

EFFECT OF PRACTICUM EXPERIENCES ON PRE-PROFESSIONAL PHYSICAL EDUCATION TEACHERS'¹ INTENTIONS TOWARD TEACHING STUDENTS WITH DISABILITIES IN GENERAL PHYSICAL EDUCATION CLASSES

EFEITO DE EXPERIÊNCIAS PRÁTICAS NAS INTENÇÕES DE PROFESSORES DE EDUCAÇÃO FÍSICA NÃO CAPACITADOS PARA ENSINAR, NA ESCOLA REGULAR, ALUNOS COM DEFICIÊNCIA

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ABSTRACT: The purpose of this study was to examine the effect of practicum experiences on pre-professional physical education teachers' intentions toward working with individuals with disabilities. Pre-professional physical education teachers were students in their respective university's PETE programs and were categorized based on level of practicum experience. Over a three year period, a total of 596 PETE students completed the Physical Educators' Intention toward Teaching Individuals with Disabilities (PEITID) questionnaire (Rizzo, 2007). Significant differences were found among groups for overall intention to teach students with disabilities in their general physical education classroom. Additionally, trends of more positive intentions among pre-professionals with greater practicum experiences lead to higher Quality of Experience and Perceived Competence. The results of this study indicated that the level and quality of practicum experience significantly influence pre-professional teachers' intentions and competence toward teaching individuals with disabilities. (138 words)

KEYWORDS: Special Education. Attitudes. Practicum. Adapted Physical Education. Perceived competence.

RESUMO: O objetivo deste estudo foi examinar o efeito de experiências práticas nas intenções dos professores de educação física não capacitados com relação ao trabalho com pessoas com deficiência. Participaram da pesquisa professores de educação física matriculados como estudantes em programas de capacitação (PETE) em suas respectivas universidades, categorizados com base no nível de experiência prática. Num período de três anos, 596 alunos PETE preencheram o questionário PEITID - Physical Educators' Intention toward Teaching Individuals with Disabilities (Rizzo, 2007). Foram encontradas diferenças significativas entre os grupos que tinham a intenção de ensinar alunos com deficiência em turmas regulares de educação física. Além disso, as intenções mais positivas entre os professores não capacitados com mais experiência prática se relacionam com a maior Qualidade de Experiência e Competência por eles Percebida. Os resultados deste estudo indicaram que o nível e a qualidade da experiência prática influenciaram significativamente nas intenções dos professores não capacitados e na competência para o ensino de pessoas com deficiência.

PALAVRAS-CHAVE: Educação Especial . Atitudes. Prática. Educação Física Adaptada. Percepção de Competência.

¹ Pre-professional physical education teachers' are teacher candidates in university programs which lead to teacher certification in the field of general physical education

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1 INTRODUCTION

No Child Left Behind lends to teachers being held accountable for the learning outcomes of their students (United States, 2002). While physical education has not been directly included in the focus of this educational incentive, national organizations have released through the American Association for Physical Activity and Recreation (AAPAR) the standards for defining a highly qualified adapted physical educator (AAPAR, 2007). The foundation for highly qualified adapted physical educators revolves around the expectation that physical education teachers provide quality inclusive experiences for their students with disabilities, given that the majority of students with a disability will be educated in the general physical education setting (USDOE, 2003). This information, coupled with the fact that 69% of PETE programs⁵ offer only one professional preparation course in adapted physical education and 85% of those courses provide some form of practicum experience, emphasizes the need for integral teacher preparation geared toward working with individuals with disabilities in the general physical education setting (PILETIC; DAVIS, 2010).

One of the most dictating characteristics of a teachers' effectiveness when instructing individuals with disabilities is their attitude (DUCHANE; LEUNG; COULTER-KEM, 2008; LEATHERMAN; NIEMEYER, 2005). Research has concluded that teachers' attitudes are a product of various professional characteristics such as their educational preparation, perception of abilities, and amount of experience teaching individuals with disabilities (RIZZO; VISPOEL, 1992). Teachers with greater professional preparation in the area of working with individuals with disabilities (RIZZO, 1985), who demonstrated more positive perceptions of their abilities to teach this population (RIZZO; VISPOEL, 1991; RIZZO; WRIGHT, 1988), and who had greater experiences working with individuals with disabilities (MARSTON; LESLIE, 1983; RIZZO; VISPOEL, 1991) were more likely to have a more positive attitude than teachers who were on the other end of the spectrum. With greater experience, background, and professional perception comes higher expectations for the success of their students with disabilities (ELLIOTT, 2008). All are defining characteristics of a highly qualified adapted physical educator (AAPAR, 2007).

