

*Predictors of Intention to Provide Quality  
Physical Education and Recreation Services  
to Student with Disabilities*

**Thea Kavanaugh  
New Mexico State University**

**Student Research Brown Bag Seminar**

**October 5, 2017**

# Objectives

- Share experiences developing a primary research study
  - 1<sup>st</sup> stage: Topic, Literature review, Committee, Research Questions, Hypothesis, Theoretical Models, and Prospectus
  - 2<sup>nd</sup> Stage: Proposal, IRB Process
  - 3<sup>rd</sup> Stage: Sample Identification, survey development,
  - 4<sup>th</sup> Stage: Survey Distribution
- Next Steps
- Lessons Learned
- Implications/Potential Impact

# 1<sup>st</sup> Stage

Developing a Topic  
Literature Review  
Committee

Research Questions  
Hypothesis  
Theoretical Model

Spring  
2016-  
Spring  
2017

Preparedness of Recreation Therapists for Service Delivery  
on of Self-Efficacy and Attitudes to Intention and Comp

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## Topic Development

- Professional Experience
- MPH 579 - Research and Resources in Community Health

Background	Purpose	Hypotheses/ Results
people with ID is one of the potential barriers to... ...to this group. Most research on attitudes... ...the medical model of care, are attitudes of... ...spines. There is considerable need therefore for... ...that draw directly on the attitudes and... ...intellectual and physical disabilities (ID)... ...sport opinion.	This paper describes the development of an Attitudes to Disability Scale for use with adults with physical or intellectual disabilities (ID). The aim of the research was to design a scale that could be used to assess the personal attitudes of individuals with other physical or ID.	...factor in their success at integrating... ...efficacy beliefs are an important, and... ...component of the beliefs that influence... ...integration and that particular instruc... ...might be effective for increasing self-... ...relevant to behavior intention.
...adverts with ASD in physical education is... ...ers have continued to express varied and... ...toward the practice of inclusion. In general... ...that educators have more positive attitudes... ...toward teaching children with ASD than... ...teaching those with	The current study aimed to examine the beliefs and self-reported behaviors of GPE teachers' inclusion of students with ASD. *National Random Sample	We aimed to provide a description of teachers' beliefs and self-reported behavior including students with ASD, and, see the potential factors affecting their behavior. * Teachers' behavior was the dependent variable. We hypothesized that teachers with more positive beliefs toward teaching children with ASD would have more positive attitudes toward teaching those with

## Literature Review

- Sample Population
- Theory
- Instruments
- Methods
- Results
- Recommendations for future research

Self-Efficacy, Motivation and Professional Preparedness as Predictors of Intentionality Physical Education and Recreation Services to Students with Disabilities

A Graduate Thesis Prospectus  
Submitted to the faculty of  
The Department of Public Health  
New Mexico State University

## Identify Thesis Committee Chair

- Brainstorm/Sell Idea
- Identify Committee
- Prospectus
- Prospectus Defense



# Background

## Students with Disabilities (ages 6-21)

- 8.7% of US students
- Approximately 45,422 students in New Mexico
- Diagnostic categories

## Existing Literature:

- Lack of or limited access to quality PE and recreation services
- PE pre-service teachers and PE teachers
- Limited research sampling other qualified professionals who provide PE and recreation services.
- Lack of elevated standards of professional prerequisites that adequately support and advance the provisions of quality physical education and recreation services to students with disabilities

## Federal Law

- Equal Rights
- Highly Qualified Personnel

## Recommendations:

- Further development of quantitative examinations investigating predictive relationships between teachers' training and behavior
- Inquiry into the preservation of self-efficacy beliefs extending throughout teacher preparation and into his/her career

## Physical Education and Recreation Services in New Mexico:

### ➤ Physical Education:

Physical Education (PE) Teacher

Adapted Physical Education (APE) Teacher

### ➤ Recreation Services (as a related service)

Recreational Therapist (RT)

Among NM school personnel with differing levels of professional preparedness and who deliver physical education or recreation services to students with disabilities:

- How does level of professional preparation affect behavioral intentions to provide quality physical education or recreational services?
- How does psychosocial factors such as attitudes, self-efficacy, and motivation influence behavioral intentions to deliver quality physical education or recreation services?
- How does level of professional preparedness influence the psychosocial factors (i.e., attitudes, self-efficacy, and intrinsic/extrinsic work motivation) affecting behavioral intentions to provide quality physical education and recreation services?

