

# The Preparation of Qualified Adapted Physical Education Teachers with a Federally Funded Distance-Learning Program

Jiabei Zhang

Western Michigan University, USA

## Abstract

*The purpose of this paper was to evaluate the effectiveness of a federally funded distance-learning program for preparing qualified adapted physical education (PE) teachers. This program recruited 54 students. Most students completed 12 courses in a two-year format in a distance-learning approach for a master's degree in adapted PE. The effectiveness of implementing this program was evaluated based on four measures, (a) the percentage of students who exited the program prior to completion, (b) the percentage of students who completed courses with a mean of GPA  $\geq 3.0$ , (c) the percentage of students who were qualified as adapted PE teachers, and (d) the percentage of students who were satisfied with the distance-learning program. The results obtained over the five-year funding period from 01/01/2011 to 12/31/2015 indicated that (a) 11% of the students exited the program before completion, (b) 89% of the students completed all courses with GPA  $\geq 3.0$ , (c) 89% of the students were qualified as adapted PE teachers with receiving APE approvals, and (d) 84% of the students were satisfied with the competencies addressed in the program of study. These results indicated that the federally funded distance-learning program was effective in preparing qualified adapted PE teachers.*

## 1. Introduction

Adapted physical education (PE) is defined as the art and science of developing, implementing, and monitoring a carefully designed PE instructional program for a learner with a disability, based on a comprehensive assessment, to give the learner the skills necessary for a lifetime of rich leisure, recreation, and sport experiences to enhance physical fitness and wellness [1]. Adapted PE teachers are schoolteachers delivering adapted PE services to students with disabilities [2]. Qualified adapted PE teachers are certified teachers in the field of adapted PE prepared through a credentialed preparation program in adapted PE at a college or university [3].

A significant need for training qualified adapted PE teachers has existed for more than 40 years [4]. Based on the assumption that all students with disabilities who have needs for PE classes must receive adapted PE services, the additional number

of qualified adapted PE teachers needed should be quantitatively documented in a prevalence-based projection model [5]. This model estimates the additional number of qualified adapted PE teachers needed by dividing the number of students with disabilities requiring adapted PE services enrolled in schools by the caseload of an adapted PE teacher, and then subtracting the number of qualified adapted PE teachers employed in schools [5]. Using this model, it was estimated that a total of 22,116 additional adapted PE teachers were needed in the nation [6]. The need for more qualified adapted PE teachers is therefore significant in the nation.

For preparing more qualified adapted PE teachers in the nation, the U.S. Department of Education (USDE) has provided college and universities with federal grant opportunities to apply for training qualified adapted PE teachers for many years [7]. A college or university with a credentialed personnel preparation program in adapted PE was eligible to apply for the federal grant in the category of personnel preparation in special education, early intervention, and related services [7]. If a credentialed personnel preparation program in adapted PE at a college or university was federally funded with a grant, students enrolled in this program would receive financial support to complete the program of study. Over more than 40 years, many credentialed personnel preparation programs in adapted PE in the nation have received such federal grants for training qualified adapted PE teachers; however, the need for training qualified adapted PE teachers has chronically existed [4].

The chronic need for training qualified adapted PE teachers has been resulted from many reasons over past 40 years. One of these reasons was that no any distance-learning personnel preparation programs in adapted PE in the nation were created before 2011 to meet the distance-learning need demonstrated by potential students [7]. Before 2011, all credentialed personnel preparation programs receiving federal grants in adapted PE in the nation were implemented in a traditional way. All students receiving financial supports were required to stay in the colleges or universities for receiving federal grants to complete the program of study, which resulted in that those students needing a distance-learning approach have been excluded. Thus, creating a distance-learning

program for training more qualified adapted PE teachers is imperative [7].

In 2010, the first distance-learning program for training qualified adapted PE teachers created at Western Michigan University (WMU) was federally funded. This federally funded distance-learning program has been implemented for five years from 01/01/2011 to 12/31/2016, including a no-cost extension year, through delivering courses in a distance-learning approach with tuition free to all students enrolled in this program [7]. Has this first federally funded distance-learning program been effectively implemented in preparing qualified adapted PE teachers over the five years? The purpose of this paper was to describe the effectiveness of this federally funded distance-learning program based on quantitative data collected over the five years.