Even with multiple studies reporting on the impact of teacher preparatory experience on their attitudes and success in teaching students with disabilities, the majority of PETE programs across the nation and state requirements still mandate a singular course in adapted physical education at the university level (PILETIC; DAVIS, 2010). With sixty-nine percent of the surveyed university programs offering only one course focusing on adapted physical education and instructing diverse populations and 85% of those courses also including a hands-on practicum,

⁵ Physical Education Teacher Education (PETE) programs are programs at 4-year universities and colleges which focus on core disciplines critical to success in the field of general physical education, such as adapted physical education, elementary and secondary physical education, motor development, movement skills, and other discipline courses which lead to the final practical experience of student teaching.

many professional preparation programs may not be meeting the needs of their PETE students prior to them entering the field of physical education, especially with respect to practicum experiences which develop positive attitudes toward teaching individuals with disabilities (HODGE; JANSMA, 1999; HODGE, et al., 2002; HODGE; TANNEHILL; KLUGE, 2003).

Therefore, the purpose of this study was to investigate the impact of level of practicum experience on attitudes toward working with students with disabilities. Specifically the research questions consisted the following: (a) Does the level of practicum experience impact pre-professional physical educators' overall (average) intent to teach students with disabilities?; (b) Is pre-professional physical educators' quality of experience influenced by the type of practicum experience?; (c) Is pre-professional physical educators' perceived competency influenced by the type of practicum experience?; and (d) Does pre-professional physical educators' quality of practicum experience and perceived competence impact their overall intent to teach children with disabilities in their general physical education class?

2 METHOD

2.1 INSTRUMENTATION

The instrument used to measure teacher's intention was the "Physical Educators' Intention towards Teaching Individuals with Disabilities" (PEITID) (RIZZO, 2003) (T.L. RIZZO, personal communication, June 08, 2011). The PEITID was developed as a measure of physical educators' intentions toward teaching students with disabilities in the general physical education classroom and is based on the Theory of Planned Behavior (TpB). The TpB indicates that there is a connection between a teacher's belief and intention in teaching students with disabilities with both influencing their behavior (AJZEN, 1991).

The first part of the PEITID consists of respondents reading a scenario of a hypothetical student, Kyle, who has cerebral palsy and will be transferring into the general physical education classroom. In addition, information relating to Kyle's physical and motor skills are included, as well as functional and behavioral aspects impacting his performance in physical education. With this information, participants are instructed to respond to a total of 56 statements based on their level of agreement or disagreement on a 7-point Likert scale (i.e., 1 = strongly agree, 4 = undecided/neutral, 7 = strongly disagree) relating to including Kyle in their general PE class. Lower scores (<4) indicated a more favorable intent to include Kyle in general PE classes and an average score of 4 indicated a neutral or indecisive intent, while higher scores (>4) indicated less favorable intentions. To ensure proper scale means, scores were reversed for negatively worded statements (statements 16-21; 32-33; 45-48; 54-55).

The final part of the PEITID consisted of items about selected participant attributes and demographic information. Such general questions included: "Please identify your gender", "What is your age?", "How many years have you taught

PE?", "Have you taken any adapted PE courses? If yes, how many courses?", "Have you had any experience teaching students with disabilities?", "Rate the quality of your experience teaching students with disabilities (no experience, not good, satisfactory, very good)", and "How competent do you feel teaching students with disabilities? (Not at all, Somewhat, Very)."

For the purpose of this study, psychometric data was determined using a smaller scale sample from the larger sample group. Using a total of $N = 43$, represented by all three groups (pre-PETE, PETE, CAMP), and PEITID's completed 10 days apart, reliability was determined to be $r = .929$ through calculation of Cronbach's Alpha. Furthermore, validity was confirmed by evaluation of the PEITID by experts in the field of adapted physical education (4), pedagogy (2), and special education (1). Each professional who evaluated the PEITID for validity were all faculty members at research institutions and well-regarded in their field. Each expert was informed of the purpose of this study and asked to review the PEITID for both face and content validity as written. All six experts confirmed both face and content validity of the PEITID for use within the purpose of this study.

