

PSYCHOMETRIC VALIDATION OF THE PHYSICAL EDUCATORS' JUDGMENTS OF
INCLUSION IN ANGOLA

A DISSERTATION

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

IN THE GRADUATE SCHOOL OF THE

TEXAS WOMAN'S UNIVERSITY

SCHOOL OF HEALTH PROMOTION AND KINESIOLOGY

COLLEGE OF HEALTH SCIENCES

BY

AGUEDA MARIA FLORES GOMES, M.S.

DENTON, TEXAS

AUGUST 2023

Copyright © 2023 by Agueda Gomes

DEDICATION

I dedicate this dissertation to my late father, Alexandre Herculano Gomes, and my mother, Dorville Maria Hendricks Flores Gomes, for their invaluable influence on my life. They instilled in me the most important values of respect, honesty, hard work, and perseverance that have enabled me to reach this significant milestone in my life. They encouraged and cultivated my love of physical activities from an early age.

I also dedicate this dissertation to my Heavenly Father, my Savior Jesus Christ, my dissertation committee, my family, and my friends. Without their unwavering love, support, encouragement, and guidance, this achievement would not have been possible.

I also dedicate my Lobito community for their influence and for helping me to develop my passion for sports and physical activities, especially Coach Ferreira (swimming), Coach Cristina Leite Velho (gymnastics), Coach Seixas (basketball), Coach Bertelin Nelson (team handball), and Coach Daniel (athletics).

Lastly, I dedicate this work to all individuals with disabilities in Angola, who have been my source of inspiration throughout my journey.

ACKNOWLEDGMENTS

First and foremost, I express my heartfelt gratitude to my Heavenly Father and Savior, Jesus Christ, for the love, support, and comfort I have received throughout this academic journey.

I am indebted to the numerous individuals who generously supported and encouraged me to complete this dissertation. I wish to extend my sincere appreciation to all my professors, colleagues, family, friends, and institutions who contributed to this achievement. Your unwavering support made my very big dream a reality.

I extend my heartfelt thanks to my dissertation committee, Dr. Suzanna Rocco Dillon, Dr. Lisa Silliman-French, Dr. Mark Mann, and Dr. Karen Dunlap, for their invaluable advice, guidance, and encouragement throughout the entire process. I am incredibly grateful to my dissertation chair and mentor, Dr. Suzanna Rocco Dillon, for her steadfast support and commitment, without which this dissertation would not have been possible. I am forever grateful to her for helping me become a better researcher and pushing me out of my comfort zone every day. I am grateful to Dr. Lisa Silliman-French, who worked closely with me throughout my doctoral process and provided me with guidance, even during unconventional hours. I am also thankful to Dr. Mark Mann for his early guidance and direction that set me on my path, for his support, and for how much I have learned throughout my Ph.D. program. I thank Dr. Karen Dunlap for her guidance and support through this process and for how much she contributed to expanding my knowledge and vision related to assessment in the classroom. I want also to acknowledge all the professors who were part of my journey for their support and experiences that added to my knowledge, such as Dr. Rebecca Fredrickson, Dr. Ludovic A. Sourdout, Dr. Amanda Hurlbut, Dr. Mandy Biggers, Dr. Amy Burke, and Dr. Lisa Rosen.

I would like to express my thanks to the faculty and staff from the School of Health Promotion and Kinesiology of Texas Woman's University that directly and indirectly have been supporting and helping me to reach this point of my academic program, Dr. George King, Dr. Barabara Barnick-Ben-Ezra, Dr. Mindy Menn, Dr. Joshua Gold, Dr. Kerri Staples, Dr. Michelle Ferrer, Dr. Rhet Rigby, Mrs. Janelle David, Mr. Jason Torres, and Mrs. Brenda Watson.

I also want to thank my previous committee member and professor, Dr. David Nichols, for his patience and teachings which enabled my understanding of the discipline of statistics so that I could use this knowledge in developing the final project for my doctoral program. I would also be remiss if I did not recognize Dr. Claudine Sherrill's role in my journey at TWU. Without Dr. Sherrill's unwavering support, I would never have completed my Master's degree or pursued this doctoral degree that will help to change so many lives in my country, Angola. Although she is no longer with us, her impact on me and many others will continue to live on in our work. I am proud to be one of those who will continue her legacy, and I will pay her support forward.

I want to also express my gratitude to former professors from Texas Woman's University. I am grateful to Dr. Ron French, my previous TWU advisor for his guidance, encouragement, and support not only throughout my master's program but also during my Ph.D. program and his help tremendously contributed to getting to this point in my academic life. I would also like to thank Dr. Sinah Louise Goode for introducing me for the first time to the research world which helped me to realize how much I needed to learn. I am also grateful for the early guidance from the late Dr. Carol Huettig for her passion, patience, and support in helping me grow academically. I am also thankful to Dr. Jean Pyfer for her encouragement and support throughout my graduate program.

I also want to acknowledge my professors from my undergraduate program at the University of Sao Paulo for cultivating the idea that I should specialize in adapted physical activity. My thanks to Dr. Elizabeth de Mattos for introducing me to the area of adapted physical activity and for her support and friendship throughout this period. I thank Dr. Júlio Cerca Serrão very much for pushing and helping me in the beginning stage of developing a course of study that ultimately affected my entire graduate program.

I wish to acknowledge and appreciate the support services provided by Texas Woman's University (TWU) that made this dissertation possible. My heartfelt thanks go to TWU's Library for their readiness and availability whenever I needed their services. I am especially grateful to one of the librarians, Ms. Elaine Cox, for her commitment and support and for all her effort in helping me with the literature review, in spite of the lack of literature specific to Angola in the field of adapted physical education.

I am grateful for the invaluable assistance provided by the Center for Research Design and Analysis (CRDA) of Texas Woman's University, especially Dr. Paul Yeatts, whose guidance and support were instrumental in completing this dissertation. I also appreciate TWU's Write Site for their assistance during the initial stages of my dissertation. I want to acknowledge and thank TWU's International Student & Scholar Services for their excellent service throughout my time at TWU. I am also grateful for the excellent service from the TWU Technology Service that help me throughout my Ph.D. program.

I sincerely appreciate my colleague, Dr. Qin Yang Latchman, for her support throughout my academic life until my dissertation. My special thanks to Mrs. Noelle Ratliff, Facility Supervisor from Pioneer Hall, for her unwavering support during my time at TWU. I also thank my colleagues from Pioneer Hall for their support throughout my program. A special thanks to

Dr. Beth Palmer for her support, encouragement, and help in getting me to this point of my dissertation.

I am grateful to the National Institute for Scholarship Management of the Ministry of Higher Education of Angola for their financial support, which contributed to this significant milestone in my academic career. I would like to acknowledge the late former Minister of Higher Education, Dr. Adão do Nascimento, for inviting me and supporting me in this big step in my academic career. I am also thankful to TWU for the scholarships that provided me with much-needed additional support throughout my Ph.D. program.

I wish to express my gratitude to the Ministry of Education of Angola for allowing me to pursue this academic journey. I want to express my thanks to the former Minister of Education, Dr. Pinda Simão, for allowing me to continue my education. I also want to thank the former Director of the National Institute for Research and Development of Education, Dr. David Chivela, for his support in continuing my education. I also extend my appreciation to the National Institute for the Evaluation and Development of Education and the National Institute for Special Education of Angola for their support. I would like to acknowledge Sr. Afonso Almeida, Dr. Roger Mufua, Dr. Pedro Agostinho, Dr. Andrea Oatanha, Dr. Luciano Lucas, Dr. Lauriano Sobrinho, and Dr. Diasala André for their support and effort in translation, validation, and collaboration in data collection. I thank all teachers, participants in this investigation, and those that directly and indirectly collaborated for it to happen. I also want to acknowledge Eng. Julieta Octávio, Mrs. Alice Henrique, Mrs. Avelina Silvestre António, Dr. Luzia Gama, Dr. José Fazenda, and Dr. Pedro Fernandes for their support and encouragement.

I also want to extend my thanks and appreciation to the Angolan sports family for the impact they had on me and their part in my development. I want to acknowledge the Angolan

Paralympic Committee and the Angolan Basketball Federation for allowing me to develop projects for the development of sports for individuals with disabilities, which helped me to have a more profound vision of their actual needs in terms of adapted physical activities. My association with organizations like these made me realize that I needed to improve my knowledge and research skills to serve this population better.

I want to express my gratitude to the International Federation of Adapted Physical Activity (IFAPA) for the support of its members throughout the years and for helping me to realize that I had much to learn, which ultimately, propelled me to further my education and pushed me to complete my studies. My goal has always been to be able to share what I've learned in this process with the people of Angola. It is my desire to put my skills and knowledge to work to improve adapted physical education in Angola.

I want to acknowledge and thank all my Denton friends who became my American family. They were instrumental in my personal and academic journey, and their support throughout this period will never be forgotten. I'm so very thankful to Suzanna and David Dansby for their financial support, care, friendship, and encouragement throughout the time it took to complete my dissertation. Without their support, I could not have reached this point. They really helped me "put the icing on top of the cake," and I am forever in their debt. I am also grateful to the Reeves Family - Marilyn, Glenn (posthumously), and Jeff - for their support, friendship, encouragement, and help any time I needed it. I also would like to thank Dr. Anna Cox for her support and friendship, which I greatly appreciate.

I want to thank my friends, Donna and Jean Pierre Obenda, for their encouragement, support, and friendship throughout this period. I'd also like to give a very special thanks to my teacher and friend, Karen Liroy, for her language support, friendship, encouragement, help, and

guidance throughout my academic journey. I want to thank Patty Wager for her support and friendship in getting to this point. I would also like to extend my sincere appreciation to my friends, Barabara Hefka, Barbara Jones, and Kristan Taylor, for their support, encouragement, and friendship. My thanks to Donna Howard for her support and friendship through these years. I also want to thank Yvonne Mballa for her companionship, friendship, and support during my Ph.D. Program.

I am very thankful to Kaki Matheson and her son, Alex Matheson for their love, support, help, and friendship. My heartfelt thanks to Patricia Diers for her support, encouragement, and friendship. I also want to express my gratitude to Sue Welch and her family for their friendship and support. I am also grateful to Mahasin See for her encouragement and friendship since the beginning of my Ph.D. program.

Finally, I would like to express my extreme gratitude to all my brothers and sisters from the Church of Jesus Christ of Latter-day Saints from the ex-First Ward and Pecan Creek Ward from Denton Stake for their support, assistance, and kindness throughout this process.

My Denton family and friends were indispensable in my journey, but I also want to acknowledge my Angolan friends and families who supported me from afar. To my Angolan friends and family, I want to express my deepest gratitude to the whole Assis and Africano family, especially Dr. Eduardo Pereira Africano (posthumously), Eng. Albina Assis Africano, Rosa Pereira Africano (posthumously), for their support, help, friendship, encouragement, and unconditional love. I am also grateful to the Matos family, especially Dr. Elisabeth Matos, for their unconditional love, encouragement, support, and friendship. I also am thankful for the support, encouragement, and goodwill of Laurentina dos Santos and Mário Santos. I need to thank the Gago Family, Claudeci and Miguel, for their unconditional love, support, and

friendship throughout this process. I appreciate all my friends for their unconditional love, encouragement, and friendship, especially Guilhermina Amaro, Paula Fernandes, Zélia Silva, Dulce Ernesto, Conceição Mesquita, Conceição Bravo, Sónia Barros Rego, Carla Carvalho Duarte, Monica Ramos da Cruz, Paula Viegas, Festo Issac, Rosa Coelho, Margarida Fernandes, Maria Helena Fontainhas, Mary Sousa, Albertina (Tina) Sousa Saraiva, Riquita Sampaio, Júlio Caxito (Cia), Rosa Pina, Marisa Pina, Madalena Veiga, Jorge Santos, Edelzita “Zita” Veiga, Victorino Mussoque e Clarisse Chaves that closely followed my academic journey.

Finally, I am grateful for the support of my family. I thank my brothers, Alcino Gomes, Deomotércio Silva, Victor Silva, Joaquim Ramos, Aléctor Silva, Adonai Gomes (posthumously), Alécio Gomes, Adjuto Gomes, Adelina Gomes, and their wives and children for their love, support, and encouragement. I am also thankful to all my nieces and nephews, especially Alexandre Gomes e Irineia Gomes, for their love, care, and support. I am also grateful to all my cousins, specifically those who followed me closely Herminia Clington Gomes Lima, Wanda Flores Pereira, Carlos Flores Pereira “Bob,” Ana Pilar Flores Sena Brito Ribeiro, Hoji-Ya-Henda Flores Gourgel, Rosa Flores Costa Carvalho, Sandro Flores, Eda Machado Seixas, Eda Gomes, and Vitor Rodrigues (posthumously) for their love, support, and encouragement throughout this period. A special thanks to my aunts and uncles, Magnólia Hendricks Flores, Edda Gomes Machado, Vasco Soares Machado, Adjuto Gomes, and António Gomes, for their love, encouragement, and support throughout my academic journey.

I want to express special gratitude and acknowledge my dear mother for her love, care, and encouragement. Her belief in me has always been unwavering and has gotten me to where I am today. Finally, I would also like to express my appreciation to my husband, Pedro João dos Santos, for his love, patience, and encouragement throughout my Ph.D. program.

ABSTRACT

AGUEDA GOMES

PSYCHOMETRIC VALIDATION OF THE PHYSICAL EDUCATORS' JUDGMENTS OF INCLUSION IN ANGOLA

AUGUST 2023

The purpose of this study was to examine the psychometric properties of the Physical Educators' Judgments about Inclusion in Angola (PEJI-A). Originally developed by Hodge et al. (2002), the Physical Educators' Judgments about Inclusion (PEJI) evaluates physical educators' judgments concerning "cognitive expressions of attitudes" related to inclusion of students with disabilities in general physical education settings (p. 435) and consists of 16 items divided among three subscales: (a) inclusion versus exclusion, (b) acceptance of students with disabilities, and (c) perceived training needs. The pre-existing PEJI instrument was translated and evaluated using a three-phase process that involved: (a) translating of the PEJI instrument from English to Portuguese as spoken in Angola (i.e., PEJI-A), (b) establishing evidence of face and content validity of the PEJI-A, and (c) investigating the reliability and construct validity of the PEJI-A. Data were collected from 237 elementary classroom and secondary physical education teachers from three Angolan provinces using a demographic questionnaire and the PEJI-A. Based on the results of the reliability analysis, Exploratory Factor Analysis, and Pearson correlation analysis, the present version of the Physical Educators' Judgments about Inclusion in Angola, inclusive of all three subscales, does not demonstrate evidence of reliability and validity because the first subscale of the PEJI-A (specific to the dimension of inclusion) was not deemed to be reliable or valid. It appears that the PEJI-A needs to be revised with items that better measure the constructs of inclusion consistent with the Angolan educational context. Despite the statistical constraints of the PEJI-A related to subscale 1, it does show promise as a much-needed

tool to investigate physical education for students with disabilities in sub-Saharan Africa and address the preservice and in-service training needs of physical educators that are well-documented in the literature.

Keywords: inclusion, physical education, students with disabilities, judgements

TABLE OF CONTENTS

DEDICATION	x
ACKNOWLEDGMENTS	ii
ABSTRACT	x
LIST OF TABLES	xvi
LIST OF FIGURES	xvii
I. INTRODUCTION	1
Education in Angola	1
Early Special Education in Angola	1
History of Education in Angola	2
Present Day Education in Angola	4
Physical Education in Angola	5
Investigating Physical Educators' Judgments About Inclusion in Angola	7
Significance of the Problem	8
Purpose of the Study	9
Research Questions	9
Research Hypotheses	10
Delimitations	10
Limitations	11
Assumptions	11
Definition of Terms	12
II. LITERATURE REVIEW	14
Review of the Relevant Literature	14

Scoping Review of Literature Specific to Inclusion in Sub-Saharan Africa	14
Identifying the Research Questions for Scoping Review	16
Identifying Relevant Literature.....	17
Investigation Selection.....	17
Charting the Data	19
Collating, Summarizing, and Reporting the Results.....	26
Consultation From Librarian.....	26
Inclusion in Sub-Saharan Africa.....	26
Students With Disabilities’ Perceptions Related to Inclusive Education	26
School Personnel’s Perceptions Related to Inclusive Education.....	27
Research Instruments Related to Inclusion in Physical Education	32
Identifying Relevant Literature.....	32
Physical Education Instruments.....	33
Methodologies for Validation of a Cross-Cultural Translated Instrument	37
Identifying Relevant Literature.....	37
Procedures for Validating a Cross-Cultural Translated Instrument	37
Estimating Sample Size	41
Reliability.....	42
Validity	42
Summary	44
III. METHODOLOGY	46
Multi-Phase Validation Process.....	46
Research Questions.....	46

Phase I: Translation of the Instrument	48
Purpose and Design of the PEJI.....	48
Translation of the PEJI Into the PEJI-A	51
Development and Translation of the Demographic Questionnaire.....	53
Phase II: Establishing Face and Content Validity of the PEJI-A.....	53
Back Translation PEJI-A Instrument	56
Challenges to Establish Face and Content Validity	57
Phase III: Main Study	57
Participants and Sampling Procedures.....	57
Research Design and Instrumentation	59
Data Collection	59
Data Analysis	60
IV. RESULTS.....	63
Demographic Information.....	63
Participants.....	63
Reliability.....	64
Construct Validity	65
Descriptive Analysis of the PEJI-A	65
Correlational Relationship Among Scores on PEJI-A Instrument Dimensions	69
Exploratory Factor Analysis	69
Analysis of PEJI-A Dimensions Based on Gender and Educational Background	69
Analysis of PEJI-A Dimensions Based on Teaching Experience.....	70
Summary	71

V. DISCUSSION	72
Discussion of the Findings.....	72
Research Question 1: Evidence of Reliability	72
Research Question 2: Evidence of Construct Validity	74
Implications for Future Investigations	82
Limitations	84
Conclusions.....	85
REFERENCES	86
APPENDICES	
A. Demographic Questionnaire in English and Portuguese.....	111
B. PEJI-A in Portuguese	115
C. Letters of Support From Ministry of Education of Angola.....	119
D. Institutional Review Board Approval	123
E. Consent Form Approved by TWU IRB.....	124

LIST OF TABLES

1. Angolan Population of School-Aged Students With Disabilities	5
2. African Research Related to Inclusion	19
3. Seminal Instruments Developed to Investigate Inclusion in Physical Education.....	36
4. Guidelines for Validation of a Cross-Cultural Translated Research Instrument	39
5. PEJI Items Organized by Subscale (Adapted From Hodge et al., 2015).....	50
6. Comparison of Reliability Coefficients for PEJI's Subscales by Country	65
7. Psychometric Indices for the PEJI-A by Subscale.....	66
8. Factor Analysis for Dimensions of Inclusion Represented in the PEJI-A.....	67

LIST OF FIGURES

1. Scoping Review Process According to the PRISMA-ScR Guidelines Using the PRISMA Checklist and PRISM 2020 Flow Diagram (Page et al., 2021).....	15
2. Representation of the Methodological Phases	47
3. Development of the PEJI-A for the Main Study: Steps of the Translation Procedures.....	51
4. The PEJI-A Validation Process for Establishing Face and Content Validity	54

CHAPTER I

INTRODUCTION

In 2017, adapted physical education (APE) was officially introduced in Angola's education system through the Executive Decree number 305/17 in article number 33 at the Internal Regulations of the National Institute of Special Education (Diário da República, 2017). This executive decree was a milestone official document related to providing physical education services to the children and young with disabilities in the education system of Angola. As such, the inclusion of students with disabilities in physical education is still a new concept in the history of the Angola's general and special education systems.