# Hypothesis

**Hypothesis 1:** NM school personnel with more professional preparedness in disability-related content will report more positive attitudes, higher self-efficacy, and greater motivation towards working with students with disabilities than personnel with lower levels of professional preparedness.

**Hypothesis 2:** NM school personnel who report greater positive attitudes, higher self-efficacy, and higher motivation will have greater perceived behavioral intention to provide quality services to students with disabilities than personnel who report lower levels of these qualities.

# 2<sup>nd</sup> Stage Proposal IRB Submission

Summer 2017

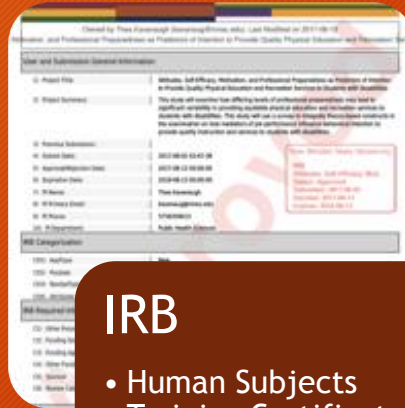
Professional Preparedness of Recreation Therapists for Service Delivery in the S  
Examination of Self-Efficacy and Attitudes to Intention and Competence.

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Research and Resources in Community Health

## Proposal

- Proposal-Drafts/Revisions
- **Final Proposal**
- Proposal Defense



## IRB

- Human Subjects Training Certificate
- **Submission**
- *Survey Instrument*
- *Recipient Letters*
- **Amendment**
- **Approval**

**NM STATE UNIVERSITY** Office of Research Compliance  
Comments for submission 15390

Owned by Thea Kavanaugh (kavanaugh@nmsu.edu). Last Modified on 2017-07-28  
ation, and Professional Preparedness as Predictors of Intention to Provide Quality Physical Education and Recreation Services

Comments on original submission

**General submission comments:**

**Comments for question 28:**  
The survey has many questions (77), stating that it will only take 20 minutes to complete is mis-leading. Please provide a more accurate estimate of time needed to complete the survey.  
Few-Notification email indicates that the survey will take 30 minutes to complete. Please correct this discrepancy.

**Comments for question 57:**  
Please provide contacts to answer questions that participants may have about their rights as research subjects. (The DVPR office should be listed to answer questions about their rights as research subjects.)

**NM STATE UNIVERSITY** Office of the Vice President for Research  
INSTITUTIONAL REVIEW BOARD (IRB)  
Dr. Ralston St. Hilaine, Chair  
MBC 2100  
New Mexico State University  
P.O. Box 3001  
Las Cruces, NM 88003-8001  
Phone: 575-646-7177 Fax: 575-646-2480  
Email: ovpr@nmsu.edu

DATE: August 13th, 2017  
FROM: The Office of Research Compliance  
TO: Thea Kavanaugh  
Other: Kimberly Oliver  
Other: Ernesto Morales  
Other: Joseph Yamada  
Department Head: Anup Amalaya

SUBJECT: Decision Memo for Application #15390

Project Title: Attitudes, Self-Efficacy, Motivation, and Professional Preparedness as Predictors of Intention to Provide Quality Physical Education and Recreation Services to Students with Disabilities  
Application Type: New  
Review Type: Expedited  
Approval Period: August 13th, 2017 - August 13th, 2018  
Patent Application: Review Category: 7

The NMSU Institutional Review Board Chair, Dr. Ralston St. Hilaine, has reviewed and approved the above application for the conduct of research involving human subjects.

The application was reviewed in accordance with the review process outlined in 45 CFR 46.110(b)(1) - Category 7.

The research must be conducted according to the proposal/protocol that was approved by the IRB. Any changes in the research, instruments, or the consent document(s) must be submitted to the IRB prior to implementation. Additionally, any unexpected hazards or adverse events involving risk to the subjects or others must be reported immediately to the IRB, using the appropriate form, within the time frame specified in the NMSU Policies and Procedures for the Conduct of Research Involving Human Subjects.

Please note that the IRB approval is valid for only one (1) year. Pursuant to federal regulations, the IRB must review and approve all research protocols involving human subjects at intervals appropriate to the degree of risk, but no less than once per year. Therefore, in order to continue your project after the above approved period, you must submit a request for continuation 45 days prior to the above referenced expiration date.

Note: Data collected during a period of lapsed approval is unapproved research and can never be reported or published as research data.