The PEITID survey was used to assess the relationship between intent of physical education teachers toward teaching individuals with disabilities in a regular classroom based on ten attributes. The attributes on the PEITID were: (a) intention to teach disabilities in general PE class; (b) opinion about teaching disabilities in regular PE class; (c) how other's would think about teaching disabilities in your general PE class; (d) control in teaching individuals in your general PE class; (e) what will happen/occur when teaching disabilities in your general PE class; (f) value in teaching disabilities in your general PE class; (g) others opinions about teaching disabilities in general PE class; (h) value of opinions of others when teaching disabilities in general PE class; (i) factors affecting ability to teach disabilities in general PE class; and (j) conditions affecting ability to teach disability in general PE class. Twelve additional questions related to teachers experience and background were also evaluated and included such questions as gender, age, years experience, quality of experience teaching individuals with disabilities, and self-evaluation on competency toward teaching individuals with disabilities. The intent of this study was to determine which of the 10 classroom-related attributes were most directly affected by practicum experience.

2.1 PARTICIPANTS

In the present study, a convenience sample of 596 participants from three major universities with professional preparation teacher education programs completed the PEITID survey. The rationale for using a convenience sample and courses rather than random assignment was to ensure equality of program content as was consistent with the three programs involved. Participants were 284 (46.7%) females and 312 (53.3%) males who were at one of three levels within their professional preparation program at their respective university: pre-PETE

($N = 183$), PETE ($N = 285$), and CAMP ($N = 128$). The pre-PETE group consisted of those students who were new to the physical education program and not yet taken any core pedagogy courses, including adapted physical education at their respective university. The PETE group was those who were formally in the professional development program and having completed at least one core adapted physical education course with a hands-on practicum. The CAMP group was those who were completing advanced studies in adapted physical education with the intention of qualifying for the C.A.P.E. certification and were presently serving as counselors at a camp for children and youth with specific disabilities. Demographic information for the participants is given in Table 1.

Table 1 - Participants' demographics

Demographics	Pre-PETE $N = 183$	PETE $N = 285$	CAMP $N = 128$
Gender			
Female (n)	98	113	73
Male (n)	85	172	55
Age			
Range	18-34	18-35	19-37
M	20.99	21.49	22.21
SD	2.27	2.98	3.10
Number of Adapted PE classes taken			
Range	0-1	1-5	1-5
M	0.09	1.30	2.98
SD	0.30	0.65	1.35
Number of Special Education classes taken			
Range	0-2	0-4	0-3
M	0.18	0.14	0.35
SD	0.45	0.48	0.74
Experience with Individuals with Disabilities (years)			
Range	0-4	0-10	1-9
M	0.99	1.13	1.66
SD	1.12	1.71	1.62

2.2 PROCEDURES

IRB approval and consent was gained first at the sponsoring university followed by the two additional participating universities. Pre-PETE and PETE classes were recruited by correspondence with colleagues teaching the respective courses. The pre-PETE group was students who were taking an introductory to physical education course prior to undertaking any core physical education pedagogy courses. The PETE group was students who were completing the required adapted physical education courses within their respective universities pre-professional program. The CAMP group was those who were taking additional adapted PE courses and professional preparation (such as the adapted PE minor) leading them to qualify for the C.A.P.E. examination. Copies of the PEITID were given to the associated professor who presented them to their classes for completion. Any student who did not wish to participate was allowed to leave the classroom at that time. Students were given approximately 30 minutes to complete the survey. In lieu of signed consent forms, student completion of the survey served as indication of consent. Collection of data occurred over a period of three years with pre-PETE and PETE courses being evaluated at the end of the academic year in which the course was offered and CAMP being evaluated at the end of the actual camp experience during the summer months.