Education in Angola

Early Special Education in Angola

Since the independence of Angola in 1975, the education of individuals with disabilities has transitioned from exclusive and segregated education into a more inclusive model (Ministério da Educação, 2006), and has been affected by national and international moments of its history. Located in Africa's sub-Saharan region, Angola is one of Africa's largest nations located on the central west coast; and like other African countries, was a European colony of Portugal for centuries. During this period of colonization, special education was not well established and students with disabilities were excluded from the educational system (Ministério da Educação, 2006). A few years before Angola gained independence, Oscar Ribas, a teacher and writer, began educating children and youth with visual impairments and began special education programming in Angola (Charles et al., 2020). It was a crucial moment for the education of individuals with disabilities, as the schools moved from exclusion to access to education through segregated settings.

In 1979, 4 years after the independence of Angola, special education was formally created as a new modality of the Ministry of Education through a law titled, Circular number 56/79 of October 19 of the Ministry of Education (Diário da República, 2017; República de Angola, 1979). This legislation, which serves as the legal cornerstone for the formal education of individuals with disabilities in Angola's educational system (Chambal et al., 2015), led to the opening of the first special education school and opportunities for students to be educated in separate but comparable environments with students with similar educational needs. The first special education school, located in the province of Luanda (capital of Angola), served primarily students with visual and hearing impairments. It was not until years later did the educational system begin to provide such opportunities to students with intellectual disabilities (Ministério da Educação, 2006). In 1980, the National Department for Special Education was created to oversee special education in Angola through the Decree-Law number 40/80 of May 14 (Ministério da Educação, 2006; Presidência da República, 1981). This decree-law included special education under the auspices of the Organic Statute of the Ministry of Education, which sets the national public education policy, which was at this time still segregated (Diário da República, 2017).

History of Education in Angola

While the first steps for implementing and organizing special education for individuals with disabilities were occurring, Angola was also emerging from a nearly three decade long civil war (South African History Online [SAHO], 2018). The civil war (1975 to 2002) not only impacted the country's political, social, and economic institutions but also dramatically affected the lives of many people, including children. During the civil war, it is estimated that more than 50,000 children perished, 500,000 children were infected by diseases or acquired a disability, and countless many lost their immediate family members across the 18 provinces of Angola

(Camara, 1998). As a result, in 1992, an emergency education program was developed to address the special educational needs of these children. The program, Project 534/Ang/10, was funded by the Italian government and implemented with the support of the United Nations Educational, Scientific, and Cultural Organization (UNESCO; Camara, 1998), with the goal of rehabilitating and educating of these vulnerable children (UNESCO & Ministério da Educação, 1994).

During the same decade, UNESCO released the World Declaration on Education for All, which stated, “. . . education is a fundamental right for all people, women, and men, of all ages, throughout our world” (UNESCO, 1990, p. 6). Article number three of the Declaration calls for equal opportunities to primary education for all children, youth, and adults, including those with disabilities, by removing discriminatory attitudes and educational disparities, ensuring access to and improving the quality of academic service (UNESCO, 1990). Prompted by the World Declaration on Education for All, Angola started to expand special education throughout the country (Ministério da Educação, 2006). In addition, the Salamanca statement and framework for actions on special needs education, also well known as the Salamanca Declaration (UNESCO & the Ministry of Education and Science of Spain, 1994) was adopted by the Angolan government in 1994 (Diário da República, 2017).

The Salamanca Declaration established that traditional schools must serve all learners independent of their ability, including children with disabilities (UNESCO & the Ministry of Education and Science of Spain, 1994). The Salamanca Declaration reaffirmed previous United Nations’ human rights declarations that every child has a right to education according to their unique attributes and learning needs in the general education classroom and declared that students with disabilities should be educated in an inclusive environment with their peers without disabilities to the greatest extent possible (UNESCO & the Ministry of Education and Science of

Spain, 1994). The Salamanca Declaration opened a new paradigm of education for individuals with disabilities all over the world by moving from segregated education to inclusive education.

Present Day Education in Angola

Due in large part to the Salamanca Declaration, Project 534/Ang/10 was revised, and a new paradigm emerged in Angola, reflecting that all individuals with disabilities should be included in regular classrooms (i.e., general education; Diário da República, 2017). This change in national policy triggered an increase in special education activities across the country, including the promotion and preparation of trainers to deliver the special education professional development and instructional support across the provinces of Angola. Activities also included increased access to primary education resources centers to support inclusive education, teacher training, and disability awareness (Camara, 1998). The paradigm shift toward inclusive practices was also supported by Presidential Decree number 20/11, article number 1, which mandates special education as one of the modalities (i.e., services) implemented across all elementary and secondary schools in Angola (República de Angola, 2010; República de Angola, 2001). In addition to the general education schools, Angola special education schools for students with severe disabilities require one-to-one services and pedagogical support (Ministério da Educação, 2006). The inclusion of students with disabilities in general education is determined according to the severity of the student's disability with students with less severe disabilities enrolled in general schools, and students with more severe disabilities attending special education schools.

Responding to the significant changes that occurred between 1970 and 2001 in the educational system, the Angolan government also enacted the Basic Law of the Educational System - Law number 13/01 of December 31 (República de Angola, 2001) that mandated (a) the schooling of all children and youth regardless of disability, religion, or ethnicity as a measure to

increase literacy, (b) improvements to the professional qualifications of teachers, and (c) improvements to educational resources available to Angolan teachers (Diário da República, 2017). Finally, and specific to the rights of individuals with disabilities, the Angolan government enacted Law number 21/12 of July 30 of 2012 (Diário da República, 2012), which protects the rights of people with disabilities at all levels of society (República de Angola, 2016). This landmark piece of legislation seeks to serve the approximately 660,000 Angolans with disabilities (2.5% of Angolan population) resulting from the long civil war, a lack of resources in the health system, and congenital or acquired factors (Camara, 1998; República de Angola, 2016). It has also contributed to a 50.4% increase of students with disabilities (i.e., 2004 to 2011) in Angola's schools (República de Angola, 2015). The most updated Angolan population report of individuals with disabilities by the Angolan government (Instituto Nacional de Estatística, 2014) is presented in Table 1.

Table 1

Angolan Population of School-Aged Students With Disabilities

Age	Percentage of population represented by individuals with disabilities
0 - 14	25%
15 - 24	17%

Physical Education in Angola

In the education system of Angola, students with disabilities have the right to participate in physical education. Physical education is one of the educational subjects in the national educational curriculum in Angola and is taught across all levels of the general education system

in accordance with education laws (República de Angola, 2001, 2010). Physical education is an important subject that promotes knowledge, health behaviors, well-being, physical fitness, and the active lifestyle of individuals (Society of Health and Physical Educators of America SHAPE, 2022; World Health Organization [WHO], 2020). As identified by numerous authors (e.g., Agyar, 2013; Akelaitis & Malinauskas, 2016; Andersen et al., 2011; Carlson et al., 2008; Cesa et al., 2014; Fairclough & Stratton, 2005; Murcia et al., 2009; Trigueros et al., 2019), the benefits of physical education include but are not limited to (a) physiological development (e.g., increase cardiovascular and muscular endurance, flexibility, agility, motor coordination); (b) psychological wellness (e.g., increase self-esteem, self-determination, motivation); (c) development of a health-enhancing lifestyle (e.g., decrease obesity, diabetes, blood pressure); (d) social development (e.g., increase cooperation skills, social adaptation, communication skills); and (e) cognitive development (e.g., improve academic achievement, increase mental alertness).

Despite the benefits physical education provides, physical education is an academic subject that is not delivered by a professional specializing in physical education at all levels of the general education system in Angola. In elementary school, physical education is taught by a classroom teacher who has specialized in pedagogy or psychology, not in physical education. In secondary school, physical education is delivered by a teacher who has a high school diploma in physical education from a teacher training school (i.e., high school specializing in teacher education in specific subjects). As such, not all physical education teachers in Angola have a diploma in physical education. In addition, the existing physical education teacher training schools do not have a curriculum in APE. So, most physical education teachers graduate without the knowledge and skills needed to educate students with disabilities. Research on teachers'

knowledge, attitudes, and judgments about teaching physical education to students with disabilities, as well as teacher education specific to APE is greatly needed in Angola.

Investigating Physical Educators' Judgments About Inclusion in Angola

Judgments have been studied in the field of physical education to understand the experience of physical education teachers working with students with disabilities in the inclusive physical education environment (Folsom-Meek et al., 1999; Haegele et al., 2020; Hodge et al., 2015; Hodge et al., 2013; Hodge, Davis, et al., 2002). The term judgment is defined as the ability to form an opinion or using beliefs in decision-making based on prudent thought (Hodge, Murata & Kozub, 2002). Hodge, Murata and Kozub (2002) contextualized the meaning of the term judgment(s) based on the work of key behavioral theorists (Ajzen, 2001; Allport, 1954).

Judgment is also considered to be a cognitive process that is expressed through attitude (Ajzen, 2001). The term attitude refers to an evaluation of the concept, object, or behavior aligned with the dimensions of good or bad, favor or disfavor, and like or dislike (Ajzen & Fishbein, 2000). In the process of evaluation, individuals make judgments through the different dimensions (Ajzen & Fishbein, 2000). For example, before teaching students with disabilities, most prospective physical education teachers form unfavorable opinions or beliefs about teaching and including those students in their classroom (Hodge & Jansma, 2000; Kudlák et al., 2002). This attitude of the teachers is defined as a prejudgment (Allport, 1954; Hodge, Murata, & Kozub, 2002).

Prejudgment is a judgment that is formed before the individual knows the facts, which is considered a prejudice (Allport, 1954). As an example, prejudgment becomes prejudice when physical educators do not reverse or revise their attitude after acquiring new knowledge or experiences. Lieberman et al. (2002) and Hodge, Davis, et al. (2002) suggest that a physical

educator who has never had the opportunity work with or learn about students with disabilities may develop negative/prejudiced opinions about teaching and including students with disabilities in physical education, with prejudice being related to beliefs and attitude (Allport, 1954). Beliefs are what individuals rationally accept as true for them, so prejudices may remain the same or shift as beliefs shift (Allport, 1954). Hence it follows that when physical educators are exposed to a practicum experience working with students with disabilities in their early career, they may move from less favorable prejudgments to more positive judgments because of working with those students. With the purpose to study judgments, Hodge and colleagues developed the Physical Educators' Judgments about Inclusion (PEJI; Hodge, Murata, & Kozub, 2002) to investigate in-service physical education teachers' judgments about the inclusion of students with disabilities in the general education environment.

Significance of the Problem

There are many factors, such as religion, ethnicity, culture, and socioeconomic factors that prevent countries from providing adequate services to students with disabilities in an inclusive educational setting (Charles et al., 2020; Heck & Block, 2020; Onyewadume, 1999). This is particularly true in Angola and other countries across sub-Saharan Africa (Butakor et al., 2020; Charles et al., 2020; Chireshe, 2011; Simui et al., 2019). Unfortunately, there is a dearth of literature examining the status of inclusion in general physical education in Angola for students with disabilities.

In response to the lack of literature on this topic, a study was conducted in 2021-2022 to identify the perceptions of Angolan special education administrators and Angolan students with disabilities specific to the inclusion of students with disabilities in general physical education (Gomes et al., 2022). While this study addressed administrators and students, it was devoid of

the perceptions or judgments of physical educators about the inclusion of students with disabilities in physical education settings in Angolan general education schools. Identification of the judgments of elementary and secondary teachers qualified to teach physical education is critically needed to understand the current situation in Angola as they are the professionals directly responsible for providing physical education to students with disabilities. A deeper understanding may also provide a roadmap for developing new policies and teacher education strategies that improve the quality of physical education instruction for all students. Direct measurement of these teacher judgments required the translation of the Physical Educators' Judgments of Inclusion (Hodge, Murata, & Kozub, 2002) into Angolan Portuguese and validation methods to ensure the new Physical Educators' Judgments of Inclusion in Angola is suitable for use.

Purpose of the Study

The translation and establishment of the PEJI-A as a valid instrument is critical to future studies on the judgements of in-service and pre-service physical educators regarding the inclusion of students with disabilities in physical education in Angola. Therefore, the purpose of this investigation is to examine the psychometric properties of PEJI-A.

Research Questions

Consistent with the research design for this study, two research questions guided this study.

1. Does the Physical Educators' Judgments of Inclusion in Angola demonstrate evidence of reliability?
2. Does the Physical Educators' Judgments of Inclusion in Angola demonstrate evidence of construct validity?

Research Hypotheses

In addition to the research questions, two research hypotheses were tested statistically. The research hypotheses are presented below along with the corresponding null hypotheses.

H₁: There is evidence of reliability for the Physical Educators' Judgments of Inclusion in Angola items with scores demonstrating acceptable reliability (Cronbach's $\alpha \geq .70$).

H₀: There is no evidence of reliability for the Physical Educators' Judgments of Inclusion in Angola items with scores not demonstrating acceptable reliability (Cronbach's $\alpha \leq .70$).

H₂: There is evidence of construct validity for the Physical Educators' Judgments of Inclusion in Angola items within each of the three factors (i.e., inclusion, acceptance, training needs).

H₀: There is no evidence of construct validity for the Physical Educators' Judgments of Inclusion in Angola items within each of the three factors (i.e., inclusion, acceptance, training needs).

Delimitations

The study has the following delimitations:

1. Portuguese language translators, who translated Physical Educators' Judgments of Inclusion items related to physical education, are not experts in the field of physical education.
2. Participants in this study are elementary teachers and secondary physical education teachers from urban schools in the provinces of Luanda, Benguela, and Huila. Their judgments may not be representative of teachers from all provinces of Angola.

3. There are no publications related to physical education teachers' opinions, attitude, and perceptions about physical education provide to the students with disabilities in the Educational System of Angola.
4. There exists a lack of Angolan experts in adapted physical education available to participate as committee members in the evaluation of the Physical Educators' Judgments of Inclusion in Angola instrument.

Limitations

The study has the following limitations:

1. Participants may not complete all the items of the Physical Educators' Judgments of Inclusion in Angola instrument.
2. Participants may not be truthful or authentic in their answers.
3. Some participants may not fully understand the questions addressed in the Physical Educators' Judgments of Inclusion in Angola.
4. Some participants may not appear at the survey site during the scheduled time.
5. The participant sample may have gender disparity. In secondary schools in Angola, there may be more male physical education teachers than female teachers. In elementary schools in Angola, there may be more female classroom teachers than male teachers.
6. Interpreting the results cautiously if the principal investigator (PI) does not get a minimum of 200 participants.

Assumptions

This study has the following assumptions:

1. The potential participants of the elementary and secondary schools selected for this investigation participated without any financial remuneration.

2. The participants were motivated to participate in the study and to complete the PEJI-A.
3. Participants in this investigation were representative of the population of physical education teachers in Angola.
4. Participants' scores were normally distributed.

Definition of Terms

In the context of this study, terms selected are defined as follows:

1. Angola: Angola is a country located in Africa's sub-Saharan region, specifically in the Southwest region of Africa. Angola is bordered to the west by the Atlantic Ocean, to the south by Namibia, to the east by Zambia and the Democratic Republic of Congo, and to the north by the Democratic Republic of Congo and the Republic of Congo. Angola is a multicultural country with approximately 35 million inhabitants. Angola's official language is Portuguese (attributed to the period of Portuguese colonization from 1576 until the independence of Angola in 1975), though there are approximately 50 native languages spoken in the country.
2. Inclusion: Inclusion is an educational philosophy that individuals with disabilities should be educated in the environment with students without disabilities as much as possible with their needs supported with appropriate services (Karagiannis et al., 1996; UNESCO & the Ministry of Education and Science of Spain, 1994).
3. Physical education: Physical education “is an academic subject that provides a planned, sequential, K-12 standards-based program of curricula and instruction designed to develop motor skills, knowledge, and behaviors for healthy, active living, physical fitness, sportsmanship, self-efficacy and emotional intelligence” (SHAPE America, 2015, p. 3).

4. Psychometric properties: The intrinsic components of a survey instrument used to measure social and psychological phenomena (Cordier et al., 2017). Psychometric properties identify and define the critical aspects of the instrument (Crocker & Algina, 2008; DeVellis & Thorpe, 2022).
5. Students with disabilities: Based on the Individuals with Disabilities Education Act (IDEA), students with disabilities are children “having an intellectual disability, a hearing impairment including deafness, a speech or language impairment, a visual impairment, a serious emotional disturbance, an orthopedic impairment, autism, traumatic brain injury, learn disabilities, deaf-blindness, or multiple disabilities, or other health impairments that require special education and related services” (2022). This definition was selected because the PEJI was developed using terminology from the United States.
6. Teachers’ judgments: Teachers' judgments are the teachers' ability to evaluate their beliefs and attitudes toward a concept (e.g., toward inclusion of the students with disabilities) through the dimensions of agree or disagree, desired or non-desired, or like or dislike (Allport, 1954).