If you should have any questions, please do not hesitate to contact the Office of Research Compliance at 646-7177 or via e-mail at ovpr@nmsu.edu.



# 3<sup>rd</sup> Stage

# Population Instrumentation Procedure

Fall  
2017  
August-  
Current

Q1.2 Are you currently working in NM Public Schools?

Yes (1)

No (2)

Q1.3 What classes or services do you currently provide?

Physical Education (1)

Adapted Physical Education (2)

## Population

- Identification of Sample
- IRB Modification



Q1.2 Are you currently working in NM Public Schools?

Yes (1)

No (2)

Q1.3 What classes or services do you currently provide?

Physical Education (1)

Adapted Physical Education (2)

## Instrumentation

- Qualtrics
- IRB Modification



Created Date	Link Expiration
29 Sep 2017 1:18 PM MDT	28 Nov 2017 1:18 PM MST
29 Sep 2017 11:52 AM MDT	28 Nov 2017 11:52 AM MST
29 Sep 2017 10:27 AM MDT	28 Nov 2017 10:27 AM MST

## Procedure

- IRB Approval
- Survey Distribution

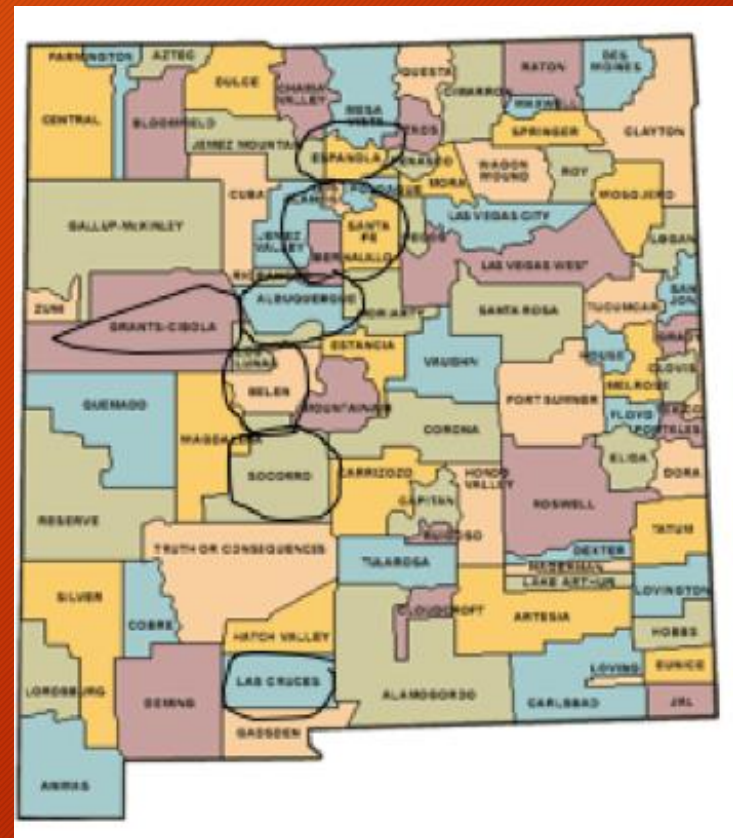


# Sample Population:

NM school personnel currently providing physical education or recreation services to students with disabilities (ages 6-22) in NM public schools.

Anticipated  
Total  
n = 140

- Estimation based on current available data
  - There are 89 school districts including approximately 784 schools
  - APE teachers (n=57) and RTs (n=33) in NM
  - Random sample schools from districts that employ either RT or APE personnel (n=50).
  - Anticipated sample total will be 140 participants.



# Final Sample: Survey Recipients

Total  
Sample  
n = 239

## Adapted Physical Education Teachers & Recreational Therapists

1. Request of public records from NM Public Education Department ([Request](#))
2. Number of FTE Staff by District ([NMPED Document](#))
3. Called every school to identify contact info of FTE staff (either APE, RT or both)
4. Total Sample; n = 60
  - APE: n = 44 (estimated n = 57)
  - RT: n=16 (estimated n = 33)

## Physical Education Teachers

- Identification of districts employing APE and/or RT
- Identification of elementary, middle, and high schools in districts (elementary: n=186; middle: n= 56; high = 46)
- IRB Modification Submission
  - Simple Random Sample (30 each)
  - Update/Changes to Survey Questions
- Random Sample via [Excel Software](#)
- School Website Search
- Called Schools for PE Contact Info
- Total Sample; n = 179
  - Elementary: n = 42
  - Middle: n = 54
  - High: n = 83