3 RESULTS

Descriptive statistics in the form of mean and standard deviations for each attribute related to intention to teach as well as the overall average score (Table 2) indicates that, in general, all groups had a positive intention of educating students with disabilities in their general physical education classroom (pre-PETE $M = 3.04$, $SD = 0.84$; PETE $M = 2.82$, $SD = 0.74$; CAMP $M = 2.62$, $SD = 0.56$). While positive intentions were indicated for the most part by all groups, several notable differences were reflected across the groups. For each teacher-centered attribute (intention, opinion, control, value, factors and conditions), a trend existed indicating pre-PETE students had the least positive intention compared to those in the PETE program and CAMP experience. Additionally, for the same attributes, those with CAMP experience demonstrated more positive intentions than those in the PETE program.

Table 2 - Mean intention scores and standard deviations for nine attributes and overall intention score

Attribute	Pre-PETE N = 168		PETE N = 304		CAMP N = 123		F
	M	SD	M	SD	M	SD	
Intention to teach	2.08	1.25	1.79	1.11	1.37	0.98	14.80*
Opinion about teaching	2.45	1.19	2.21	1.20	1.79	0.92	12.52*
Significant people's opinion	2.32	1.20	1.98	1.17	2.08	1.00	4.90*
Control in teaching	3.10	1.27	2.84	1.11	2.44	0.88	13.12*
What you believe will occur	3.59	0.85	3.54	0.89	2.89	0.85	29.65*
Value in teaching	2.82	1.07	2.65	0.92	2.25	0.74	14.71*
What people would say	2.81	1.06	2.80	1.14	2.69	1.03	0.651
Extent of agreement	3.65	1.00	3.39	1.06	3.87	0.95	10.62*
Factors affecting ability to teach	3.75	1.03	3.53	1.03	3.20	0.96	11.18*
Conditions affecting ability to teach	3.83	0.87	3.49	0.76	3.43	0.80	13.10*
Average intention score	3.04	0.84	2.82	0.74	2.60	0.57	13.53*

* $p < .05$.

One-way ANOVA was computed to determine whether the differences between groups were significant for the ten attributes evaluated within the PEITID. The outcome indicated significance between all three groups for all but one attribute related to the following statement: "Tell us what you think the following people would say about you teaching a student like Kyle in your PE class" with reference to the principal, parents, general classroom teachers, special educators, and non-disabled students. With respect to that specific attribute area, there was no significant difference between the groups on teachers' beliefs that other professional, parents and peers would want the student with a disability being taught in the general PE setting. However, Scheffe' post hoc analyses determined several areas where differences among the groups were apparent. These results are indicated in Table 3.

Table 3 - Scheffe' Post-Hoc Analyses for Differences between Groups

Attribute	Groups		<i>p</i>
Opinion about teaching	Pre-PETE	PETE	.088
	Pre-PETE	CAMP	.000
	PETE	CAMP	.003
Significant people's opinion	Pre-PETE	PETE	.008
	Pre-PETE	CAMP	.195
	PETE	CAMP	.718
Control in teaching	Pre-PETE	PETE	.059
	Pre-PETE	CAMP	.000
	PETE	CAMP	.003
What you believe will occur	Pre-PETE	PETE	.819
	Pre-PETE	CAMP	.000
	PETE	CAMP	.000
Value in teaching	Pre-PETE	PETE	.155
	Pre-PETE	CAMP	.000
	PETE	CAMP	.000
What people would say	Pre-PETE	PETE	.999
	Pre-PETE	CAMP	.620
	PETE	CAMP	.561
Extent of agreement	Pre-PETE	PETE	.027
	Pre-PETE	CAMP	.168
	PETE	CAMP	.000
Factors affecting ability to teach	Pre-PETE	PETE	.068
	Pre-PETE	CAMP	.000
	PETE	CAMP	.010
Conditions affecting ability to teach	Pre-PETE	PETE	.000
	Pre-PETE	CAMP	.000
	PETE	CAMP	.787
Average intention score	Pre-PETE	PETE	.008
	Pre-PETE	CAMP	.000
	PETE	CAMP	.019

In addition, an ANOVA was computed to investigate the impact on teachers' quality of teaching experience and level of competency on their overall intention to teach children with disabilities. Outcomes were investigated by educational groups (Pre-PETE, PETE, and CAMP). Scheffe' post hoc analyses indicated significant differences among all three groups for each of the variables. The results are detailed in Table 4.