CHAPTER II

LITERATURE REVIEW

Review of the Relevant Literature

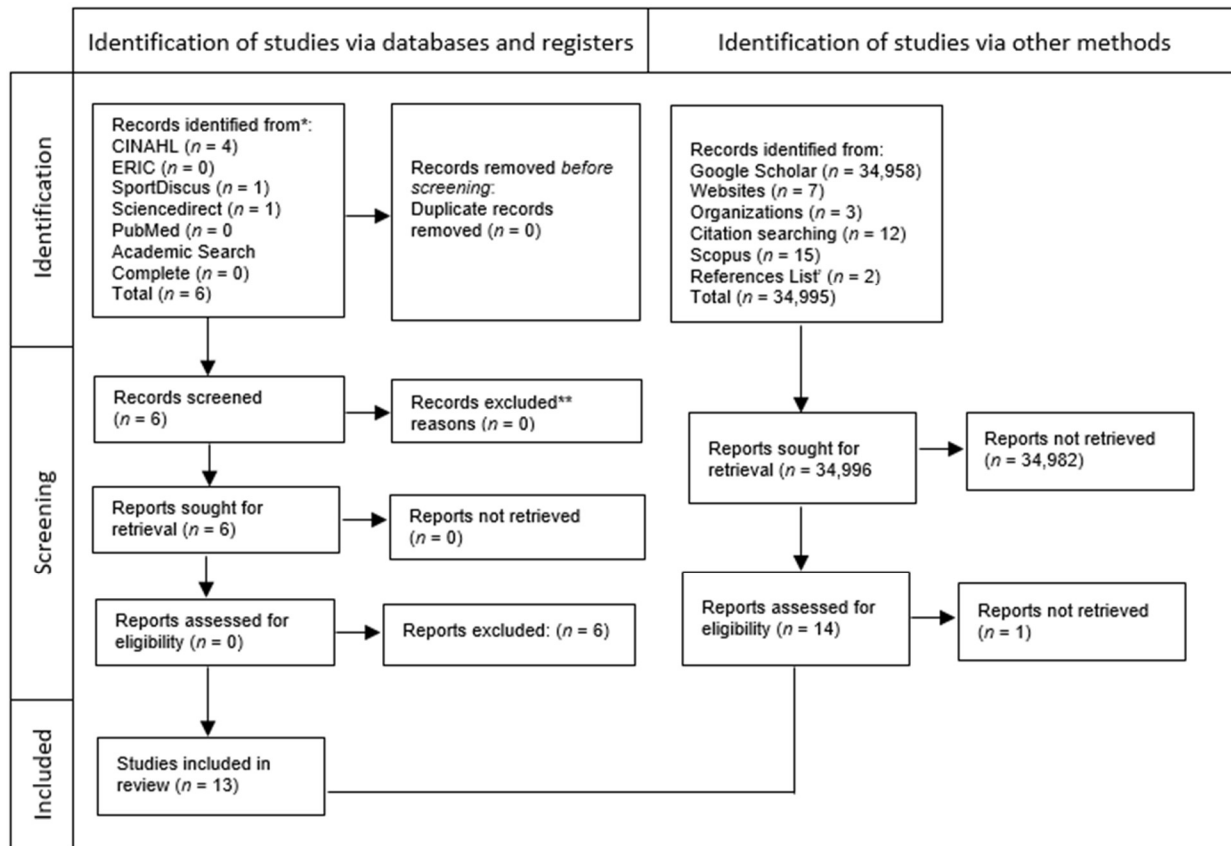
This review of the literature is divided into three sections addressing literature relevant to the current study. The first section addresses what is known about inclusion in sub-Saharan Africa. The second section provides a review of the instruments designed to investigate the status of the inclusion of students with disabilities in physical education. The third and last section provides an overview of best practices in validation of a cross-cultural translated instrument, with specifics on the instrument that was used in the current study.

Scoping Review of Literature Specific to Inclusion in Sub-Saharan Africa

The primary purpose of the scoping review was to investigate issues related to the inclusion of students with disabilities in physical education in Angola (see Figure 1). Following investigations of the literature across multiple different databases, the researchers determined that literature about the inclusion of students with disabilities in physical education in Angola was insufficient for a literature review. As a result, the search of the literature was expanded to encompass sub-Saharan Africa, as well as what was known about the inclusion of students with disabilities in general education systems, not just in physical education.

Figure 1

Scoping Review Process According to the PRISMA-ScR Guidelines Using the PRISMA Checklist and PRISM 2020 Flow Diagram (Page et al., 2021)



Note. From: “The PRISMA 2020 Statement: An Updated Guideline for Reporting Systematic Reviews,” by M. J. Page, J. E. McKenzie, P. M. Bossuyt, I. Boutron, T. C. Hoffmann, C. D. Mulrow, et al., 2021, *BMJ*, 372(71) (<https://doi.org/10.1136/bmj.n71>). Copyright 2021 by The BMJ Publishing Group.

*Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/registers).

** If automation tools were used, indicate how many records were excluded by a human and how many were excluded by automation tools.

A scoping review, which was conducted for this literature review, is a research methodology used to provide a comprehensive search of literature on a topic that provides answers to a broad set of research questions (Tricco et al., 2018). The literature review methodology applies inclusion and exclusion criteria to allow focused, rigorous analysis leading to a beneficial knowledge synthesis of that literature (Tricco et al., 2018). Arksey and O'Malley (2005) stated that scoping studies allow researchers to build in-depth knowledge of the nature of what is available in the literature according to the purpose of their research.

To conduct a methodologically sound scoping review, authors recommend a methodological framework that provides six stages with a specific criterion to guide the process. The six stages, which were followed for this study, are: (a) identifying the research question, (b) identifying relevant studies, (c) studying the literature selection, (d) charting the data, (e) collating, summarizing, reporting the results, and (f) consulting (Arksey & O'Malley, 2005; Colquhoun et al., 2014).

Identifying the Research Questions for Scoping Review

The research questions are the beginning point of a scoping review that leads all steps of the search strategy (Arksey & O'Malley, 2005). The research questions provide the essential keywords or terms to be searched in the literature. For this study, the research questions that guided the scoping review are: (a) What are the perceptions of special education administrators in sub-Saharan Africa regarding physical education for students with disabilities across sub-Saharan Africa? (b) What are the perceptions of special education administrators in sub-Saharan Africa regarding the status of inclusion of students with disabilities in general physical education classes across sub-Saharan Africa? (c) What are the perceptions of students with disabilities in sub-Saharan Africa regarding the status of inclusion of students with disabilities in

general physical education classes across sub-Saharan Africa? and (d) How do the perceptions of administrators compare to the perceptions of students with disabilities regarding the inclusion of students with disabilities in physical education?

Identifying Relevant Literature

The search process for identifying relevant studies was performed from August to October 2021. The principal investigator collaborated with a librarian from Texas Woman's University to identify appropriate databases. Databases selected for the study included CINAHL (EBSCOhost), ERIC (EBSCOhost), Academic Search Complete (EBSCOhost), SportDiscus (EBSCOhost), ScienceDirect, PubMed, and Scopus. These databases are related to the fields of physical education, physical activity, sports, and the health sciences. Besides these databases, potential studies were also identified through searching Google, Google Scholar, websites, and reference lists, as well as hand searches.

Investigation Selection

Investigation selection occurred over multiple steps. In the process of searching for articles, it was crucial to define search concepts and the appropriate terminology and then to identify specific search terms that cover the concepts and reflect those definitions to retrieve articles that apply to the research questions (Arksey & O'Malley, 2005; Colquhoun et al., 2014). For instance, multiple terms related to disabilities were tested: disabled, deficient, special needs, paralytic, crippled, handicapped, the person in a wheelchair, mental disability, mental retardation, blind, deaf, autism spectrum disorder, and poliomyelitis. After the concepts were defined and potential search terms were tested, the following search English and Portuguese terms were determined to be useful: Angola, sub-Saharan Africa, inclusion, physical education,

students with disabilities, administrators, educação física, alunos com deficiência, África Subsariana, percepção, and administradores.

After determining the relevant search terms, the inclusion and exclusion criteria were identified. The inclusion and exclusion criteria were based on the research questions and were related to the characteristics or the nature of the population (Stern et al., 2014). The investigators limited the search to English and Portuguese languages because English is the primary language in the field of adapted physical education, and Portuguese is the official language in the Republic of Angola. The publication date range was limited to 2010 through 2021. Publication types included journal articles, editorials, books, websites, and government documents. The study excluded videos, opinions, letters, social media, as well as the French and Spanish languages.

Once databases, search terms and inclusion/exclusion criteria were identified, the search strategy was executed in all databases and search results were documented on the PRISMA Flow Diagram. The original database searches retrieved six articles with no duplicates. After screening titles and abstracts, none were excluded, leaving six full-text articles sought for retrieval. All six full-text articles were retrieved and evaluated based on relevance to the research questions and inclusion and exclusion criteria. All six articles were determined to be ineligible because they were not related to Angola or sub-Saharan Africa. Fortunately, literature discovered through the investigation of reference lists and through citation mapping and pearl growing (also known as citation mining or snowballing) led to the identification of 34,996 additional articles. The identified articles were screened, and 34,982 were not retrieved. After screening titles and abstracts of the articles, 14 were determined to be eligible based on relevance to the research questions and on inclusion/exclusion criteria.

Charting the Data

A total of 14 articles were determined to be appropriate for inclusion in the literature review; however, one article was not available for retrieval. The remaining 13 articles that were determined to be eligible for inclusion and available for retrieval were included for final analysis. The 13 articles are summarized, with data charted, in Table 2 below.

Table 2*African Research Related to Inclusion*

#	Author(s)	Year	Country(s)	Purpose	Participants	Research method(s)	Findings
1	Mpu & Adu	2021	South Africa	To highlight the main challenges in the implementation of inclusive education in South Africa schools.	Nine educators from private, mainstream, and special schools.	Qualitative - Case study analyses through interpretive approach	Educators from South Africa face challenges, including a lack of training, knowledge, and skills. Further overcrowding made teaching in inclusive education classrooms difficult. Researchers recommended that inclusive education accommodate all learners regardless of any disability.
2	Mtonga et al.	2021	Zambia	To establish the learning experiences of learners with albinism in both regular and special schools.	Learners with albinism, school administrators, parents of learners with albinism, organizational representatives ($n = 20$).	Qualitative - Interpretative Phenomenology	Students with albinism did not feel welcomed by their peers and teachers in traditional school environments. The main issues were stereotypes, negative attitudes, and hostile behaviors. In contrast, students were more accepted and could interact with other students and teachers in special school environments.

#	Author(s)	Year	Country(s)	Purpose	Participants	Research method(s)	Findings
3	Basha & Van Heerden	2020	Ethiopia	To explore the profile and opinion of people with disability in Ethiopia, with respect to physical activity participation.	Individuals with visual impairments and limb disabilities, who were 15 to 50 years old, and from Ethiopia ($n = 334$).	Quantitative method - descriptive statistics and chi-square statistical analyses	People from Ethiopian with visual impairment and limb disabilities are not physically active and they do not know health benefits by participating in physical activities.
4	Butakor et al.	2020	Ghana	To examine Ghanaian teachers' attitudes toward inclusive education.	General education teachers ($n = 150$ males, 130 females)	Quantitative - Independent t-test & ANOVA	Teachers with more teaching experience had better behavioral attitudes toward students with disabilities than those with less teaching experience.
5	Simui et al.	2019	Zambia	To discover the academic barriers faced by students with visual impairments at the University of Zambia.	Individuals with visual impairments ($n = 7$).	Qualitative - Hermeneutic Phenomenological approach	University students with visual impairments faced low attitude towards them, a lack of inclusive education policy implementation, a lack of curricula adaptation, a lack of personnel preparedness, and a lack of accessibility.

#	Author(s)	Year	Country(s)	Purpose	Participants	Research method(s)	Findings
6	Chitiyo et al.	2019	Malawi, Namibia & Zimbabwe	To find out from both general and special education teachers' perspectives to identify professional development needs in special and inclusive education in the three African countries of Malawi, Namibia, and Zimbabwe.	Teachers from urban and rural areas ($n = 300$ from Malawi; 125 from Namibia; 204 from Zimbabwe).	Quantitative approach - Descriptive and ANOVA Qualitative approach - thematic analysis	Collectively, the teachers strongly agreed with inclusive education. However, participants from Namibia were reported to have poor attitudes towards students with disabilities. Teachers from all countries identified a need for professional development on issues that support special and inclusive education.
7	Ogu et al.	2017	Nigeria	To determine the attitudes of physical educators in Nigeria toward the inclusion of children with disabilities.	Physical education teachers ($n = 67$) from the Junior Secondary School level in Nigeria.	Quantitative - Descriptive statistics and multiple regression	Physical educators reported positive social acceptance and self-concept toward students with disabilities in inclusive environments; but indicated difficulties dealing with behaviors, a lack of physical education equipment, and a lack of professional qualifications.

#	Author(s)	Year	Country(s)	Purpose	Participants	Research method(s)	Findings
8	Drame & Kamphoff	2014	Senegal	To explore the level of inclusiveness in education for students with disabilities in a country in the most vulnerable regions of Dakar, Senegal.	Students with disabilities, families of students with disabilities, teachers, directors, and other professionals ($n = 30$).	Qualitative - Comparative Observational Case Study	Challenges towards including students with disabilities, such as negative attitudes, lack of teaching preparedness, inadequate teaching methods, poverty, and accessibility.
9	Kentiba	2015	Ethiopia	To identify significant challenges affecting the participation of students with disabilities in physical education and extracurricular activities in selected schools of Ethiopia.	Teachers, students with and without disabilities, and principals ($n = 43$).	Mixed method design - Qualitative - Thematic analysis; Quantitative - Descriptive statistics	Challenges were identified that impact participation of the individuals with disabilities in physical education and extracurricular activities, including limited access, a lack of a comprehensive curriculum, poor pupil to pupil support, a lack of disability sport competitions, a lack of teacher training, poor facilities, and a lack of equipment.

#	Author(s)	Year	Country(s)	Purpose	Participants	Research method(s)	Findings
10	Odongo	2012	Kenya	To examine the attitudes, perceptions, and concerns of Kenyan teachers toward the inclusion of children with disabilities in general education classrooms.	Teachers from primary schools from Kenya ($n = 142$).	Mixed design method - Quantitative: descriptive bivariate correlation, linear regression, and multiple regression Qualitative: inductive approach	Primary teachers reported a positive attitude toward inclusion. However, they believed that there are several obstacles to implementing inclusion, such as students with a wide intellectual spectrum, accessibility issues, a lack of training, and administrative support.
11	Chireshe	2011	Zimbabwe	To investigated special needs education (SNE) in-service teacher trainees' views on inclusive education in Zimbabwe.	In-service teacher trainees ($n = 76$).	Qualitative method - Descriptive analysis, chi-square Qualitative method - interviews	The teachers did not believe that the Zimbabwe curriculum is responsive to the needs of the students with disabilities; nor are general classroom teachers well prepared to accommodate and include students with disabilities. Finally, the in-service teachers believed that policies, supplies, curriculum, and attitudes toward students with disabilities impede inclusive education.

#	Author(s)	Year	Country(s)	Purpose	Participants	Research method(s)	Findings
12	Chhabra et al.	2010	Botswana	To identify the attitudes and concerns of teachers toward the inclusion of students with disabilities in the general classroom.	Teachers ($n = 103$) from geographical regions of Botswana, both rural and urban.	Quantitative method - Descriptive statistics and Pearson correlations	Teachers from Botswana reported unfavorable or unsupportive attitudes towards inclusion. In addition, they lacked the knowledge to address the needs of students with disabilities.
13	Kuyini & Desai	2007	Ghana	To determine whether principals' and teachers' attitudes towards and knowledge of inclusive education, as well as principals' expectations of teachers in implementing inclusion.	School personnel ($n = 20$ principals; 108 teachers) from urban and rural primary schools in Ghana.	Quantitative - regression analysis	Attitude towards inclusion and knowledge of inclusion predicted effective teaching practices, but principals' expectations were not predictive. Challenges to implementation of inclusive education in Ghana identified.

Collating, Summarizing, and Reporting the Results

Consistent with the guidelines of Arksey and O'Malley (2005), the summaries and reporting on the 13 articles is presented in the upcoming section entitled, Inclusion in sub-Saharan Africa. The summary addresses the inclusion of students with disabilities in general education in the sub-Saharan in countries of Africa.

Consultation From Librarian

A senior librarian with expertise and certification in literature reviews provided consultation for this study. The librarian provided a thorough review of all the steps on how this study was conducted based on PRISMA-ScR guidelines. The librarian also assisted the PI with navigation of the various databases.

Inclusion in Sub-Saharan Africa

The concept of inclusion has grown significantly in sub-Saharan Africa since the declaration frameworks released by the United Nations, such as the World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs (UNESCO, 1990), the Salamanca Declaration (UNESCO & the Ministry of Education and Science of Spain, 1994), and the Convention on Rights of Persons with Disabilities (United Nations, 2006). Despite most of the sub-Saharan African nations signing those United Nations declarations and developing their policies, there is still much to be accomplished to ensure the full inclusion of individuals with disabilities in education. The scoping review revealed the perceptions of the students with disabilities and the school personnel toward inclusion.