# Survey Design

## Four Disability Categories in Survey:

1) Intellectual Disability, 2) Multiple Disabilities, 3) Emotional Disturbance, 4) Autism

[Definition of Terms](#)

### *Demographics:*

- Gender,
- Age,
- Job title,
- Level of Education,
- Academic Degree,
- Type(s) of Certification,
- Grade level of students,
- Setting where students with disabilities are served,
- Number of students with disabilities expected to serve during the 2017-2018 school year

### *Professional Preparedness:*

- Number of formal courses (undergraduate and graduate) completed specific to: a) adapted physical education, b) special education, c) therapeutic recreation, and d) disability-specific course;
- Number of years working with children with disabilities;
- Personal Experiences with people with: a) intellectual disabilities, b) multiple disabilities, c) emotional disturbance, d) autism
- Formal practicum experience working with individuals with disabilities (undergraduate and graduate);
- Number and sources of informal and formal professional development/in-service training opportunities in the past 18 months with disability specific-content.

2 Open Ended Questions



# Survey

## 1. Literature Review:

- Variables:
  - Attitudes
  - Self-Efficacy
  - Intention
  - Motivation
  - Professional Preparedness
- Theory-based Research/Instruments
  - Theory of Planned Behavior (TPB)
  - Self-Efficacy Theory (SET)
  - Self-Determination Theory (SDT)
- Validity & Reliability

## 2. Contacted Authors of Publications

- Research Gate
- Find contact info on institution websites

## TPB: Attitudes & Intention

- Attitudes Toward Disabled Persons (ATDP) –Adapted from the *Attitudes Toward Disabled Persons (ATDP) Scale, Form O* (Yuker, Block & Younng, 1970) Public Domain
- Physical Educators' Judgments about Inclusion Instrument (Hodge, Murata, & Kozub, 2002) Provided by author, Hodge, S. on 3/29/17
- Examining Physical Education Teachers' Intentions and Behaviors for Including Students with Autism in General Physical Education Classes (Beamer & Yun, 2014) Provided by author Beamer, J. on 2/17/17
- Physical Educators' Intention Toward Teaching Individuals with Disabilities (PEITID-III) (Tripp & Rizzo, 2006) Provided by author Rizzo, T. on 2/16/17
- **Teachers' Beliefs and Intentions toward Teaching Students with Disabilities (TBITSD) scale** (Jeong & Block, 2011) Provided by Block, M.E. on 6/30/17

## SET: Self-Efficacy & Intention

- **Physical Educators' Self-Efficacy Toward Including Students with Disabilities-Autism (PESEISD-A scale)** (Taliaferro, Block, Harris, & Krause, 2011; Taliaferro, Hammond & Wyant, 2015) Provided by author, Taliaferro, A. on 3/16/17
- Self-Efficacy Scale for Physical Education Teacher Education Majors towards Children with Disabilities (SE-PETE-D) (Block, Hutzler, Barak, & Klavina, 2013) Provided by author Block, M.E. on 5/24/17
- Teachers' Sense of Efficacy Scale (long form or short form) (Tschannen-Moran & Woolfolk, 2001) Public Domain
- Bandura's Instrument Teacher Self-Efficacy Scale. (Bandura, 2006) Public Domain

## SDT: Motivation

- Why Do You Do Your Work? (Tschannen-Moran & McMaster, 2009) Public Domain
- **The Situational Motivation Scale (SIMS)** (Guay, Vallerand, & Blanchard, 2000) Public Domain



# Qualtrics

- Survey book
- IRB Maestro Submission #1
  - Word Version of Survey
- IRB Maestro Modification #2
  - Parameters of data
  - Updated Survey using Qualtrics
- Distribution

- ☰ Distribution Summary
- 🔗 Anonymous Link
- ✉ Emails
- 🔗 **Personal Links**
- 📱 Social Media
- 📄 Offline App
- 📄 QR Code
- 👤 Purchase Respondents

**NM STATE** New Mexico State University

Directions: This survey is designed to examine the factors affecting your intentions and behaviors to provide quality physical education or recreation services to students with disabilities, specifically students with autism, students with intellectual disabilities, students with emotional disturbances, and students with multiple disabilities.

There are no right or wrong answers, and every school personnel will answer these questions differently. You have been provided with an individual link to this survey which will allow you to save and return to finish the survey at another time by bookmarking your last completed page.