Table 4 - Quality of experience, competency and overall intention scores by educational group

Variable	Pre-PETE		PETE		CAMP		F
	M	SD	M	SD	M	SD	
Quality of Experience†	2.59	1.12	3.21	0.82	3.64	0.57	12.87*
Teacher Competency‡	2.12	0.52	2.36	0.53	2.68	0.48	7.78*

†Scored as 1 = none; 2 = not good; 3 = satisfactory; and 4 = very good

‡Scored as 1 = not at all; 2 = somewhat; and 3 = very

* $p < .05$.

To determine what influence quality of experience and teacher competency had on the overall intention to teach students with disabilities in the general physical education classroom, a correlation coefficient was computed. The results of this analysis are reported in Table 5.

Table 5 - Correlations between quality of experience, perceived competence, and overall intention scores

Comparison	Group		
	Pre-PETE	PETE	CAMP
Quality of Experience/ Perceived Competence	.510*	.347*	.406*
Quality of Experience/ Overall Intention Score	-.058	-.121*	-.375*
Perceived Competence/ Overall Intention Score	-.229*	-.181*	-.070

* $p < .05$.

4 DISCUSSION

The purpose of this present study was to investigate the impact that practicum experiences had on a pre-professional teachers' intention toward working with a student with a disability in the general physical education classroom. Additionally, not only the amount of practicum experience was investigated but also the type given that the one of the groups (PETE) had

experienced practical experience in the university setting another (CAMP) had a more immersion experience working with children with disabilities in the sports and recreation setting. Also investigated was the quality of experience and teacher competency on the overall intention to teach individuals with disabilities in the general physical education classroom.

This study resulted in several important findings. First, the research instrument resulted in a Cronbach's Alpha coefficient of $r = 0.93$ indicating that the PEITID consisted of sufficient internal consistency. In addition, the PEITID was also deemed to be a valid instrument for investigating teachers' intent to teach individuals with disabilities in their general physical education classroom by six renowned experts, thereby satisfying psychometric property requirements.

With respect to the research question, "*Does the level of practicum experience impact pre-professional physical educators' overall (average) intent to teach students with disabilities?*" As a whole, pre-professional physical education majors demonstrated generally positive intentions toward teaching students with disabilities in the general physical education classroom ($M = 2.84$, $SD = 0.75$). In addition, all three groups reported a positive intention toward teaching students with disabilities in the general physical education classroom. However, the group with the least amount of education and experience was the group who demonstrated the least positive attitude among the three groups (pre-PETE $M = 3.04$, $SD = 0.84$). In addition, the pre-PETE group was closer to neutral territory with respect to their intentions, while the CAMP group demonstrated the most positive intentions ($M = 2.60$, $SD = 0.57$) which were between responses of agree and somewhat strongly agree for all questions on the survey. These results were in agreement with past studies which indicated that educational background and experience were strong predictors for overall favorable intentions and attitudes (HODGE; JANSMA, 1999; KOWALSKI; RIZZO, 1996; KOZUB; LIENERT, 2003; RIZZO; VISPOEL, 1991).

With respect to the second research question, "*Is pre-professional physical educators' quality of experience influenced by the type of practicum experience?*" A significant difference ($F(2,594) = 12.87$; $p < .000$) existed among the three groups based on quality of experience gained through hands-on experience, either through directly working with children with disabilities, practicum experience as part of adapted physical education courses, and/or through immersion experiences such as the camp experience. Quality of experience was categorized using the range of 1 = none, 2 = not good, 3 = satisfactory, and 4 = very good. A trend among the groups was demonstrated in that those with greater education reported to have better quality experiences. The pre-PETE group reported an average experience that fell between the "*not good*" and "*satisfactory*" ($M = 2.59$, $SD = 1.12$) while the PETE ($M = 3.31$, $SD = 0.82$) and CAMP ($M = 3.64$, $SD = 0.57$) reported their quality of experiences to be at least "*satisfactory*" and in the case of the CAMP group, closer to being "*very good*." These outcomes are consistent with past research that indicated an increase in coursework and experience working with individuals with disabilities, including those similar to camp experience which used the infusion