Students With Disabilities' Perceptions Related to Inclusive Education

Students with disabilities reported that they faced several challenges in the general classrooms. Mtonga et al. (2021), who studied the experiences of students with albinism in

Zambia, reported that the students suffered from teasing by their peers without disabilities. They felt unwelcome amongst their peers in a purportedly inclusive classroom. Simui et al. (2019) also reported that a university student with albinism experienced bullying from sighted students due to her albinism and visual impairment. Students with disabilities experience unfriendly treatment even in supposed inclusive educational environments, including physical education environments. For instance, students with disabilities from Ethiopia identified multiple challenges associated with participation in physical education and extracurricular activities due to the negative attitudes held by their peers without disabilities (Kentiba, 2015). The absence of positive attitudes from peers without disabilities negatively affected the inclusion of students with disabilities (Simui et al., 2019). Consequently, their participation in physical activities decreased (Basha & Van Heerden, 2020). The hostile behaviors of students without disabilities, is one reasons noted by parents who refuse to place their children with disabilities in school (Drame & Kamphoff, 2014). It appears these unwelcoming experiences further compromise the academic performance of students with disabilities in general education classrooms.

School Personnel's Perceptions Related to Inclusive Education

Perceptions of Teacher Preparedness

In sub-Saharan African countries, the inclusion process presents multiple challenges for school personnel in general education schools. The articles selected for this scoping review addressed the perceptions of school administrators, teachers, and other professionals; however, most participants in the studies were teachers.

Multiple African researchers reported on the lack of preparedness of teachers (e.g., Chhabra, 2012; Mpu & Adu, 2021). The researchers of this study noted how uncomfortable the teachers felt when dealing with students with disabilities in their classrooms. For instance, in

their study of South African teachers from special, private, and general schools, Mpu and Adu (2021) reported that the teachers did not have adequate knowledge to work with students with physical disabilities. The teachers reported a desire for in-depth training to build knowledge and skills regarding how to accommodate special education learners in their inclusive general education classrooms. (Mpu & Adu, 2021). Similar concerns were reported by Chhabra in his study of 103 Botswanan teachers. Chhabra (2012) stated that general education teachers felt unprepared when working with students with disabilities in the general classroom, which lead to high frustration and negative attitudes toward those students. When studied, Kenyan teachers also noted the need for additional specialized training in instructional approaches to better support the needs of special education learners, and specifically noted their lack of experience and knowledge on how to deal with a variety of disabilities conditions in their classrooms (Odongo, 2012). The importance of having professional development training regarding how to better serve students with disabilities was also noted as critical by teachers from Malawi, Namibia, and Zimbabwe (Chireshe, 2011; Chitiyo et al., 2019; Ogu, 2017). Teachers in Zimbabwe added that they felt that the teaching methods promoted and used did not apply the needs of their special education students (Chireshe, 2011).

As was the case in investigations of teachers in the general education classroom, similar issues were reported in the physical education classroom. Kentiba (2015) reported that more than 60% of the Ethiopian physical education teachers surveyed had no access to professional development, which negatively impacted the participation of the students with disabilities in physical education and extra-curricular activities. Butakor et al. (2020) established further that teachers with more professional experiences teaching students with disabilities demonstrated more positive behavioral attitudes towards inclusion than teachers did with less experience. In

response to his research findings, Butakor et al. (2020) proposed that teachers must be able to identify the students' needs and apply appropriate teaching strategies to support those needs if they are to overcome the difficulties faced in inclusive environments. Drame and Kamphoff (2014) added that teachers should change their teaching approach to follow a student-centered pedagogy instead of a teacher-centered pedagogy, to facilitate more acceptance of students with disabilities and to create a more welcoming environment for all learners. Moreover, Kuyini and Desai (2007) documented the combination of teachers having greater knowledge and more positive attitudes leads to more effective teaching practices.

Perceptions of Policies and Teaching Resources

Most African countries have developed inclusive teaching practices, as well as their own inclusive education policies based on the Salamanca Declaration and framework on special education (UNESCO & the Ministry of Education and Science of Spain, 1994). Unfortunately, as documented by Chireshe (2011), Zimbabwe's inclusive education policy was not designed around the realities of the school environment, so the inclusive education policy lacks support and resources to be implemented as designed. Chireshe (2011) also reported that the country was not ready to adopt Zimbabwe's inclusive education policy since the school personnel were not trained and lacked the necessary materials, resources, and infrastructures.

In Ghana, Kuyini and Desai (2007) reported that inclusive education programs need systematic reform aligned with all-inclusive education policy requirements. Ghana's inability to implement education policies directed toward the inclusion of students with disabilities arose from the lack of specific and clear guidelines for schools (Kuyini & Desai, 2007). Odongo (2012) affirmed this in his study of Kenya teachers, who reported that the special education policy was not observed in a practical way since most teachers are not trained to implement

instruction designed to meet the needs of the students with special needs. One of Odongo's participants (2012) stated:

How do the policymakers expect us to work with students whom we have not been trained for? Our inability to meet the needs of those students with specific problems such as mental retardation, autism, and multiple disabilities... Teaching all these students at the same time is really a difficult job. (p. 98)

A lack of stakeholder knowledge and advocacy for inclusive education policy in most sub-Saharan African countries has also contributed to the poor implementation of inclusive education policies. Researchers (e.g., Butakor et al., 2020) have documented that most stakeholders do not understand inclusive education policies. After researching inclusive education specifically in South Africa, Mpu and Adu (2021) suggested that “policies regarding the implementation of inclusion need to be reviewed regularly and need to be advocated to all stakeholders” (p. 233). Moreover, policymakers and curriculum experts must consider the teaching methods and materials for different levels of learners to make them inclusive (Kentiba, 2015). For example, physical educators from Ethiopia reported that the physical education curriculum was not designed to promote the participation of students with disabilities in physical education classes (Kentiba, 2015); and physical educators in Senegal reported using the general physical education curriculum with few modifications, which made learning and participation difficult for primary students with difficulties.

Challenges reported by those investigating inclusive education in sub-Saharan African (e.g., Butakor et al., 2020; Chireshe, 2011; Chitiyo et al., 2019; Ogu 2017) were similar to those reported by Gomes et al. (2022) in their study related to the inclusion of students with disabilities in the physical education in Angola. It was reported that the inclusion of students with

disabilities in physical education was constrained by teachers' lack of professional preparation, curricular limitations, and negative and prejudicial attitudes toward individuals with disabilities from peers and school personnel (Gomes et al., 2022). Given these findings, and that this is the only known study about the inclusion of students with disabilities in physical education in Angola, it is essential to learn more about the perspectives and judgments of teachers who provide physical education to students with disabilities in the general education system.

To conclude, the countries in Africa need inclusive education policies and teacher education programs that more fully support the effective implementation of inclusive education, including inclusive physical education. Of particular concern is the need to prepare school personnel, such as principals, teachers, and teachers' assistants, with the knowledge and skills necessary to serve students with disabilities appropriately in inclusive general education classrooms. Furthermore, educational systems in sub-Saharan Africa must adapt their curriculum and provide modifications to address the needs of students with disabilities with different motor, sensory, and intellectual challenges, including improving accessibility, educational materials, and equipment. Addressing these student needs, in sub-Saharan Africa, is not unusual in the general classroom environments. In addition, the teachers are also responsible for including physical education. Without further investigation of the current educational context, including teacher perceptions and judgments about inclusive education, schools in sub-Saharan Africa will continue to struggle to provide educational environments where students with disabilities can excel academically, socially, emotionally, psychologically, and physically without stigma and prejudice.

Research Instruments Related to Inclusion in Physical Education

Even though special education laws and human rights acts specific to education have been in place for decades, the acceptance of students with disabilities in general education settings is still a critical issue in most mainstreaming schools worldwide (Block & Obrusnikova, 2007; Hutzler, 2003). The students with disabilities, who are physically placed in the general classroom, experience segregation and social isolation from their peers without disabilities (Place & Hodge, 2001). The lack of inclusiveness in general physical education has been attributed to physical educators being ill-prepared to teach students with disabilities (e.g., lacking experience and knowledge), as well as teachers' attitudes toward inclusion (Block & Obrusnikova, 2007; Hutzler, 2003). To reverse the situation, Ainscow (2020) suggested that the inclusion of students with disabilities requires policies and leadership that promote inclusion and equity as principles that guide the work of teachers. Researchers, in their studies of inclusive practice, have developed instruments to measure factors related to inclusion in general physical education (Bebetsos et al., 2013; Block, 1995; Block et al., 2013; Campos et al., 2022; Cyran et al., 2017; Doulkeridou et al., 2010; Hodge et al., 2015; Kudláček, 2001; Martin & Kudláček, 2010; Orlić et al., 2016; Özer et al., 2013; Vaillo et al., 2016). The purpose of this section is to provide an overview of the instruments available in the literature that measure factors related to inclusion in physical education.

Identifying Relevant Literature

Specific methods were employed for this review of literature on instruments evaluating factors related to inclusion in general physical education. First, the examination of the literature was through implementation of search strategies that included the following search terms: (survey OR questionnaire OR instrument), (“adapted physical education” OR APE), (“children

with disabilities” OR “students with disabilities”), and (inclusion OR “inclusive education”) through Google Scholar. Reference lists taken from articles identified from those search terms were also checked for additional potential articles. A second search strategy was employed with a different set of articles identified through Scopus. The Scopus database was used to conduct literature mappings for specific studies, as well as performing author searches to uncover articles written by seminal researchers that were not located in Google or using the search terms identified. The last procedure performed was a pearl growing or snowballing method. It was done by reading the articles, following the references, or checking the citations. The inclusion criteria targeted studies that: (a) addressed a research instrument, (b) were related to the inclusion of students with disabilities in general physical education settings, and (c) were written in English or Portuguese.

Physical Education Instruments

In the 1960s, when students with disabilities began the movement in the United States from special education schools to regular education schools (Rizzo, 1983), special education investigators began to publish studies about the challenges of general classroom teachers who were teaching students with disabilities, principally those with intellectual disabilities (Dunn, 1968). Most of the studies were conducted using instruments addressing the attitude of the teachers related to students with disabilities (Rizzo, 1983). From 1970 to the 1990s, as decrees regarding the education of people with disabilities in the least restricted environment were being adopted worldwide, physical education researchers began to parallel the work of special education researchers and develop instruments to assess the issues related to inclusion in general physical education (Block, 1995; Rizzo & Vispoel, 1991; Rizzo, 1983). The following is a

summary of the seminal instruments developed, presented with particular attention to the target populations investigated.

Target Populations

The research instruments developed to assess variables related to the inclusion of the students with disabilities in the general physical education environment typically targeted physical educators, students without disabilities, and university students who were majoring in physical education. That said, the overwhelming majority of the literature utilized physical educators as the target population. This is not surprising given that they are the professionals who play a critical role in the inclusion of students with disabilities in general physical education classes (Block & Rizzo, 1995; Campos et al., 2022; Combs et al., 2010; Cyran et al., 2017; Doulkeridou et al., 2010; Fournidou et al., 2011; Hodge, Murata, & Kozub, 2002; Obrusnikova, 2008; Özer et al., 2013; Rizzo & Vispoel, 1991; Rizzo & Wright, 1988; Rizzo, 1983; Yarimkaya & Rizzo, 2020).

Seminal Instruments

Instruments related to the inclusion of students with disabilities in general physical education have been developed to assist researchers and practitioners to better understand the attributes (e.g., attitudes, beliefs, perceptions, self-efficacy) of physical educators, undergraduate physical education majors, and students without disabilities. Multiple instruments were identified within the adapted physical education literature that were utilized in multiple studies and reported psychometric soundness. They include: Physical Educators Attitude toward Handicapped (PEATH, Rizzo, 1983, 1984), Children's Attitudes Toward Integrated Physical Education–Revised (CAIPE-R, Block, 1995), Attitude toward Teaching Individuals with Disabilities in Physical Education (ATIPDPE, Kudláček et al., 2002), Self-Efficacy Scale for

Physical Education Teacher Education Majors towards Children with Disabilities (SE-PETE-D, Block et al., 2013), PEJI (Hodge, Murata, & Kozub, 2002), and Children's Beliefs and Intentions to Play with Peers with Disabilities in Middle School Physical Education (CBIPPD-MPE, Obrusnikova et al., 2010). The four most cited instruments including their intended purpose, instrument properties, and the theoretical framework on which the instrument was developed (see Table 3).

Table 3*Seminal Instruments Developed to Investigate Inclusion in Physical Education*

Instrument	Intended purpose	Instrument properties	Theoretical framework
Physical Educators Attitude toward Handicapped (all versions; PEATH, PEATH-II, PEATH-III) and Physical Educators' Attitude Toward Teaching Individuals with Disabilities-III [PEATID-III])	To assess physical education teachers' attitudes toward teaching students with learning disabilities and physical disabilities in K-8 general physical education	A 33-item instrument with established construct validity. Internal consistency reported as alpha coefficient of .97	Theory of Reasoned Action (Ajzen & Fishbein, 1980)
Attitude toward Teaching Individuals with Disabilities in Physical Education (ATIPDPE; and revised ATIPDPE-R)	To predict the intention of Czech Republic undergraduate physical education students to include students with physical disabilities in general physical education	A 59-item instrument divided across Theory of Planned Behavior constructs; construct validity reported. Alpha coefficients range from .71 to .94	Theory of Planned Behavior (Ajzen, 1991)
Physical Educators' Judgments About Inclusion (PEJI)	To understand the experience of physical education teachers working with students with disabilities in the inclusive physical education environment	A 16-item instrument with items divided across the three dimensions of inclusion, acceptance, and perceived training needs. Alpha coefficients for the three subscales range from .64 to .88	Theory of Planned Behavior (Ajzen, 1991)
Children's Attitudes Toward Integrated Physical Education–Revised (CAIPE-R)	To assess the attitude of K-12 general education students toward the inclusion of students with disabilities	A 13-item instrument with established construct validity. Internal consistency reported with alpha of .78	Theory of Reasoned Action (Fishbein & Ajzen, 1975) and a framework for measuring attitudes towards students with disabilities (Antonak, 1988)

Methodologies for Validation of a Cross-Cultural Translated Instrument

Critical to the current study is a clear understanding of best practices in instrument validation, particularly the validation of translated instruments. This review of the literature not only elucidates best practices in instrument translation and validation, but it also provides a framework by which the PEJI-A was developed. The following section provide details on the review of the literature methodology, and procedures for validating a cross-cultural translated instrument, including procedures for translating an instrument, estimating sample size, determining reliability, and establishing validity.

Identifying Relevant Literature

The literature search employed multiple approaches to identify literature relevant to instrument validation and instrument translation. The first search approach used was to search the TWU Libraries' federated search engine (i.e., TWUniversal) and the TWU Catalog, where book chapters about validation were obtained. A second search approach was conducted through Google search strategies, and Google Scholar searches. The terms (procedure OR process OR steps), (survey OR questionnaire OR instrument), and (validate OR validation OR validity) were used to search for articles. Literature mapping, a method to discover and investigate the connections among articles related to a topic (Garousi et al., 2020), was applied through the Scopus database to obtain additional articles; this included document searches and author searches. Finally, a pearl growing or snowballing approach, was used wherein articles were checked with citations used to find additional literature.

Procedures for Validating a Cross-Cultural Translated Instrument

Cross-Cultural Translation

Translation. Globalization has increased societies' cultural diversity, impacting the scientific world (Banville et al., 2000; Gitner, 1998). Banville et al. (2000) stated, “one impact has been the need to translate research instruments for use with people speaking different languages” (p. 374). Candell and Hulin (1986) stated that the most challenging task in research appears to be translation. Researchers (e.g., Gjersing et al., 2010; Guillemin et al., 1993; Tsang et al., 2017) suggest several steps must be followed to ensure the quality of the translation from one language to another. They are: (a) translations, (b) back translations, (c) committee review of those translations and back translations, (d) preliminary pilot testing, and (e) validation of the instrument, as outlined in Table 4. Researchers agree that translation is not just the mechanism of translating words from one language to another, but an action of reconstructing cultural concepts or cultural adaptations unique to that specific language (Beaton et al., 2007; Candell & Hulin, 1986; Caro & Stiles, 1997; Gjersing et al., 2010). Cross-cultural translation is recommended at least by two independent translators (Beaton et al., 2007; Guillemin et al., 1993). In addition, the characteristics of the translators are key to the quality of the translation (Guillemin et al., 1993). Translators should be bilingual and preferably have the translated language as the mother tongue to better reveal the nuances of the language (Beaton et al., 2007; Hendricson et al., 1989). Guillemin et al. (1993) and Tsang et al. (2017) suggested that one of the translators should be aware of the concepts of the instrument and the second translator should not be aware, so that discrepancies between the two translations can be discussed and solved.

Table 4*Guidelines for Validation of a Cross-Cultural Translated Research Instrument*

#	Steps	Explanation
1.	Identification of the instrument	An instrument that applies the purpose of the investigation.
2.	Authorization from the author	Permission to use and translate the instrument for an investigation in a different country.
3.	Translation	Two independent translators that have the target language as their mother tongue
4.	Back translation	Two independent translators.
5.	Committee review	Experts ensure that the cross-cultural translation has equivalent comprehension to the original version.
6.	Preliminary testing	The test of the experimental version of the translation with (a) a small sample of participants from the target language or (b) experts from the target language.
7.	Preliminary evaluation	Content and face validity analysis to produce the last version of the target language translated.
8.	Back translation	The last version of the instrument from the target language.
9.	Committee review	Experts ensure that the cross-cultural translation has equivalent comprehension to the original version.
10.	Evaluation of the instrument	Conduct data collection in the target population and analyze the reliability and construct validity of the instrument.
11.	Establishment of the instrument in a new language	Establishment of the last version of the instrument of the target language.

Back Translation. Once the initial version of the translation is obtained, a back translation should be performed into the original language at least by two independent translators, different from those that performed the first translation (Guillemin et al., 1993). The purpose of back translations is to ensure the accuracy of the translation if it has unclear wording or misunderstandings that may be revealed in the initial translation (Tsang et al., 2017).

Committee Review. The committee reviewers of the translation and back translation are constituted by experts that produce the pre-final translation. The experts need to verify all the

versions of the translations to observe and resolve discrepancies (Guillemin et al., 1993). Their role is to determine if both translations achieve semantic, conceptual, and idiomatic equivalence to the original version (Guillemin et al., 1993). This is done to ensure that the translated instrument represents the same meaning as the original version.