For a point of reference, see the [Definition of terms](#)

By clicking the next page arrow button, I am providing my consent as a willing participant in this research study. I also understand that upon entering the survey, my name will be entered in a drawing for 1 of 10 Amazon Gift Cards, each at a value of \$20. The winners will be selected randomly via computer generated software. The drawings will occur three days following the closure of the survey. The gift cards will be distributed to all winning participants no later than December 20th. I also understand that if I choose to withdraw from participating in the research study, I will remain as an eligible entry for the drawing.

**NM STATE** New Mexico State University

Are you currently working in NM Public Schools?

Yes  
 No

<< >>

**NM STATE** New Mexico State University

**General Instructions:** Please slide the tab to the number that corresponds best with your beliefs and opinions.

I intend to teach students with \_\_\_\_\_ in my physical education class or in recreation services. (fill in the blank with the following disability types)

Unlikely 1 2 3 4 5 6 7 Likely

Autism

Intellectual Disability

Emotional Disturbance

Multiple Disabilities

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I intend to teach students with \_\_\_\_\_ in my physical education class or in recreation services. (fill in the blank with the following disability types)

Unlikely 1 2 3 4 5 6 7 Likely

Autism

Intellectual Disability

# 4th Stage

## Survey Distribution Data Collection

Fall 2017

Sept 15 -  
Nov 3

A four-round schedule will be used for distribution of survey collection modes including:

- 1) Initial e-mail pre-notification of study;
- 2) Distribution of survey via e-mail (postal mail for bounced e-mail recipients or recipients who request mailed surveys);
- 3) a thank you for participation or follow up e-mail reminder to participate in survey will be sent to all participants; and
- 4) a follow up e-mail or post card reminder to encourage participation in survey prior to closure

### Incentives

- Increase response rate
- Evokes a sense of reciprocal obligation

#### Personal Links

Contacts	Created Date	Link Expiration	Links	Surveys Started	Surveys Finished	
PE High	29 Sep 2017 1:18 PM MDT	28 Nov 2017 1:18 PM MST	82	74	1	⚙️
PE Middle	29 Sep 2017 11:52 AM MDT	28 Nov 2017 11:52 AM MST	55	54	4	⚙️
PE Elementary	29 Sep 2017 10:27 AM MDT	28 Nov 2017 10:27 AM MST	42	42	5	⚙️
1st Sample-RT/APE Personnel	15 Sep 2017 3:55 PM MDT	14 Nov 2017 3:55 PM MST	59	59	26	⚙️

Showing 1-4

### Completion Rates

PE High = 1% completion rate  
PE Middle = 7% completion rate  
PE Elementary = 11% completion rate  
RT = 46% completion rate  
APE = 41% completion rate  
Total = 16 % completion rate

# Next Steps:

## Data Collection Data Analysis

Fall 2017 -  
Spring 2018  
November -  
January

- Transfer data from Qualtrics to SPSS
- Record all response rates
- Code for responses including misrepresented responses
  - Example: On average, what is the number of students with disabilities you are expected to serve from 2017-2018 school year?
    - 30+
    - Approximately 40
    - 50-75
- Missing value analysis
- Internal-consistency reliability
- Screening for univariate and multivariate outliers
- Check the assumption of equal variances
- Correlational research design
  - Descriptive statistics to analyze participant characteristics including frequencies, percentages, and means
  - Inferential statistics may include confidence intervals, correlation, analysis of variance (ANOVA), and regression analysis

# Lessons Learned

- Time Intensive
- Topic of Interest
- Learning Experience - No regrets!
- Revisit sample population
- Reformat data parameters for some of my survey questions
- Quality physical education and recreation services
- Report bias
  - 1) this study does not observe school personnel's actual behavior to deliver quality services to students with disabilities but predicts behavior based on self-report behavioral intention; and
  - 2) self-report of attitudes and self-efficacy may not be representative of the participant's actual beliefs and behavior toward students with disabilities.



# Implications/Potential Impact

- Inform state policy committees, school districts, and school administrators who make decisions on hiring and supporting the development of highly qualified personnel.
- Provide justification for continuing education opportunities and for higher education curriculum development to improve professional preparedness in working with students with disabilities.
- Contribute to the research literature on education of students with disabilities, including services provided by APE and RT personnel.

# Thank you

Thesis Committee: Dr. Tomaka, Dr. Moralez, Dr. Oliver

Sponsored by: Southwest Institute for Health Disparities Research