## 2. Method

The distance-learning program for the master's degree in adapted PE at WMU was federally funded by USDE in the 2010 competition for a total of five years from 01/01/2011 to 12/31/2015, in which a one-year no-cost extension was included. Over these five years, a total of 54 students were recruited and enrolled in this program. These students were prepared with three unique ways characterized in this federal funded distance-learning program. Three of these unique ways are presented below.

The first way was the program of study. The program of study in the federally funded distance-learning program, as presented in Table 1, included 12 courses for a student to complete for earning a master's degree in adapted PE. All students were required take 2 core courses, 3 adapted PE courses in the area of specialization, 2 elective courses, and 2 capstone courses. However, a student with a PE background was required to take 3 special education (SE) courses in the area of specialization, while a student with a SE background was required to take 3 PE courses in the area of specialization (see Table 1).

The program of study presented in Table 1 was primarily designed based on competencies specified in Michigan Rule 97 [8]. This rule required a student to complete a minimum of 20 credit hours leading to the acquisition of 18 competencies and a practicum of not less than 60 hours in adapted PE. The above program of study also integrated competencies based on Adapted Physical Education National Standards (APENS) since the competencies in the APENS [9] were similar to those in the Michigan Rule 97.

However, the APENS required a trainee to complete a practicum of not less than 200 hours before being eligible to take the APENS exam. A student was therefore required to complete 200 practicum hours, not 60 hours, in taking HPHE 7120 so that this student would be eligible to take this exam upon completion of the program of study.

Table 1. The Program of Study Created in the Federally Funded Distance-Learning Program in Adapted PE Field for Master's Degree at WMU

Course Number	Course Title	Credit Hours
Core Courses (6 credit hours)		
HPHE 6900	Research Method	3
HPHE 6920	Analytical Techniques	3
Area of Specialization (18 credit hours)		
HPHE 6210	APE for Exceptional	3
HPHE 6220	Programming in APE	3
HPHE 6250	Assessment in APE	3
SPED 5300 <sup>1</sup>	Introduction to SE	3
SPED 6380 <sup>1</sup>	Behavior Analyses	3
SPED 6610 <sup>1</sup>	Collaborations	3
HPHE 6410 <sup>2</sup>	Teaching Skills in PE	3
HPHE 6420 <sup>2</sup>	Motor Development	3
HPHE 6450 <sup>2</sup>	Curriculum in PE	3
Elective Courses (6 credit Hours)		
HPHE 6420	Motor Development	3
HPHE 6430	Motor Learning	3
HPHE 6910	Mental Training	3
HPHE 6930	Sociology of Sport	3
Capstone Courses (6 credit Hours)		
HPHE 7100	Independent Study	3
HPHE 7120	Field Experience	3

<sup>1</sup> = Courses for a student with PE background to take;

<sup>2</sup> = Courses for a student with SE background.

The second way was the delivery of courses. The program of study presented in Table 1 has been delivered in a two-year format using a distance-learning approach over the five-year funding period. As presented in Table 2, each student was required to take two courses in each of the fall and spring terms in the first year, and one course in each of the summer I and summer II terms in the second year. Of the 12 courses, as presented in Table 2, 10 courses were delivered online through the e-learning program at WMU and 2 courses were taken in a traditional way (i.e., face-to-face) at a local college or university. Since all students were able to transfer the grades earned in taking two traditional courses in this student's local area to WMU, all students were able to complete the program of study in a distance-learning way without showing up at WMU.

Ten online courses specified in Table 2 have been offered by the use of online course delivering method through the e-learning system managed by the Extended University Program (EUP) at WMU. This e-learning system uses Desire2Learn, the university's central learning management system, to offer courses online [10]. All instructors involved in the program have been trained and certified to teach courses online using Desire2Learn through training programs implemented by EUP. All students were trained how to use those technical skills to perform e-learning activities in Desire2Learn through the online video-driven program developed by EUP.