Preliminary Testing. The researchers should assess the pre-final translation of the instrument on a small sample, between 30 and 50 participants of the population of the target language (Perneger et al., 2015). This procedure allows researchers to have a verbal interview with the participants after taking the test on the translated instrument to find out what they think about each question to ensure that the items represent the same meaning as the source items (Tsang et al., 2017). However, researchers can apply other research approaches to validate the preliminary translation. The face and content validity approach is used in the preliminary validation of the instrument by a committee of experts (Elangovan & Sundaravel, 2021). Face validity is a research approach that verifies whether the instrument measures what it claims to measure and content validity refers to if the instrument measures the construct(s) under investigation (Chapelle, 1998; Mosier, 1947; Rubio et al., 2003). Construct is the subject matter, the underlying theme(s), or the idea(s) that the researcher wishes to measure through the survey instrument (Dew, 2008; Ju et al., 2020). For instance, the PEJI instrument underlies the following themes such as inclusion versus exclusion, acceptance of students with disabilities, and perceived training needs (Hodge, Murata, & Kozub, 2002). Experts are those that have extensive knowledge to conduct this procedure (Elangovan & Sundaravel, 2021). They have to have familiarity with the constructs of the instrument's items (Tsang et al., 2017). Experts can establish that the instrument's items evaluate what it intends to evaluate (Bölenius et al., 2012; Mahapatra et al., 2020). In the preliminary validation of PEJI-A, experts from the Ministry of

Education provided a deep analysis of language semantics, vocabulary, appropriateness of the terms, and syntax. Therefore, the preliminary validation of the instrument can be conducted through a survey with a small sample of participants and/or a committee of experts.

Back Translation. Like the first back translation, any updated or modified version of the instrument must also be back translation to verify the accuracy of the translation from the original version of the instrument (Tsang et al., 2017). This back translation process should be repeated each time the instrument is revised during the development process.

Committee Review. Committee reviewers are constituted to review the second version of the back translation to ensure the quality of the instrument translated by observing the possible discrepancies (Guillemin et al., 1993).

Evaluation of the Instrument. The evaluation of the instrument is usually reflected in the main study, which is the last moment of the investigation where the researchers confirm their hypotheses, even though the investigation is the entire process until it gets to this stage. It is a crucial stage where the reliability and construct validity are tested through a quantitative analysis procedure to determine the psychometrics of the instrument (Cronbach & Meehl, 1955). At this stage, there are several aspects to consider when conducting validation of the survey instrument.

Estimating Sample Size

When conducting a quantitative research study, researchers must consider how many participants are needed to achieve statistical significance or a valid conclusion (Fowler & Lapp, 2019). More specifically, a sample size (i.e., the number of participants) should be determined in accordance with the study's purpose; the sample size must not be too small or too large otherwise the results can be compromised (Fowler & Lapp, 2019; MacCallum et al., 1999). Some researchers have advocated that the sample size ratio should be two questions for every 20

participants (Anthoine et al., 2014). However, the sample size can be estimated through factor analysis, which recommends a satisfactory sample size as follows: 100 = poor, 200 = fair, 300 = good; 500 = very good, and 1,000 or more = excellent (Comrey & Lee, 1992).

It is important to mention that when a study is validating a cross cultural validation, an exploratory factor analysis (EFA) is commonly used (MacCallum et al., 1999). A factor analysis is employed as a technique because it can simplify a complex data set with several variables along with constructs that cannot be easily measured (Marsh & Hocevar, 1985). In other words, through factor analysis, the variables (items) that underline each construct are organized in factors that facilitate understanding the data's action (Marsh & Hocevar, 1985).

Reliability

Reliability is also an important measurement that should be reported in empirical research that utilizes a survey, questionnaire, or instrument. The instrument's reliability is related to the consistency of the results; in other words, the ability of the instrument to provide the same results many times (Crocker & Algina, 2008; Cronbach & Meehl, 1955; Tsang et al., 2017). The consistency of an instrument can be evaluated through test-retest reliability, inter-rater reliability, or internal consistency (Tsang et al., 2017). Internal consistency is statistically determined through calculation of coefficient alpha (Cronbach & Meehl, 1955). The higher the alpha coefficient results, the more consistent the instrument. Researchers (e.g., Crocker & Algina, 2008; Cronbach & Meehl, 1955; Tsang et al., 2017) recommended that a coefficient alpha of .70 is acceptable for use in research.

Validity

Validity of an instrument refers to evidence that the instrument measures what it sets out to measure (Litwin & Fink, 1995; Tsang et al., 2017). There are three types of validity that were

used in this investigation, they are face validity, construct validity, and content validity. Face validity is the simplest type of validity that indicates the degree to which an instrument appears effective in terms of its stated aims (Holden, 2010). Content validity refers to whether the instrument translated the items appropriately in the domains of knowledge; that is the constructs (idea, behavior, or concept) that are under investigation (Chapelle, 1998; Rubio et al., 2003; Taherdoost, 2016). As it relates to the current study, content validity was established through the following methods. During the translation of the original PEJI from English to Angolan Portuguese (PEJI-A), the translators made sure that the translation accurately represented the construct content. Furthermore, the translators established the content validity by comparing and adjusting the content from the two translations relevant to Angola.

Besides face and content validity, construct validity is another type of validity crucial in this investigation. Construct validity refers to how well the instrument measures the constructs determined to assess (Nunnally & Bernstein 1994; Westen & Rosenthal, 2003), and requires “compilation of multiple types of evidence” (Crocker & Algina, 2008, p. 231). Knowledge of an instrument’s construct validity is critical as it helps the researcher know how well the instrument measures the construct that underlines their investigation (Nunnally & Bernstein, 1994; Westen & Rosenthal, 2003). Crocker and Algina (2008) recommend multiple approaches to determine an instrument’s construct validity.

The first approach recommended involves determining the “correlations between measures of the construct” (Crocker & Algina, 2008, p. 231) to include examining the correlational relationship among scores on instrument factors/dimensions (i.e., PEJI-A dimensions of inclusion, acceptance, and perceived training needs).

The second approach that was recommended for establishing evidence of construct validity is “differentiation between groups” (Crocker & Algina, 2008, p. 231). This construct validation approach determines whether the mean scores of independent variables differ from what was hypothesized based on the theoretical framework (Crocker & Algina, 2008; Hodge et al., 2002).

The third approach, and most extensively used method to determine to construct validity (Crocker & Algina, 2008), is the use of a factor analysis, which is a powerful approach that helps researchers investigate variables that cannot be measured directly (Field, 2018). Through factor analysis, construct validity can be established through item inter-correlation (Crocker & Algina, 2008).

Summary

Challenges to inclusion in sub-Saharan Africa document the critical role physical educator’s play in the successful education of students with disabilities in general education including physical education. To further understand inclusion in physical education, researchers have developed instruments to measure physical education teachers, physical education undergraduate students, and general education students’ attitudes, judgments, and beliefs related to the inclusion of students with disabilities in general physical education classes (Block & Rizzo, 1995; Block, 1995; Block et al., 2013; Hodge, Murata, & Kozub, 2002; Kudláček et al., 2002; Obrusnikova et al., 2010; Rizzo 1983, 1984). Some of these instruments have been translated and applied in research and practice in countries and cultures other than those for which the instrument was originally developed. The current investigation aims to validate a cross-cultural translated version of the PEJI, an instrument developed in the United States by Hodge, Murata, & Kozub (2002), for use in the educational systems of Angola. The procedures

recommended in this chapter, and necessary to examine the psychometric properties of the PEJI-A, are explained in greater detail as the multi-phase validation process is presented in Chapter

III.

CHAPTER III

METHODOLOGY

Multi-Phase Validation Process

The purpose of this investigation is to examine the psychometric properties of PEJI-A. This investigation was guided by the following research questions, which focus on the properties of the PEJI-A instrument.

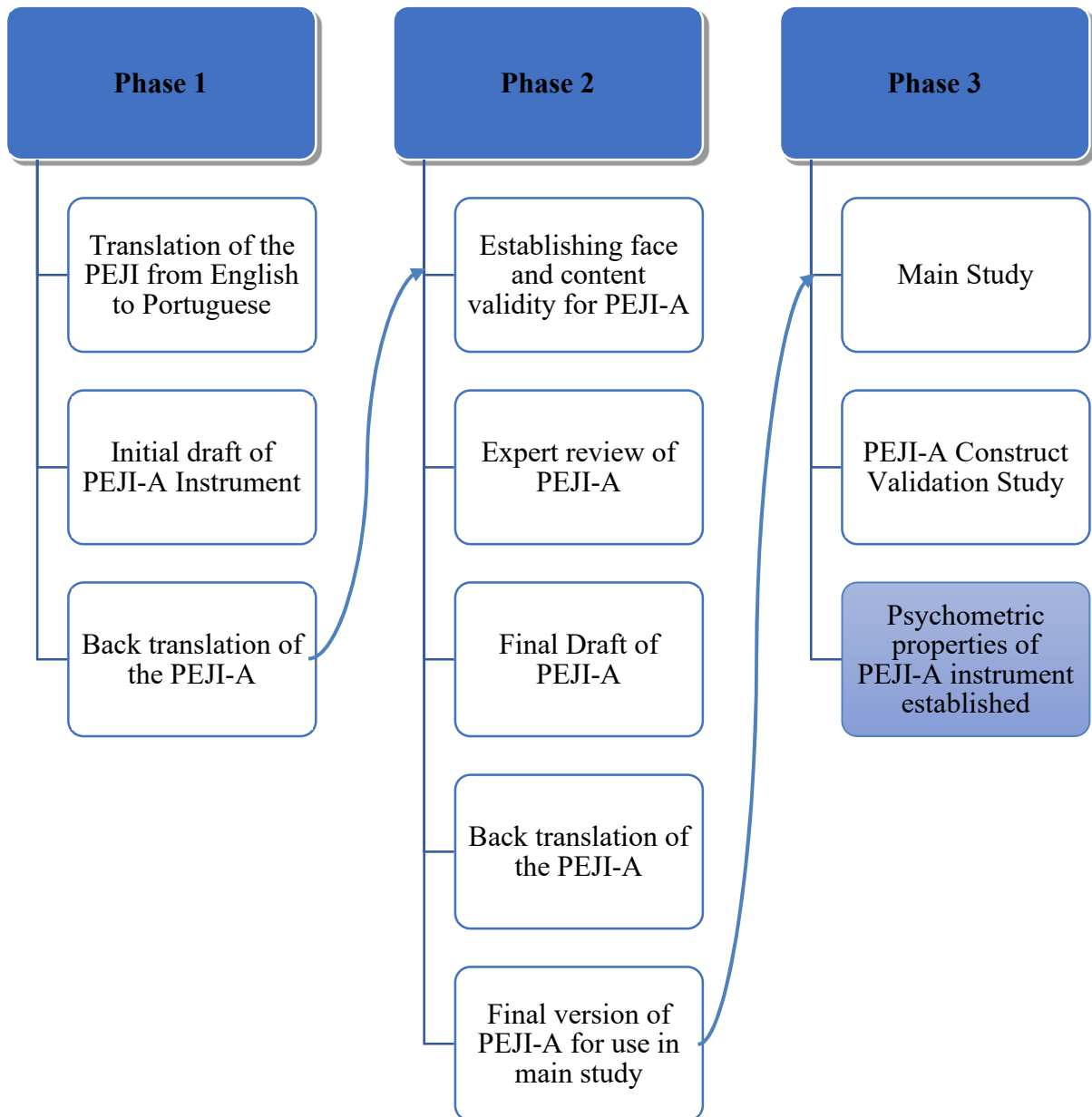
Research Questions

1. Does the PEJI-A demonstrate evidence of reliability?
2. Does the PEJI-A demonstrate evidence of construct validity?

These research questions also guided the methodology for the current investigation. The process of validating the PEJI-A was proceed in three phases: (a) translating of the PEJI instrument into Portuguese as spoken in Angola (i.e., PEJI-A), (b) establishing the face and content validity of the PEJI-A, and (c) investigating of the reliability and construct validity of the PEJI-A through the main study. The specific methodology for each of the three phases is explained in this chapter and presented below (see Figure 2).

Figure 2

Representation of the Methodological Phases



Phase I: Translation of the Instrument

Purpose and Design of the PEJI

The PEJI is a quantitative research instrument that was developed to help PETE programs examine the “judgments of PETE preservice teachers toward the inclusion of students with disabilities into general physical education classes” (Hodge, Murata, & Kozub, 2002). Accordingly, the PEJI instrument has been applied in PETE programs for the purposes of evaluating the physical educators’ judgments, which are “cognitive expressions of attitudes,” related to issues including students with disabilities in general physical education settings (Hodge, Murata, & Kozub, 2002). There are three distinct parts to the PEJI, which are addressed in the following sections.

The PEJI cover sheet introduces the participant to the purpose and procedures for using the instrument including clarifying the definition of inclusion. For the purposes of the PEJI, Hodge, Murata, and Kozub (2002, p.1) cited the work of other scholars and defined inclusion as “an approach that supports the placement of all students with different abilities and disabilities (mild to severe) into regular physical education classes with typically developing peers (i.e., students without disabilities) in their neighborhood schools” (Block, 2007; Murata et al., 2000). The PEJI instrument then presents definitions for a range of disabilities that are addressed within the PEJI items. The disabilities defined are behavioral disorder, deaf and blind, hard-of-hearing, learning disability, mild disabilities, mild intellectual disability, physical disability, severe disabilities, severe intellectual disability, and visual impairment. The definitions of the disabilities are provided to assist the participants with understanding the meaning of each disability as they complete the instrument. Finally, the PEJI consists of 16 items that are divided across three subscales: (a) judgments about inclusion versus exclusion, (b) judgments about

acceptance of students with disabilities, and (c) judgments about perceived training needs (Hodge et al., 2015; Hodge et al., 2002; Hodge et al., 2013). The 16 items from the PEJI are presented in Table 5 by subscale. The items in the PEJI instrument are presented along with a 5-point Likert scale (Likert, 1932) of responses (i.e., strongly disagree, disagree, undecided, agree, strongly agree), which the participants use to indicate their judgements or perceptions.

Table 5*PEJI Items Organized by Subscale (Adapted from Hodge et al., 2015)*

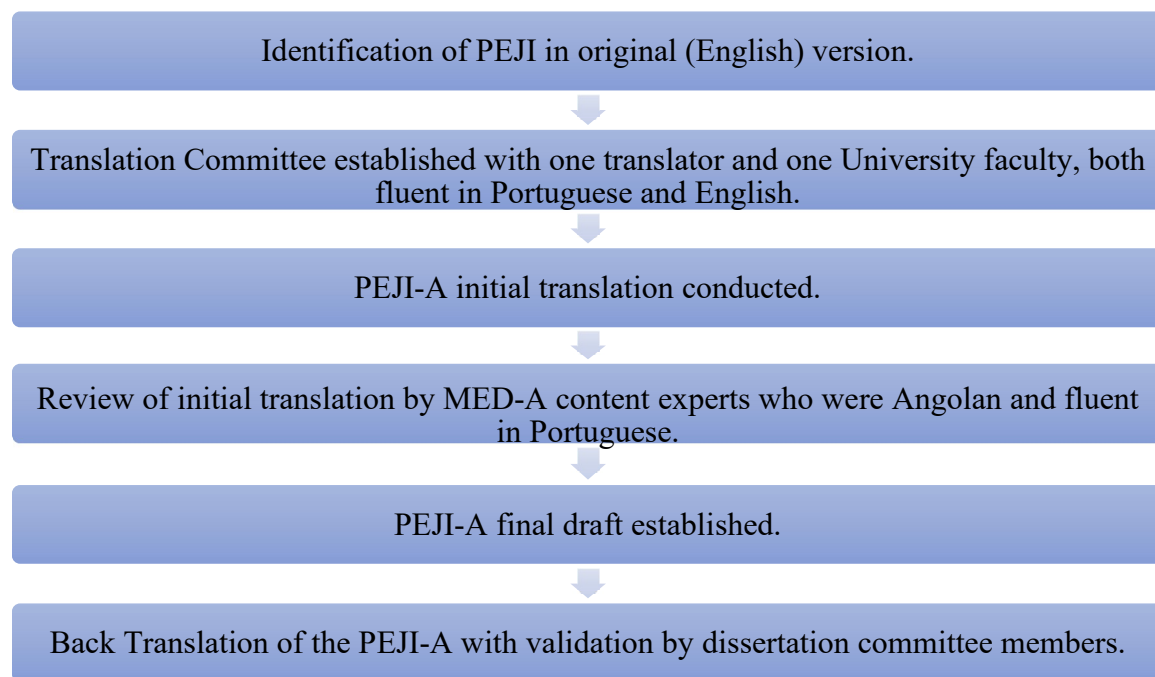
Subscale	Items
1. Judgments about inclusion versus exclusion	1. All students with disabilities should be taught in regular physical education. 2. Inclusion is an idealistic philosophy that will not work in regular physical education classes. 3. Students with severe disabilities should be taught in separate adapted physical education classes only. 4. Students with severe disabilities always need a one-on-one ratio to successfully take part in inclusive physical education activities. 5. Given the range of disabilities that can exist, it is unrealistic to expect a regular physical education teacher to teach all students who have disabilities in their classes.
2. Judgments about acceptance of students with disabilities	6. I would readily accept teaching a student who is hard of hearing in my physical education classes. 7. I would readily accept teaching a student with a visual impairment in my physical education classes. 8. I would readily accept teaching a student with a learning disability in my physical education classes. 9. I would readily accept teaching a student with a physical disability (e.g., a student who uses a wheelchair or crutches) in my physical education classes. 10. I would readily accept teaching a student with an intellectual disability in my physical education classes.
3. Judgments about perceived training needs	11. To be more effective teaching students with disabilities I need course work that provides me with knowledge about a wide range of disabilities from mild to severe. 12. To be more effective teaching students with mild disabilities I need exposure (e.g., direct contact experiences) to students with mild disabilities during my professional development. 13. To be more effective teaching students with severe disabilities I need exposure (e.g., direct contact experiences) to students with severe disabilities during my professional development. 14. To be more effective teaching students with mild to severe disabilities, I need to receive training on activities that includes ideas on lesson planning for a variety of ability levels. 15. To be more effective to teaching students with mild to severe disabilities, I need training in behavioral management strategies and conflict resolution beyond what is necessary to teach students without disabilities. 16. To be more effective teaching students with mild to severe disabilities I need assistance from others (e.g., adapted physical education teacher, special education teacher, peer tutors).

