positive beliefs about teaching physical education, knowledge of the subject, and teacher self-efficacy. However, there was no significant difference in self-efficacy beliefs between pre- and post-tests.

Review of Literature

Classroom teachers have had positive attitudes towards physical education prior to completing a methods course (Morgan & Hansen, 2008a). A lack of confidence to teach physical education (Carney & Hansen, 2008b) and having poor attitudes towards teaching physical education (Curtner-Smith, 2007) have been identified as significant challenges.

Self-efficacy Theory (Bandura, 1997)

Self-efficacy is defined by Bandura as “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (1997, p. 3).

Research Questions

1. At course entry, what are pre-service classroom teachers’ beliefs about physical education, knowledge of the subject, and teacher self-efficacy beliefs to perform specific teaching tasks?
2. At course completion, what are pre-service classroom teachers’ beliefs about physical education, knowledge of the subject, and teacher self-efficacy beliefs to perform specific teaching tasks?
3. How do experiences in one of three early field experiences impact the pre-service classroom teachers enrolled in a physical education methods course?

Methods

• IRB approval
• Complementary mixed-method design
• Physical education methods course for pre-service classroom teachers at a large mid-western university
• Participants N = 66; 61.1% male and 93.9% female; 80.3% Caucasian, 12.0% Asian American; 3.0% African American, 1.5% Hispanic; and 3.0% Multiracial; 25.8% Approximately 85%
• Quasi-experimental with 3 lab conditions: Teaching Children (n=27), Peer-teaching (n=20), and No Teaching (n=19)

Quantitative

• Pre-course
• Demographic questionnaire
• Godin Leisure-Time Exercise Questionnaire (GLTEQ) in order to quantify participants’ leisure time physical activity (Godin & Shephard, 1985).
• Pre- and post-course
• Values and Purpose of Physical Education Questionnaire (Xiang et al., 2002)
• Teacher Efficacy Beliefs System-Self (TEBS-S) (Dellinger, Bobbett, Olivier, & Ellett, 2001)
• Physical education knowledge test
• Data analyses
• Examination of frequency distributions, quantile-quantile plots, and descriptive statistics to determine conditions of normality
• Paired t-tests
• One-way ANOVAs of gain scores
• General linear model (GLM)

Qualitative

• Pre- and post-course
• Focus group interviews (n=18)
• Individual semi-structured interviews (n=15)
• Data analyses
• Inductive analysis and constant comparative method
• Triangulation
• Negative case search, memoing, and external audit

Qualitative Results

Table 1

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<tr>
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<th>Pre-Test</th>
<th>Post-Test</th>
<th>t-Value</th>
<th>p-Value</th>
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<tr>
<td>Teaching Children</td>
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</tr>
<tr>
<td>Knowledge Test</td>
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<td>4.75</td>
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<tr>
<td>Peer-teaching</td>
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<td>Knowledge Test</td>
<td>4.50</td>
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Discussion

“I’d probably use movement breaks the most, it’s the easiest and most practical thing to do. But if there was a lesson plan that I thought would help a certain subject, like getting them outside, it would help because they get more excited and focus more. The more is better and more is better.” (Andrea, peer-teaching, II)

Conclusion

Physical education methods courses designed for pre-service classroom teachers can lead to positive belief changes and knowledge gain in physical education, which may be beneficial for future teaching practices.

References