model, had a positive impact on the quality of experience of pre-professional teacher education majors (APACHE; RIZZO, 2005; BLOCK; RIZZO, 1995; FOLSOM-MEEK et al., 1995; HODGE, 1998; KOWALSKI; RIZZO, 1996; KOZUB; LIENERT, 2003; RIZZO; VISPOEL, 1991). The third research question followed and consisted of investigating, *"Is pre-professional physical educators' perceived competency influenced by the type of practicum experience?"* A significant difference ($F(2, 594) = 7.82, p = .000$) was found between the groups with respect to perceived competence. The perceived competence of pre-professional physical education majors' became more positive with the greater educational and practicum experience. Perceived competence was categorized on a scale of 1-3 based on how competent one felt working with students with disabilities in the general physical education setting with ratings being 1 = not at all, 2 = somewhat, and 3 = very. As a group, those who were pre-PETE demonstrated the lowest level of perceived competence ($M = 2.12, SD = 0.52$) compared to the groups with more education and hands-on experience (PETE $M = 2.36, SD = 0.53$; CAMP $M = 2.68, SD = 0.48$). Past research has indicated that teachers who had more positive and strong teacher attributes, including perceived competency, demonstrated a more positive attitude toward teaching students with disabilities (HODGE; JANSMA, 2000). In addition, the findings of this study were consistent with past research which found that greater experience and educational background has been found to directly influence how a professional perceives their own competency in the field (DUCHANE; LEUNG; COULTER-KEM, 2008; HODGE; JANSMA, 2000; JEONG; BLOCK, 2011; SIMONS; KALOGEROPOULOS, 2005).

Finally, the last research question was, *"Does pre-professional teachers' quality of experience and teaching competency influence their overall intention to teach students with disabilities in the general physical education classroom?"* The overall quality of hands-on experience and ratings of teachers' competency to teach individuals with disabilities had a significant effect on pre-professional teachers overall intention toward teaching individuals with disabilities in their general physical education classroom. The consistent outcome was the higher quality hands on experience the greater competency the teacher felt regarding their skills and the more positive intention to teach individuals with disabilities in their general physical education classroom. This was based on the overall descriptive data for quality of experience and perceived competency by group. These outcomes were in concurrence with multiple previous studies which indicated greater experience and competency directly resulted in more favorable intentions and attitudes toward teaching children with disabilities (BLOCK; RIZZO, 1995; DUCHANE; LEUNG; COULTER-KEM, 2008; FOLSOM-MEEK; et al., 1995, 1999; HODGE, 1998; HODGE; JANSMA, 2000; JEONG; BLOCK, 2011; KOWALSKI; RIZZO, 1996; RIZZO; VISPOEL, 1991; ROWE; STUTTS, 1987; SIMONS; KALOGEROPOULOS, 2005). However, further analyses led to completing a correlation coefficient between the variables to determine the extent of influence that quality of experience and perceived competency had on overall intention to teach students with disabilities in the general physical

education classroom. The results indicated that there was a significant correlation between Quality of Experience and Perceived Competence which is in agreement with past research. For the PETE and CAMP groups, there was a significant correlation between Quality of Experience and Overall (average) Intention to teach students with disabilities in the general physical education classroom. There was not, however, a significant correlation between these variables for the pre-PETE group. The reasoning for this may have been the lack of relevant experience this group may have had leading them to report experience from another entity rather than a professional preparation program. Finally, a significant correlation was found between Perceived Competency and Overall (average) Intention scores for the pre-PETE and PETE groups, but not the CAMP group. This finding was surprising and reasoning behind this outcome is unknown and points to the need for further study.

Overall, it was determined that greater practicum experiences lead to higher quality of experience, increased perceived competence, and higher overall intent to teach students with disabilities in general physical education classes. The outcome of this study supports the need for not only increased educational experience in adapted physical education, but also practicum experiences providing quality hands-on opportunities for teaching students with disabilities leading to increased perceived competence by physical education majors. In fact, this study provided evidence that an submersion experience such as provided by working a summer camp for children with disabilities may provide greater quality and perceived competence building experiences leading to pre-professionals to have a greater intent to teaching students with disabilities in the general physical education classroom when compared to hands-on experiences within university adapted physical education classes.

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