Table 2. Two-Year Format Used for Delivering All 12 Courses in a Distance-Learning Approach

PE Background	SE Background	Term/Year	Delivery Method
HPHE 6210	HPHE 6210	Fall/1	Online
SPED 5300	HPHE 6400 <sup>1</sup>	Fall/1	Online
HPHE 6220	HPHE 6220	Spring/1	Online
SPED 6380	HPHE 6410	Spring/1	Local
SPED 6610	HPHE 6430 <sup>1</sup>	Sum I/1	Local
HPHE 6250	HPHE 6250	Sum II/1	Online
HPHE 6900	HPHE 6900	Fall/ 2	Online
HPHE 6420 <sup>1</sup>	HPHE 6420	Fall/2	Online
HPHE 6920	HPHE 6920	Spring/2	Online
HPHE 7120	HPHE 7120	Spring/2	Online
HPHE 6450 <sup>1</sup>	HPHE 6450	Sum I/2	Online
HPHE 7100	HPHE 7100	Sum II/2	Online

<sup>1</sup> = one may select another elective course to take.

The quality of delivering each of the online courses was ensured based on the WMU E-learning Course-level Criteria [11]. These criteria defined the elements that were required to present in online courses. WMU also incorporated quality-oriented requirements in the faculty contract that defined formats of e-learning and the processes that were adhered to in order to develop and launch any fully online courses. All online courses were delivered based on the WMU E-learning Standards, which included quality assurance, course management system, hosting, technical support, distance education course development, instructor support and training, student support, and administrative standards. The quality of online instruction offered through the e-learning system was thus ensured based on the WMU E-learning Standards [11].

The third way was the quality of practicum. As presented in Table 2, all students were required to take HPHE 7120 for complete their practicum hours in the spring term. Since each student was required to find a local school or setting to complete the field experience, HPHE 7120 was taken in the spring so as to allow students the chance to complete practicum in schools while schools were open. Students who were living close to WMU completed practicum hours at the WMU adapted PE lab and at a local school closed to WMU. Students who were not living close to WMU completed 200 practicum hours at an adapted PE lab and school in their local areas. Each student's practicum was completed the practicum hours under the supervision of a qualified adapted PE teacher. This qualified adapted PE teacher might be (a) endorsed by their state's department of education, (b) certified by the National Consortium for Physical Education for Individuals with Disabilities (NCPEID), or (c) a college or university professor specializing in adapted PE.

Four resources have been used for students to locate certified adapted PE teachers to assist with the practicum requirement. A certified adapted PE

teacher might be located using (a) the practicum network established by the HPHE 7120 instructor, (b) the list of certified adapted PE teachers posted on the APENS website, (c) the list of adapted PE professors in universities posted on the NCPEID website, and (d) a student's personal knowledge of adapted PE teachers in this student's local area. The quality of a student's practicum experience were then be ensured in a systematic approach in three stages over 15 weeks during a spring term.

The preparation stage was completed in the first three weeks. At the end of week 1, a student completed a Practicum Setting Form. At the end of week 2, a trainee completed a Qualified Supervisor Form. At the end of week 3, a trainee completed the Practicum Plan Form. These documents were electronically mailed to the instructor weekly.

The conduction stage was completed over the next ten weeks. During these weeks, each student completed 200 practicum hours, which was documented in a Weekly Practicum Form to be completed by the student on a weekly basis. These completed forms were emailed to the HPHE 7120 instructor at the end of each week from the fourth week to the thirteenth week.

The conclusion stage was completed during the last two weeks. At the end of week 14, each student completed the practicum report. By the end of week 15, the student's supervisor was required to prepare an official letter evaluating the student's performance and documenting the student's practicum hours. This letter was signed by the supervisor and emailed to the HPHE 7120 instructor directly from the supervisor.

### 3. Results

The effectiveness of this program was evaluated based on the results of four measures. The four measures and their results are presented here. The first measure was the percentage of students who exited the program prior to completion of the program of study or did not complete the program of study at the end of the funding period. Over the five-year funding period, 3 students exited the program prior to completion of the program of study and 3 students did not complete the program of study at the end of the funding period. These results revealed that 11% (6/54) of students exited this program prior to complete the program of study and did not complete the program of study before the end of the funding Period [12].

The second measure was the percentage of students who obtained professional competencies required in the MI Rule 97 and the APENS. Since all professional competencies required in the MI Rule 97 and the APENS were addressed in 12 courses in the program of study used in the distance-learning program, the mean of GPA earned by each

student over 12 courses was used to identify if a student obtained professional competencies. During the five-year funding period, 89% (48/54) of the students earned a mean of GPA equaling to or greater than 3.0 at the end of program of study [12].