Translation of the PEJI Into the PEJI-A

The PEJI was translated from English to Portuguese, as spoken in Angola, following the guidelines suggested by Beaton et al. (2007), Guillemin et al. (1993), and Herdman et al. (1998). The steps adhered to for the translation process are outlined in Figure 3 and include back translation of the newly developed PEJI-A.

Figure 3

Development of the PEJI-A for the Main Study: Steps of the Translation Procedures



The independent translation of the PEJI to a draft version of the PEJI-A instrument was conducted by two bilingual professionals skilled in Portuguese and English. While Portuguese is the primary language of Angola (Beaton et al., 2007), the dialect of Portuguese as spoken in Angola is influenced by the Bantu languages (Angolan African languages), which makes the

Portuguese spoken in Angola unique to the Portuguese spoken in other countries such as Portugal and Brazil (Ndombele, 2022; Sassuco, 2016; Severo et al., 2019).

A professor from Universidade Agostinho Neto and a professional Portuguese-English translator who independently translated the PEJI into Angolan Portuguese and sent their translations and feedback to the principal investigator (PI). The PI reviewed the independent translations prior to organizing a Zoom conference call with the translator. Due to a professional obligation, the university professor was unable to join the Zoom conference call. Therefore, the PI and the two professional translators used the translation and feedback from the university professor as a part of their deliberations to develop together a final draft of the PEJI-A to best reflect the Portuguese as spoken in Angola (see Figure 3).

As a part of this translation process, the PI also updated the disability terminology to reflect language appropriate in the worldwide inclusion movement and consistent with the Salamanca Declaration (UNESCO & the Ministry of Education and Science of Spain, 1994). For example, the term “mentally retarded” was updated to “intellectual disability” (Gooding, 2015; Lang, 2009).

The initial Portuguese translation version of the PEJI-A was sent to an independent back translator, a professional translator, and an expert in linguistics in both languages (English and Portuguese), to confirm the accuracy of the Portuguese translation (Guillemin et al., 1993). After the back translation was completed, APE expert reviewers, who consisted of the PI’s faculty advisor and a retired APE professor that were both experts in survey development, evaluated the accuracy of the back translation (Beaton et al., 2007). The APE expert reviewers analyzed and approved the English back translation of the PEJI-A.

Development and Translation of the Demographic Questionnaire

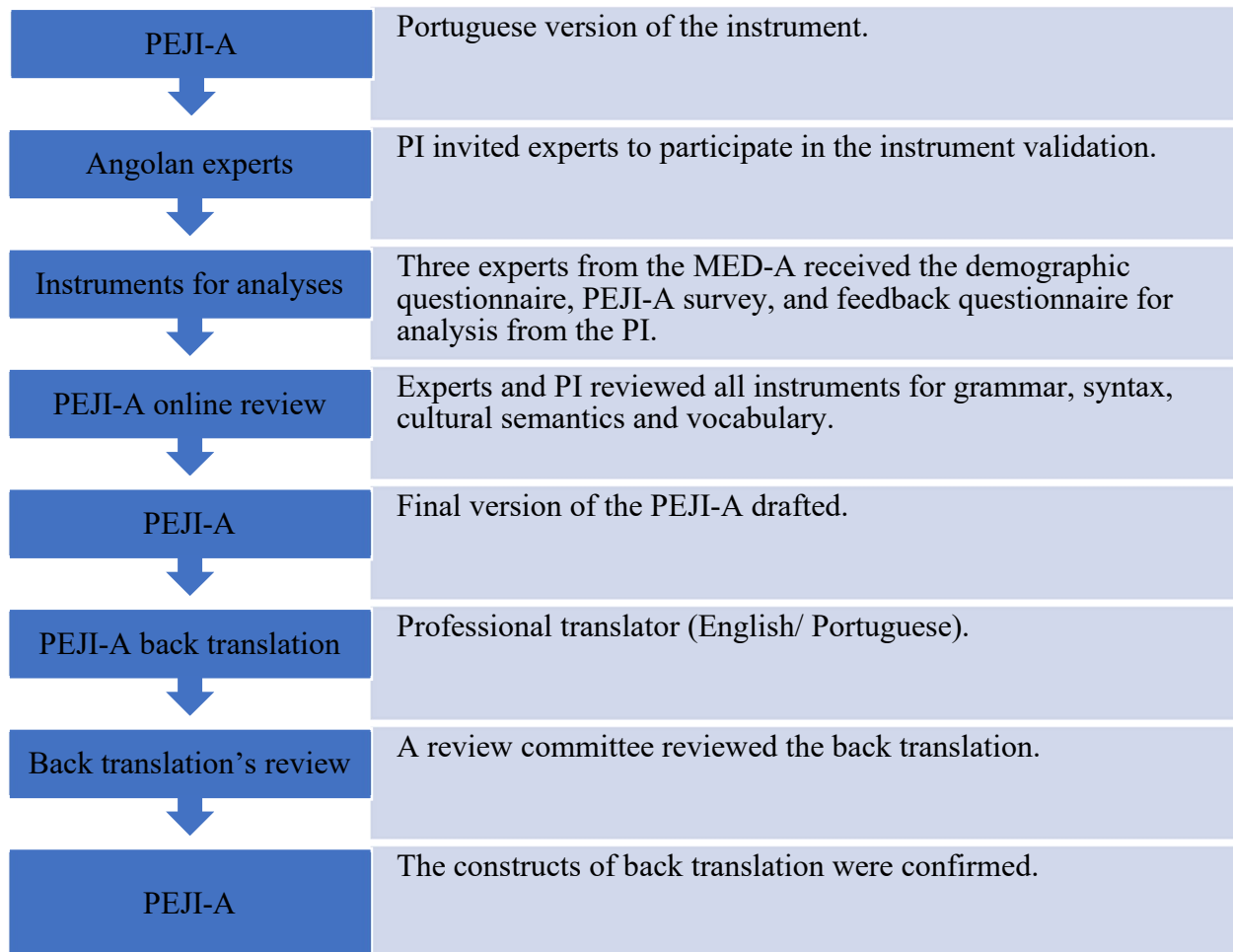
While the PEJI-A is the main instrument for this investigation, a demographic questionnaire was also developed and translated into Angolan Portuguese (see Appendix A). The demographic questionnaire was modified from the original PEJI, as developed by Hodge et al. (2002), and revised to address the Angolan context. The 14-question demographic questionnaire addresses the following: (a) personal attributes, (b) teaching experiences, and (c) academic experiences. The demographic questionnaire was used to identify and describe the participants including the physical educators' level of education and years of experience teaching students with disabilities (Dobosh, 2017).

Phase II: Establishing Face and Content Validity of the PEJI-A

Validity in research refers to how well an instrument measures what it claims to measure (Field, 2018). Specific to this phase of the investigation, face and content validity was investigated through a multi-step translation and back translation process. The specific steps followed in the process for the validation of the PEJI-A are outlined in Figure 4.

Figure 4

The PEJI-A Validation Process for Establishing Face and Content Validity



During the development of the initial version of the PEJI-A (i.e., the translation of the original PEJI from English to Portuguese), the translators ensured that the translated items accurately represented the construct presented in the PEJI statements. More specifically, the PI and translators established the content validity by comparing their independent translations of the PEJI and adjusting the specific terms to ensure that the items accurately represented the original construct (i.e., idea, behavior, concept).

Bölenius et al. (2012) and Mahapatra et al. (2020) recommend that experts could be used to establish that the instrument evaluates the research question(s). When an expert, an individual who has extensive knowledge to examine the items in an instrument, verifies that they measure what the items intend to measure; it is recognized as face validity (Sangoseni et al., 2013). Other researchers (Guillemin et al., 1993; Tsang et al., 2017; Xie et al., 2022) suggest that the experts should also be individuals familiar with the construct of the instrument so that they can determine if the instrument translated is conceptually and semantically similar to the original version of the instrument. This process was conducted in the current investigation with a preliminary investigation of the face and content validity with participation of the Angolan education experts from the Ministry of Education of Angola.

The professionals from Ministry of Education were all residents of Angola, who (a) held graduate academic degrees in education, (b) had more than 10 years of experience in education, and (c) hold leadership positions in the Ministry of Education of Angola. The experts for the face and content validity investigation included three specialists with educational specializations in physical education, special education, and sociology of education.

The face and content validity procedure of the PEJI-A instrument and the demographic questionnaire followed the following steps recommended by the literature (Hodge et al., 2015; Mahapatra et al., 2020). First, the PI individually emailed the experts and included the PEJI-A instrument and the six-page demographic questionnaire along with the feedback questionnaire as a separate document. The PI requested that the experts review the demographic questionnaire and the PEJI-A using the feedback questionnaire to provide specific recommendations. Based on the feedback questionnaire, the experts were asked to provide feedback on the level of difficulty

and clarity of each question. The experts also provided feedback on the appropriateness of the grammar, syntax, semantics, and vocabulary used in relation to Angola.

The PI organized a meeting using Google Hangout within a week of the experts independently reviewing the demographic questionnaire and PEJI-A for the purpose of sharing their feedback with the PI. The PI's faculty advisor was present at the beginning of the meeting for introductions, explanations of the current investigation, and the intended purpose of the online meeting with the PI translating the information into Portuguese for the experts. Along with the PI, the experts reviewed the instruments line-by-line and discussed their viewpoints on specific aspects of each question in a transparent process (Gizaw et al, 2022). Each question was analyzed thoroughly, and specific changes were made according to the cultural semantics of the Portuguese language spoken in Angola. For example, the demographic questionnaire item related to gender was originally proposed with three options (i.e., female, male, I prefer not to indicate). The experts all recommended the removal of the last option (i.e., I prefer not to indicate) stating that it was more appropriate for Angola's cultural context to include only female and male as response options.

Back Translation PEJI-A Instrument

Using the final draft of the PEJI-A (see Appendix B), an independent professional bilingual translator (an expert in linguistics) translated the instrument back into English to ensure the precision of the translation (Guillemin et al., 1993). This back translation was reviewed by a committee comprised of the PI, her faculty advisor, and a retired professor of APE with expertise in survey development. The back translation was compared to original PEJI instrument in American English and reviewed for possible discrepancies. Through this process, the APE expert

reviewers confirmed that the back translation of the PEJI-A retained all the constructs of the original PEJI instrument (Solans-Domènech et al., 2019).

Challenges to Establish Face and Content Validity

As recommended in the literature (e.g., Beaton et al., 2007; Perneger et al., 2015), the PI intended to pilot the demographic questionnaire and the PEJI-A with a sample of participants (i.e., 30) to evaluate the preliminary validity (i.e., face and content validity). However, the Texas Woman's University Institutional Review Board (IRB) requirements to conduct the pilot investigation outside the United States of America, in this case in Angola, posed several challenges that made completion of the pilot study not feasible. For example, it was not feasible for the PI to travel to Angola to collect the pilot study data in person, nor was it feasible for the PI to collect data over the internet or the phone due to unreliable internet connectivity in Angola, computer issues, and potential financial burden to participants in Angola. Therefore, face and content-validity were established using alternative methods that used American and Angolan experts (Elangovan & Sundaravel, 2021).

Phase III: Main Study

In the main study, the PEJI-A was investigated to examine its psychometric properties (i.e., inclusion, acceptance, perceived training needs). The following section details the methodologies used in this investigation including participants and sampling procedures, research design and instrumentation, and data collection and analysis.

Participants and Sampling Procedures

Convenience and purposive sampling techniques (Orcher, 2016) were applied to recruit 244 participants from three provinces of Angola, with efforts to recruit equal numbers of elementary school teachers who provide physical education instruction and secondary physical

education teachers employed. From the total of 242 teachers recruited with support from the Ministry of Education of Angola (MED-A) and Provincial Directorates of Education in Luanda, Benguela, and Huíla provinces of Angola, 237 were deemed eligible and participated in the study. The 237 participants meet the following inclusion criteria by being: (a) Angolan citizens who reside in Angola, (b) at least 18 years of age, (c) a current teacher in a public or private elementary or secondary school, and (d) responsible for teaching physical education classes. This sample size meets the minimum of 200 participants established for adequate statistical power for data analysis (Hoe, 2008; Singh et al., 2016), given that the model is not complex and the parameter estimates (i.e., path coefficients) are moderate to a large. The support of the MED-A was communicated to all the potential schools and teachers through a letter informing them of the purpose of the investigation and officially acknowledging their support throughout the provinces (see Appendix C).

As previously mentioned, two types of teachers were qualified to teach physical education in Angola. First, elementary school classroom teachers, who must have earned at least a high school diploma in education/pedagogy, are qualified and responsible for teaching physical education to their students, including those with disabilities. Second, were secondary school physical education teachers, who must have earned at least a high school diploma specializing in physical education, are qualified and responsible for teaching physical education to their students, including those with disabilities. To ensure adequate sample size, elementary classroom and secondary physical education teachers were recruited from across the three most populated cities in Angola (i.e., Luanda, Benguela, Lubango), which represent three different provinces of Angola (i.e., Luanda, Benguela, Huíla).

Research Design and Instrumentation

The research method for the main study utilized a descriptive survey (i.e., PEJI-A), which allows for the collection of data from the physical education teachers in a timely, manageable, and feasible manner (Hodge et al., 2015). The PEJI-A was used to assess the participants' judgments about inclusion, acceptance of students with disabilities, and perceived training needs (Hodge, Murata, & Kozub, 2002). In addition to the PEJI-A, a demographic questionnaire (see Appendix A) was also administered to the participants so that the sample population could be adequately described, and independent t-tests and correlational analyses conducted.

Data Collection

The PI conducted the data collection in the Luanda, Benguela, and Huíla provinces of Angola using procedures approved by the Texas Woman's University IRB (see Appendix D). In each province, the PI met the Provincial Director of Education, provided the letter of support from MED-A, and shared details of the investigation procedures. The PI then worked with the provincial coordinator for physical education, who helped to identify the local schools to target for recruitment of participants at the provincial level.

In each elementary and secondary school targeted for participation in this investigation, the PI met with the school principal, explained the investigation procedures, and discussed data collection that was considerate of the participant's schedule. During data collection, the PI explained the purpose of the investigation to the participants and secured informed consent from the participants using informed consent procedures approved by the Texas Woman's University IRB. All participants received an additional copy of the informed consent form (see Appendix E for informed consent forms in English and in Portuguese) to keep for themselves so they could contact the researchers with any questions about the investigation. All participants that consented

to participate in the study completed the demographic questionnaire and the PEJI-A instrument. Data from the demographic questionnaire and the PEJI-A was entered into Excel and transferred to Statistical Package for Social Sciences (SPSS, version 28.0) for analysis.

Data Analysis

Data Cleaning

Prior to conducting data analysis, several data cleaning procedures were followed to identify potential errors (Odom & Henson, 2002; O'Rourke, 2000). Data cleaning is a process of detecting, diagnosing, correcting, or removing errors in data that create disparities, missing bits, and contradictions in order to create reliable information (Bhattacharjee et al., 2013; Van den Broeck et al., 2005). In this investigation, data cleaning was conducted to identify duplicate cases, check scales for zero variance, and check variables for impossible cases (Kreimeyer et al., 2017). On examination, no duplicate cases were identified in the data set. When the data were reviewed for issues of zero variance, zero variance values were removed from the data of 14 participants where their responses were the same for positively and negatively phrased items. When the data were examined for impossible values, it revealed the year of birth for one participant was entered incorrectly. This data was corrected using the participant's original survey. This data check also identified five participants who did not meet the inclusion criteria of being at least 18 years of age. The data for these five participants was also removed from the data set.

Prior to conducting the reliability analysis, two additional procedures were conducted. Consistent with the coding established by Hodge and colleagues (Hodge, Murata, & Kozub, 2002; Hodge et al., 2005; Hodge et al., 2013), it was necessary to reverse code items 2 through 5

in the PEJI-A (Hughes, 2009). In addition, the data for years of experience were screened for normal distribution; this resulted in four outliers being removed (Field, 2018).

Data Analysis

The data were analyzed for the purposes of providing demographic details about the participants, checking for statistical assumptions, and examining the psychometric properties of the PEJI-A. In order to adequately describe the participant population, demographic data were analyzed with descriptive statistics calculated (Field, 2018). To determine the psychometric properties for the PEJI-A, multiple approaches were used that provided estimates of reliability (internal consistency) and construct validity, which refers to how well the instrument measures the constructs it is determined to assess (Crocker & Algina, 2008; Nunnally & Bernstein 1994; Westen & Rosenthal, 2003).

Reliability Analysis

Reliability of the PEJI-A was established by calculating the alpha coefficient as an estimate of internal consistency (Cronbach & Meehl, 1955). The PI calculated the alpha coefficient and evaluated it against a standard of $\geq .70$ (Nunnally, 1978). In addition, results from the analysis of the PEJI-A, by subscale, were compared with those reported in previous studies for the PEJI conducted in the United States of America, Japan, and Brazil (Hodge, Murata, & Kozub, 2002; Hodge et al., 2013; Hodge et al., 2015).

Construct Validity

Construct validity for the PEJI-A was established through multiple approaches that provide different types of evidence. The first approach involved determining the “correlations between measures of the construct” (Crocker & Algina, 2008, p. 231). Specific to the current investigation, the PI determined the correlational relationship among scores on PEJI-A

instrument dimensions (i.e., inclusion, acceptance, and perceived training needs). In the second approach, the PI examined the “differentiation between groups” (Crocker & Algina, 2008, p. 231). The PI conducted two independent *t*-tests to determine if scores on the PEJI-A differed based on gender and educational background (Crocker & Algina, 2008; Hodge, Murata, & Kozub, 2002); and a correlational analysis to determine if a relationship exists between years of experience on dimensions of the PEJI-A (i.e., inclusion, acceptance, perceived training needs; Hodge, Murata, & Kozub, 2002). The final approach utilized to establish evidence of construct validity was an EFA, which was used to determine if a relationship exists among factors/variables. The results from the EFA allowed the PI to understand if the PEJI-A’s items factored responses explain the common subscales or dimension (Crocker & Algina, 2008; Field, 2018; Hodge, Murata, & Kozub, 2002).