The third measure was the percentage of students who were fully qualified as adapted PE teachers with receiving adapted PE approvals after completion of the program of study. Based on the data collected in the WMU registrar office, a total of 48 students who enrolled in the distance-learning program completed all 12 courses with a mean GPA equaling to or greater than 3.0 during the five-year funding period. This result indicated that 89% (48/54) of students were fully qualified to teach adapted PE classes in schools through receiving adapted PE approvals at the end of the program of study [12].

The fourth measure was the percentage of students who were satisfied with the distance-learning program. Each student completed a survey with a total 15 questions in a 5-point scale on each question at the end of the program of study. The result of this measure was a mean score of 4.22 over all 15 questions completed by all 54 scholars during the five years. This mean score indicated that 84% (4.22/5.00) of the students satisfied that those standards required for adapted PE teachers were addressed in the program of study used in the distance-learning program [12].

#### 4. Discussion

The results found from the above four measures revealed that the percentage of students exiting the program prior to completion and did not complete the program on time was insignificant (11%), while the percentage of students completing the program on time was significant (89%) since 89% of the students obtained competencies required in the MI Rule 97 and the APENS and were qualified to teach adapted PE classes in schools with receiving adapted PE approvals, and the percentage of students satisfying with the distance-learning program was significant (84%). These results indicated that the federally funded distance-learning program was effective in preparing qualified adapted PE teachers.

#### 5. Conclusion

The findings obtained in this study indicate that qualified adapted PE teachers can be effectively prepared through a distance-learning program. Our students who have completed our distance-learning program, however, commented that our distance-learning program would have not delivered 83% of the courses (10/12) online and 17% (2/12) of the courses in a traditional way in a local college or university; instead, all courses in our program of study should be completely delivered online. Starting

in the summer II of 2016, therefore, the distance-learning program for the master's degree in adapted PE at WMU will deliver all 12 courses online.

#### 6. References

- [1] D. Auxter, J. Pyfer, L. Zittel, and K. Roth, *Principles and Methods of Adapted Physical Education and Recreation*, McGraw-Hill, New York, NY, 2010.
- [2] C. Shrrill, *Adapted Physical Activity, Recreation, and Sport: Crossdisciplinary and Lifespan*, McGraw-Hill, New York, NY, 2004.
- [3] J.M. Dunn, and C.A. Leitschuh, *Special Physical Education*, Kendall/Hunt Publishing Company, Dubuque, Iowa, 2015.
- [4] U.S. Department of Education, *To Assure the Free Appropriate Public Education of all Children with Disabilities: Thirty-Seventh Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*, U.S. Department of Education, USA, 2015.
- [5] J. Zhang, L. Kelly, D. Berkey, D. Joseph, and S. Chen, "The Prevalence-based Need for Adapted Physical Education Teachers in the United States", *Adapted Physical Activity Quarterly* 17(3), Human Kinetics, 2000, pp. 297-309.
- [6] J. Zhang, *Preparation of Qualified Adapted Physical Education Teachers with a Quality Distance Learning Program*, the Department of HPHE, Western Michigan University, Kalamazoo, MI, 2016.
- [7] U.S. Department of Education, *Fiscal Year 2017 Application for New Grants under Individuals with Disabilities ACT*, U.S. Department of Education, USA, 2016.
- [8] Michigan Department of Education, *Michigan Administrative Rules for Special Education*, Michigan Department of Education, MI, 2013.
- [9] Adapted Physical Education National Standards, Certified Adapted Physical Educator [Web log post], 2015, Retrieved from <http://www.apens.org/certification.html>.
- [10] Desire2Learn Resource Incorporate, *Desire2Learn Center* [Web log post], 2016, Retrieved from <https://elearning.wmich.edu/shared/Documentation/10.3/Instructor/en.1.html>
- [11] Extended University Program, *E-learning Course-level Criteria and E-learning Standards*, Western Michigan University, Kalamazoo, MI 2016
- [12] J. Zhang, *Final Grant Performance Report to U.S. Department of Education*, Department of HPHE, Western Michigan University, Kalamazoo, MI 2016.