CHAPTER IV

RESULTS

This investigation aimed to examine the psychometric properties of the PEJI-A and was conducted in three phases: (a) translation of the instrument, (b) examination of the face and content validity of the PEJI-A, and (c) examination of the construct validity and reliability of the PEJI-A. With the work specific to the first and second phase of the study thoroughly addressed in Chapter 3, the findings focused on the third and final phase of PEJI-A investigation are reported in this chapter in the following sections: (a) demographic information, (b) reliability (internal consistency), and (c) construct validity.

Demographic Information

Participants

A total of 242 participants, who were teachers from elementary and secondary schools credentialed and responsible to teach physical education, were recruited from across three provinces of Angola. Of the 242 participants recruited, five participants were removed from the study because they did not meet one of the inclusion criteria. Based on the power analysis for the current investigation (Kyriazos, 2018), this sample exceeds the 216 participants needed for moderate sample size (Hoe, 2008; Singh et al., 2016). The resulting sample size for the current study was 237 participants (120 males, 115 females, two participants did not identify) from the provinces of Benguela ($n = 113$, 47%), Luanda ($n = 70$, 29%), and Huila ($n = 58$, 24%).

Based on the analysis of the demographic data, the average age of participants was 42.1 years ($SD = 8.2$). The age range of the participants was 19 to 67 years, with 39% of the participants aged 40 to 49 years, 35% aged 30 to 39 years, and 19% aged 50 to 59 years. Related to the teaching preparation, it was reported that only 26% were explicitly trained as physical

education teachers, while 74% were trained primarily as PK-6 general education teachers who were qualified in Angola to provide physical education. Among the 53 participants with training in physical education, 39 of the teachers (33%) were males and 13 of the teachers (11%) were females. For the 148 participants who were trained as general education teachers, 66 of the teachers (55%) were males and 82 of the teachers (71%) were females. All total, 66% of the participants reported experience teaching students with disabilities in physical education, while 30% of participants reported no experience teaching students with disabilities in physical education. The average for years of experience working with students with disabilities was 6.8 years ($SD = 6.4$) and ranged from 1 to 32 years of experience.

Reliability

To establish reliability for the PEJI-A, the internal consistency was estimated through the use of Cronbach's alpha (Cronbach & Meehl, 1955) and evaluated against a standard of $\alpha > .70$. Cronbach's alpha was determined to be .61 for the entire PEJI-A, and .36 for the PEJI-A subscale 1 (inclusion), which are both below the .70 minimum recommended by Nunnally (1978) for research instruments. Higher reliability estimates, above the .70 threshold, were reported for subscale 2 specific to judgments about acceptance of students with disabilities ($\alpha = .81$) and subscale 3 specific to judgments about perceived training needs ($\alpha = .79$). These reliability coefficients for the second and third subscale were deemed acceptable based on Nunnally's recommendations (1978).

The reliability estimates for the PEJI-A subscales along with those reported in previous studies for the PEJI (Hodge et al., 2015; Hodge, Murata, & Kozub, 2002; Hodge et al., 2013) are presented in Table 6 for comparison. It appears all prior versions of the PEJI had lower reliability for subscale 1 when compared to subscales 2 and 3. In addition, while below the acceptable level

of .70, the reliability for the PEJI-A subscale 1 is higher than the version of the PEJI validated in Brazil in Portuguese (Hodge et al., 2015).

Table 6

Comparison of Reliability Coefficients for PEJI's Subscales by Country

Country	Cronbach's Alpha		
	Subscale 1 Judgments about inclusion versus exclusion	Subscale 2 Judgments about acceptance of students with disabilities	Subscale 3 Judgments about perceived training needs
Angola	.36	.81	.79
Brazil (Hodge et al., 2015)	.34	.89	.80
Japan (Hodge et al., 2013)	.49	.85	.91
USA (Hodge, Murata, & Kozub, 2002)	.64	.88	.72

Construct Validity

Descriptive Analysis of the PEJI-A

Descriptive statistics were computed for the 16 PEJI-A items. Based on this descriptive analysis, the mean score for the PEJI-A was determined to be 3.89 ($SD = 0.45$). Within Table 7, the psychometric indices (i.e., mean, standard deviation, standard error of the mean, skewness, kurtosis, range) for the PEJI-A and its three subscales are presented. The mean scores and standard deviations by item for each of the PEJI-A subscales are presented in Table 8.

Table 7*Psychometric Indices for the PEJI-A by Subscale*

Dimensions	Descriptive statistics						
	<i>M</i>	<i>SD</i>	SEM	Min.	Max.	Skew	Kurt
Judgments about inclusion versus exclusion	3.52	.66	.04	1.67	5	-.35	.15
Judgments about acceptance of students with disabilities	3.67	.85	.05	1	5	-.66	.25
Judgments about perceived training needs	4.34	.57	.03	1.60	5	-1.27	2.34

Table 8*Factor Analysis for Dimensions of Inclusion Represented in the PEJI-A*

Factors	<i>M</i>	<i>SD</i>	1	2	3
Judgments about inclusion versus exclusion					
1. All students with disabilities should be taught in regular physical education.	3.47	1.31	-.03	.29	.10
2. Inclusion is an idealistic philosophy that will not work in regular physical education classes.	3.76	1.04	-.05	-.03	.41
3. Students with severe disabilities should be taught in separate adapted physical education classes only.	3.56	1.13	.06	.12	.44
4. Students with severe disabilities always need a one-on-one ratio to successfully take part in inclusive physical education activities.	3.09	.88	-.01	-.24	.38
5. Given the range of disabilities that can exist, it is unrealistic to expect a regular physical education teacher to teach all students who have disabilities in their classes.	3.71	1.14	-.04	.11	.32
Judgments about acceptance of students with disabilities					
6. I would readily accept teaching a student who is hard of hearing in my physical education classes.	3.83	1.12	-.17	.62	-.16
7. I would readily accept teaching a student with a visual impairment in my physical education classes.	3.35	1.27	.08	.71	.06
8. I would readily accept teaching a student with a learning disability in my physical education classes.	3.97	.96	-.04	.69	-.11
9. I would readily accept teaching a student with a physical disability (e.g., a student who uses a wheelchair or crutches) in my physical education classes.	3.65	1.12	.13	.62	.10
10. I would readily accept teaching a student with an intellectual disability in my physical education classes.	3.66	1.02	.07	.58	.03

Factors	<i>M</i>	<i>SD</i>	1	2	3
Judgements about perceived training needs					
1. To be more effective teaching students with disabilities I need course work that provides me with knowledge about a wide range of disabilities from mild to severe.	4.49	.79	.48	.08	.11
2. To be more effective teaching students with mild disabilities I need exposure (e.g., direct contact experiences) to students with mild disabilities during my professional development.	4.25	.75	.45	.14	-.26
3. To be more effective teaching students with severe disabilities I need exposure (e.g., direct contact experiences) to students with severe disabilities during my professional development.	4.22	.88	.43	.04	-.17
4. To be more effective teaching students with mild to severe disabilities, I need to receive training on activities that includes ideas on lesson planning for a variety of ability levels.	4.45	.75	.75	-.09	.03
5. To be more effective to teaching students with mild to severe disabilities, I need training in behavioral management strategies and conflict resolution beyond what is necessary to teach students without disabilities.	4.32	.76	.76	-.05	.13
6. To be more effective teaching students with mild to severe disabilities I need assistance from others (e.g., adapted physical education teacher, special education teacher, peer tutors).	4.39	.78	.67	-.17	-.18
% of variance			15.71	13.52	4.90
Cumulative % of explained variance			15.71	29.23	34.13

Correlational Relationship Among Scores on PEJI-A Instrument Dimensions

Multiple approaches were employed to establish evidence of construct validity for the PEJI-A including determining the “correlations between a measure of the construct” (Crocker & Algina, 2008, p. 231). More specifically, a Pearson correlation analysis was conducted to determine the correlation between the items within subscales 2 and 3 and a low positive relationship between the 2 subscales, $r = .31, p < .001$, was found.

Exploratory Factor Analysis

The final approach for establishing evidence of construct validity for the PEJI-A was to conduct an EFA. The EFA was conducted to understand if the PEJI-A items factored responses explain the common subscales or dimension (Crocker & Algina, 2008; Field, 2018; Hodge, Murata, & Kozub, 2002). More specifically, the PEJI-A’s 16 Likert-scale items were used to estimate dimensions of inclusion (i.e., inclusion, acceptance, and perceived training needs) with the PI determining the correlational relationship among scores on the three dimensions (Fabrigar & Wegener, 2011). Based on the EFA, the total variance for the 16 PEJI-A items explains 34.13% of the variance on the three factors (i.e., inclusion, acceptance, and perceived training needs). Pattern coefficients for the first factor (i.e., inclusion) ranged from $-.17$ to $.76$, the second factor (i.e., acceptance) ranged from $-.24$ to $.71$, and third factor (i.e., perceived training) ranged from $-.26$ to $.44$. Table 4 shows the results of the factor analysis including the descriptive statistics for the three dimensions of inclusion represented in the PEJI-A.

Analysis of PEJI-A Dimensions Based on Gender and Educational Background

Two *t*-test analyses were used to compare the responses to the PEJI-A subscales and the independent variables of gender and educational background (i.e., participants who were trained as physical education teachers, participants who were trained as general education teachers

qualified to teach physical education in Angola). Like the findings of Hodge et al. (2013), the reliability of subscale 1 (inclusion dimension) was determined to be low. As such, the independent *t*-test analyses were only conducted for subscales 2 and 3. For subscale 2, males ($M = 3.55, SD = .86$) and females ($M = 3.63, SD = .84$) reported similar levels of acceptance of students with disabilities, $t(230) = 1.05, p = .60, d = .14$. For subscale 3, males ($M = 4.37, SD = .50$) and females ($M = 4.30, SD = .64$) also reported similar perceived training needs, $t(230) = .89, p = .12, d = .12$.

Specific to educational background, participants trained as physical education teachers ($M = 3.58, SD = .67$) reported similar levels of acceptance of students with disabilities on subscale 2 (acceptance of students with disabilities dimension) when compared to participants trained as general education teachers ($M = 3.76, SD = .83$), $t(197) = -1.39, p = .10, d = -.22$. In subscale 3 (perceived training needs dimension), participants trained as physical education teachers ($M = 4.36, SD = .52$) reported similar perceived training needs to that of participants trained as general education teachers ($M = 4.34, SD = .52$), $t(196) = .24, p = .76, d = .04$.

Analysis of PEJI-A Dimensions Based on Teaching Experience

A correlation analysis was conducted to determine the relationship between the items within subscales 2 and 3 and the independent variable of years of experience teaching students with disabilities. The results for both subscale 2 ($r = .11, p = .01$, and $d = .01$) and subscale 3 ($r = -.03, p = .01, d > .01$) yielded very low correlations. Therefore, it was concluded that there is no relationship between years of teaching experience and scores on the subscales specific to level of acceptance of students with disabilities, or perceived training needs.

Summary

In summary, 237 elementary classroom and secondary physical education teachers from three provinces of Angola participated in the current study to investigate the psychometric properties of the PEJI-A. The results of the analyses establishing reliability and evidence of construct validity were used to determine that the PEJI-A is not valid and reliable as a comprehensive instrument.

Based on the results of the reliability analysis, EFA, and Pearson correlation analysis, the first subscale of the PEJI-A (specific to the dimension of inclusion) was not deemed to be valid and reliable; only the second and third subscales (specific to the dimension of acceptance of students with disabilities and perceived training needs) were deemed to be valid and reliable. As such, additional statistical analyses were limited to subscale 2 (acceptance of students with disabilities dimension) and subscale 3 (perceived training needs dimension). When examined by gender or educational background (those with specific physical education teacher training versus those without), no statistically significant difference was reported in the participants' responses to subscales 2 or subscale 3. When the participants' years of teaching experience were examined in relation to participant responses on the second and third subscale, no relationships were reported.

CHAPTER V

DISCUSSION

The purpose of this investigation was to examine the psychometric properties of the PEJI-A. Similar to other validation studies on the PEJI conducted in the United States of America (Hodge, Murata, & Kozub, 2002), Japan (Hodge et al., 2013), and Brazil (Hodge et al., 2015), the principal investigator aimed to establish evidence of reliability and construct validity for the instrument with a specific teacher population; in this case, Angolan teachers who were trained and responsible for teaching physical education. This chapter is organized in the following sections: (a) discussion of the findings per research question, (b) implications for future investigations, (c) limitations of the study, and (d) conclusions.

Discussion of the Findings

The current study was guided by two research questions, which are: (a) Does the PEJI-A demonstrate evidence of reliability? and (b) Does the PEJI-A demonstrate evidence of construct validity? The findings of this investigation will be discussed in relation to each of the research questions.

Research Question 1: Evidence of Reliability

As a part of the process of establishing the validity of the PEJI-A, the PI had to first establish evidence of reliability. One of the most common ways to estimate the reliability of measures is Cronbach's α , also known as coefficients alpha, which verified the internal consistency of the PEJI-A scale (Bollen, 1989; Cronbach, 1955; DeVellis & Thorpe, 2022). Values for Cronbach's α range from 0 to 1 and are evaluated from unacceptable to excellent (George & Mallery, 2003; Gliem & Gliem, 2003) with .70 set as the minimum reliability acceptable for a research instrument (Nunnally, 1978). Using this minimum of $\alpha \geq .70$, it was

determined that the reliability for the PEJI-A subscale 1 (i.e., judgements about inclusion versus exclusion) was unacceptable and that the items in the subscale specific to inclusion versus exclusion did not correlate. The PEJI-A subscale 1, addressing “judgments that comprise the inclusion philosophy” (Hodge, Murata, & Kozub, 2002), was therefore deemed not reliable. Interestingly, reliability estimates for subscale 1 from previous studies conducted in Brazil, Japan, and the United States were also below the minimum acceptable level of $\alpha \geq .70$ (Hodge et al., 2015; Hodge et al., 2013; Hodge, Murata, & Kozub, 2002). It appears that this subscale needs to be modified to adequately address the Angolan educational context if the statements are to reliably measure physical educators’ judgements about inclusion in Angola. It is essential to understand that the movement for including students with disabilities in Angola is recent. Though the Angola government, through the Ministry of Education, has been working to improve the awareness and attitudes of the school personnel toward the inclusion of students with disabilities, the Angolan cultural values about inclusion versus exclusion do not seem to reflect those from the United States, where the instrument was initially created. Therefore, the PEJI-A subscale 1 should be revised to more clearly address the dimension of inclusion within the cultural context of Angola or be removed from the instrument as it is not reliable.

In contrast, the remaining PEJI-A subscales specific to the acceptance of students with disabilities and perceived training needs were deemed reliable, with Cronbach’s alpha values of .81 and .79, respectively. These findings were consistent with previous studies (Hodge et al., 2015; Hodge et al., 2013; Hodge, Murata, & Kozub, 2002), and suggest that the PEJI-A reliably measures the physical educators’ acceptance of students with disabilities and perceived training needs specific to teaching students with disabilities. While deemed reliable, the PEJI-A items that address students with severe disabilities in the last two subscales should be considered for

revision as students with severe disabilities do not currently attend regular education schools in Angola where the physical educators teach. Alternatively, the definition for students with severe disabilities could be revised to more appropriately reflect the population that the Angolan teachers serve within the schools, and for which their judgements are being measured.

Research Question 2: Evidence of Construct Validity

The second research question was designed to determine if the PEJI-A demonstrated evidence of construct validity. To answer this question, an EFA was conducted to determine if the factors in the data were theoretically interpretable (Hooper, 2012). This statistical procedure was used to observe the number and nature of latent variables (factors/dimensions) from the items, and whether they correlate (Bollen, 1989; Crocker & Algina, 2008; Field, 2018). It was determined from the results of the EFA that there was poor factorial evidence of construct validity for the PEJI-A as a comprehensive instrument, with the low variance explained percentage reflecting a weak relationship between the items. In a factor analysis, the “higher the percentage of the total variance explained by the factor...the better the factor analysis does in accounting for the variance in the variables being analyzed” (Tinsley & Tinsley, 1987, p. 421). When the analysis of the factors explains less than 55% of the variance, researchers need to be cautious (Tinsley & Tinsley, 1987). Within the current study, the total variance explained by PEJI-A's factors was only 34%, meaning the variables are not inter-related with the factors (Yong & Pearce, 2013), or the items do not represent the same construct (Watson, 2017).

Evidence of Construct Validity for PEJI-A Subscale 1

Specific to the PEJI-A first subscale (i.e., judgments about inclusion versus exclusion), the items accounted for only 4.9% of the variance for the whole scale and had unacceptable reliability. These findings are similar to the findings of previous studies conducted in Brazil

(Hodge et al., 2015), Japan (Hodge et al., 2013), and USA (Hodge, Murata, & Kozub, 2002). It appears that poor operationalization of the construct has been realized as a threat to the construct validity of the PEJI-A. During the data collection, some participants asked the PI for clarification on the first few questions of the PEJI-A (subscale 1 questions specific to inclusion versus exclusion). The operationalization or understanding of the term inclusion seemed unclear for several of the Angolan teachers that participated in this investigation. According to Field (2018), if the items are not loading in the construct, they should be removed. Further, Peterson et al. (2017) suggested that the items' construct, wording, structure, and content should be revised for clarity to provide a better relationship between the factors loaded and ultimately improve the variance. It was concluded from the findings of the current study that the operationalization of inclusion for the items within the first subscale of the PEJI-A were not defined or presented in a manner that allowed for accurate measurement of the physical educators' judgements. To increase the level of responsiveness, it is essential to adjust the questions from the original instrument (i.e., PEJI) from the first subscale so that the physical education teachers in Angola have a better understanding of the construct (Kimberlin & Winterstein, 2008).

The finding that the PEJI-A subscale 1 demonstrated poor evidence of construct validity may be due to identified challenges with local knowledge about inclusive education that exist in many African nations (Ohajunwa, 2022). It may be that the teachers in the current study understood the meaning of inclusion but were unclear about how inclusive practices can be applied in their local context and in responding to the question in subscale 1. Researchers have agreed that inclusion and inclusive education are terms that need to be discussed and clarified among school personnel in accordance with each country's history and cultural context (Nugroho et al., 2018; Ohajunwa, 2022). Ohajunwa (2022) suggested that Africa must find meaning

according to its cultural values. Specific to Angola, most teachers who provide physical education classes have not yet been trained in inclusion or inclusive education issues in general education schools (Gomes et al., 2022). Therefore, the first subscale of the PEJI-A should be removed, or its items revised to reflect the Angolan educational context.

Evidence of Construct Validity for PEJI-A Subscales 2 and 3

Examination of the strength of the relationship between the scores in the EFA for both the second and third PEJI-A subscales (Kimberlin & Winterstein, 2008) provides evidence of construct validity; and therefore, the constructs from the original work of Hodge et al. (2002). However, it was noticed in the EFA's correlation matrix that item number 13, related to students with severe disabilities, did cross load with the first factor, so it should be considered for revision. This cross loading may be due to Angolan teachers' limited experience working with students with severe disabilities in the general education system of Angola (Gomes et al., 2022). The elementary classroom teachers and secondary physical education teachers who served as participants for this investigation do not typically teach with students with severe disabilities because those students attend special education schools in Angola rather than the general education schools.

One of the premises of inclusion or inclusive education is the level of acceptance of students with disabilities by their teachers (Salamanca Declaration, UNESCO & the Ministry of Education and Science of Spain, 1994), which is central to the judgements in the second and third subscales of the PEJI-A. A researcher from Uganda stated, "inclusive education requires teacher educators to accept the responsibility for preparing students [future teachers] who can support all children to learn and feel a sense of belonging" (Eron, 2018, p. 119). Despite this notion, African authors (e.g., Gadour, 2018; Juma, 2018) have reported that the inclusion of

students with disabilities in general education schools, commonly referred to as “mainstream” schools, has not been realized. Researchers (e.g., Chitiyo et al., 2019; Nketsia, 2018; Odongo, 2012) have reported that teachers in Africa (i.e., teachers from Namibia, Zimbabwe, Malawi, Kenya) are accepting of students with disabilities in general education schools; however, they lack the skills and knowledge to work with such students. In general, teachers from general education schools in Africa have reported insufficient training (pre-service and inservice training) in skills to teach in general education classrooms (Mpu & Adu, 2021). Similar concerns were expressed by Ethiopian physical educators, who reported having a great need for professional development related to physical education for students with disabilities, but no access to such professional preparation or development (Kentiba, 2015). Specific to physical educators in Angola, special education administrators have indicated that physical education teachers are unprepared to work with students with disabilities in special schools and general education schools (Gomes et al., 2022). The finding of evidence for the construct validity of the second and third subscale of the PEJI-A is promising given this well-documented need for training specific to physical education for students with disabilities across Africa.

Evidence of Construct Validity: Judgments About Acceptance of Students With Disabilities Examined by Gender

Within the current investigation, evidence of construct validity was established by examining the judgements about the acceptance of students with disabilities based on the gender of the teacher (Crocker & Algina, 2008; Hodge, Murata, & Kozub, 2002). It was expected and found that, regardless of gender, the elementary classroom teachers and secondary physical education teachers had similar levels of acceptance of students with disabilities. This finding, consistent with other research conducted using the PEJI in non-African countries (e.g., Hodge &

Elliott, 2013), represents the first of its kind on the acceptance of students with disabilities in physical education in Angola, which is critical as the acceptance of students with disabilities in general education schools is a well-documented challenge to inclusion in most African nations (e.g., Chitiyo et al., 2019; Pather & Slee, 2018). Researchers have reported both favorable acceptance of students with disabilities (Chhabra et al., 2010; Tomás, 2020) and negative attitudes toward accepting students with disabilities by teachers in general education classrooms (Chavuta et al., 2008; Haitembu, 2014). When acceptance of students with disabilities was examined by the gender of the teacher in sub-Saharan Africa, researchers have reported that female teachers are more accepting of teaching students with disabilities in the general education classroom than their male counterparts in Angola (Tomás, 2020) and Ghana (Butakor et al., 2020). Unfortunately, there is a lack of research existing that examines the acceptance of students with disabilities specifically in physical education in Africa. Validation of an instrument such as the PEJI-A appears critical to research on inclusion and the acceptance of students with disabilities in physical education in sub-Saharan Africa.

Evidence of Construct Validity: Judgments About Perceived Training Needs Examined by Gender

The examination of judgements of perceived training needs based on the gender of the teacher revealed evidence of construct validity for the PEJI-A and documented comparable training needs, regardless of gender. Based on the scores reported, it was concluded that both the male and female teachers recognized a need for training specific to teaching students with disabilities in physical education. This finding is consistent with training needs identified in the literature from teachers in general education classrooms across sub-Saharan African (e.g., Chitiyo et al., 2019). Unfortunately, research specific the training needs of physical educators in

African countries, including Angola, is nearly nonexistent (Gomes et al., 2022). Instead, existing literature is focused on the training needs of classroom teachers regarding teaching students with disabilities in general education schools, with limited focus on gender differences.

The finding of similar perceived training needs for males and females in the current investigation is consistent with the research conducted on the perceived training needs of physical educators using the PEJI in Japan (Hodge et al., 2013) and Brazil (Haegele et al., 2018). Teachers of both genders expressed the need for more training specific to teaching students with disabilities. In contrast, researchers investigating the perceived needs of physical education majors in the United States reported that females expressed a greater need and interest in professional development than did their male counterparts (Hodge & Elliott, 2013). Regardless of whether differences were examined based on gender, it appears that physical educators from across the world perceive a need for additional training specific to the inclusion of students with disabilities in general education settings (e.g., Chitiyo et al., 2019; Gomes et al., 2022; Haegele et al., 2018; Hodge & Elliott, 2013; Hodge et al., 2015; Hodge, Murata, & Kozub, 2002; Mpu & Adu, 2012; Odongo, 2012).

Evidence of Construct Validity: Judgments About Acceptance of Students With Disabilities Examined by the Teachers' Educational Background

It was expected that, regardless of educational background of the participants (i.e., those trained as physical education teachers versus those trained as general education classroom teachers), there would be no difference in the teachers' acceptance of the students with disabilities in physical education as measured by the PEJI-A subscale 2. Therefore, the finding of no group difference provides evidence of construct validity for the PEJI-A. It should be noted however that the sample size disparity between the group of teachers trained as physical

education teachers ($n = 53$) versus those trained as general education classroom teachers ($n = 148$) may have contributed to the non-significant finding. This disparity in sample size may have made it difficult to reach statistical power (Sawilowsky & Hillman, 1992) when the t -test analysis was conducted to compare the mean scores between the two groups. As an alternative, Kim (2015) suggests that the effect size be used to quantify the differences between groups, “while a p value has an important meaning in statistical inference, an effect size is expressing a descriptive importance” (p. 329). In this examination of the teachers’ acceptance of the students with disabilities in physical education based on their education background, the actual effect was determined to be small ($d = -.22$) but meaningful in providing evidence of construct validity (Western & Rosenthal, 2003).

Evidence of Construct Validity: Judgments About Perceived Training Needs Examined by the Teachers’ Educational Background

Group differences on perceived training needs specific to teaching with disabilities in physical education (i.e., PEJI-A subscale 3) were expected based the teachers’ educational background (i.e., those trained as physical education teachers versus those trained as general education classroom teachers). However, it was concluded from the t -tests results that the students the teachers had similar perceived training needs—teachers from both educational backgrounds strongly agreed on the need for in-service training. This finding is aligned with the perceptions of Angolan special education administrators, who have reported that in-service training specific to physical education for students with disabilities is non-existent (Gomes et al., 2022). Even though physical education for individuals with disabilities was recognized in special education policy in Angola in 2017 (Diário da República, 2017), training has not yet been

provided to the teachers responsible for providing physical education instruction to students with disabilities.

Evidence of Construct Validity: Correlational Analysis of Teachers' Judgments Examined by Years of Experience Teaching Students With Disabilities

Correlation analyses were performed to examine the relationships between the teachers' years of experience teaching students with disabilities and their subscale totals for the second and third PEJI-A subscales. Specific to the acceptance as measured by the PEJI-A subscale 2, it was expected that there would be a positive relationship between years of experience teaching students with disabilities in physical education and acceptance levels. However, based on the results of the correlation analysis, it was concluded that no relationship exists. This finding contrasts the work of Tomás (2020), who reported higher levels of acceptance from Angolan teachers with more years of teaching experience; but is consistent with the work of Haegele et al. (2018), who reported that Brazilian teachers, regardless of their years of experience teaching students with disabilities, positively accepted them in their physical education classrooms. While the PEJI-A subscale 2 was reported to be reliable, further investigation of the variable of years of experience did not contribute evidence of construct validity.

The last analysis specific to the second research question examined the relationship between is the teachers' years of experience teaching students with disabilities and their judgments about perceived training needs. Given that teachers in Angola receive little to no preservice training specific to physical education for students with disabilities (Gomes et al., 2022), it was expected that no relationship would exist between years of experience teaching students with disabilities and perceived training needs. From the results of the correlation analysis, it was concluded that no relationship exists ($r = -.03$) between years of experience

teaching students with disabilities and perceived training needs. Similar findings were reported by Tomás (2020) in his investigation of the training needs of Angolan general education teachers and are supported by the call from the Angolan Ministry of Education for increased professional development of the teachers from the general education system related to the inclusion of individuals with disabilities in public education schools (Ministério da Educação, 2006; Ministério da Educação, 2015). The current findings do, however, contradict the work of Hodge and Elliott (2013), who reported that participants with more experience teaching students with disabilities perceived a greater need for more and better professional development. The finding of no relationship between years of experience teaching students with disabilities and perceived training needs as expected provides additional evidence of construct validity for the PEJI-A.

Implications for Future Investigations

This investigation examined the psychometric properties of the PEJI-A. In the process of analyzing the data to establish evidence of reliability and construct validity for the PEJI-A, it was concluded that this initial version of the PEJI-A does not demonstrate construct validity for multiple reasons. Based on the results of the EFA, it was determined that items in subscale 1 (i.e., items 2, 3, 4, and 5) did not load together, so this subscale represent the theoretical construct of judgments about inclusion versus exclusion (Crocker & Algina, 2008). In addition, evidence from the *t*-test analysis, correlational analysis, and reliability analysis confirmed that the PEJI-A in its initial version is not acceptable for research use due to a lack of evidence of reliability and construct validity (DeVellis & Thorpe, 2022; George & Mallery, 2003; Gliem & Gliem, 2003). Given these findings, future investigator using the PEJI-A should seek to revise the items in the first subscale to improve the psychometric properties or involve use of just the second and third subscale of the PEJI-A (Field, 2018). Researchers interested in physical

educators' judgements of inclusion versus exclusion must develop new items relevant to the Angolan cultural context (Ohajunwa, 2022). More specifically, feasibility studies should be conducted that qualitatively develop new or revised items followed by studies that test whether the new items accurately measure the construct of inclusion and exclusion in Angola (Crotty, 1988; Lee, 2012).

Future research should also consider revisions that use culturally relevant disability terminology within the items for subscales 2 and 3, even though the items load well and represent the constructs of acceptance of students with disabilities and perceived training needs. For example, selected items in subscale 2 and 3 reference students with severe disabilities, using a definition in the PEJI and the translated PEJI-A that is derived from a US perspective of severe disabilities. Using that definition, students with severe disabilities in Angola only attend special education schools, not general education schools. Consequently, the teachers responsible for teaching physical education in the general education schools in Angola do not have experience teaching students with severe disabilities to draw from when expressing their judgements about their acceptance of or perceived training needs specific to teaching students with severe disabilities. In future investigations, items referencing students with severe disabilities should be removed or the definition of severe disabilities should be revised with guidance of the National Institute for Special Education of the Ministry of Education of Angola.

Another issue specific to this initial version of the PEJI-A relates to the target population. The PEJI, which was translated to develop the PEJI-A, was initially developed for physical education teacher candidates in the United States had completed a bachelor's degree in physical education. Even though elementary teachers in Angola provide physical education to their students, they are not formally trained as physical educators. There is a discrepancy between the

intended target population for the PEJI, and the participant population for current investigation of the PEJI-A. It is important that future investigations include only teachers trained as physical educators and/or physical education teacher candidates (i.e., physical education majors near the completion of their teacher education program).

Additionally, the current context in Angola does not support data collection through online formats or computerized survey. As such, face-to-face data collection is necessary in order to survey Angola's teachers. This, combined with what is known about perceived training needs and access to professional development in Angola and surrounding countries, is recommended that future investigations consider the use of professional development workshops as a means to gather the physical educators together for in-service training, as well as survey administration. Through such methodologies, physical education teachers benefit from in-service training while also contributing to the knowledge base.

Limitations

There are four main limitations for this study that should be acknowledged. First, because there is very limited research on the topic of physical education for students with disabilities in sub-Saharan Africa, including Angola, the PI was not able to use previous research to inform the design of the current investigation. Second, PEJI-A (i.e., initial version of the translated instrument) was not pilot tested with the target population prior to conducting the current investigation. Rather, alternative methods for ensuring establishing face and content validity were used. Third, the overall findings of the current investigation may not be generalizable because participants were not randomly selected. The participants for the current investigation were selected from schools near the city center of Luanda, Benguela, and Lubango, rather than from randomly selected from across the major cities. The PI had financial constraints that did not

allow her to travel to more Angolan provinces or to schools farther away from the city centers. Her reliance on public transportation and walking to access the teachers for data collection may have created a situation of sample bias as teachers were not randomly selected for participation. Fourth, though the demographic questionnaire and the PEJI-A were designed to be completed in less than 30 minutes, time constraints of the teachers may have been a limitation. Data were collected at the schools where the teachers were about to teach or had just finished teaching so their participation time and ultimately responses to the survey may have been impacted. Finally, because the data collection occurred in the teachers' school, it must also be acknowledged that the participants may have marked what they believed the PI, or their school administrator preferred or deemed acceptable for their judgements.

Conclusions

Based on the findings of this study, the present version of the PEJI-A, inclusive of all three subscales, does not demonstrate evidence of reliability and validity. It appears that the PEJI-A needs to be revised with items that better measure the constructs of inclusion consistent with the Angolan educational context. Despite the statistical constraints of the PEJI-A related to subscale 1, it does show promise as a much-needed tool to investigate physical education for students with disabilities in sub-Saharan Africa and address the preservice and in-service training needs of physical educators that are well-documented in the literature.

REFERENCES

- Agyar, E. (2013). Life satisfaction, perceived freedom in leisure and self-esteem: The case of physical education and sport students. *Procedia-Social and Behavioral Sciences*, 93, 2186-2193. <https://doi.org/10.1016/j.sbspro.2013.10.185>
- Ainscow, M. (2020). Promoting inclusion and equity in education: Lessons from international experiences. *Nordic Journal of Studies in Educational Policy*, 6(1), 7-16. <https://doi.org/10.1080/20020317.2020.1729587>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, 52(1), 27-58. <https://doi.org/10.1146/annurev.psych.52.1.27>
- Ajzen, I., & Fishbein, M. (2000). Attitudes and the attitude-behavior relation: Reasoned and automatic processes. *European Review of Social Psychology*, 11(1), 1-33. <https://doi.org/10.1080/14792779943000116>
- Ajzen, I. & Fishbein, M. (1980). Understanding attitudes and predicting social behavior: Attitudes, intentions, and perceived behavioral control. *Prentice Hall*.
- Akelaitis, A. V., & Malinauskas, R. K. (2016). Education of social skills among senior high school age students in physical education classes. *European Journal of Contemporary Education*, 18(4), 381-389. <https://doi.org/10.13187/ejced.2016.18.381>
- Allport, G. W. (1954). *The nature of prejudice*. Addison-Wesley.
- Andersen, L. B., Riddoch, C., Kriemler, S., & Hills, A. (2011). Physical activity and cardiovascular risk factors in children. *British Journal of Sports Medicine*, 45(11), 871-876. <https://doi.org/10.1136/bjsports-2011-090333>

- Anthoine, E., Moret, L., Regnault, A., Sébille, V., & Hardouin, J. B. (2014). Sample size used to validate a scale: A review of publications on newly-developed patient reported outcomes measures. *Health and Quality of Life Outcomes*, 12(1), 1-10.
<https://doi.org/10.1186/s12955-014-0176-2>
- Antonak, R. F. (1988). Methods to measure attitudes toward people who are disabled. In H.E. Yuker (Ed.), *Attitudes toward persons with disabilities* (pp. 109-126). Springer.
- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19-32.
<https://orcid.org/0000-0002-5340-4549>
- Banville, D., Desrosiers, P., & Genet-Volet, Y. (2000). Translating questionnaires and inventories using a cross-cultural translation technique. *Journal of Teaching in Physical Education*, 19(3), 374-387.
- Basha, G. K., & Van Heerden, H. J. (2020). Profile and opinion of people with disability with respect to adapted physical activity participation in Ethiopia. *African Journal of Disability*, 9(1), 1-8. <https://doi.org/10.4102/ajod.v9i0.657>
- Beaton, D., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2007). Recommendations for the cross-cultural adaptation of the DASH & QuickDASH outcome measures. *Institute for Work & Health*, 1(1), 1-45
- Bebetsos, E., Derri, V., Zafeiriadis, S., & Kyrgiridis, P. (2013). Relationship among students' attitudes, intentions and behaviors towards the inclusion of peers with disabilities, in mainstream physical education classes. *International Electronic Journal of Elementary Education*, 5(3), 233-248.

- Bhattacharjee, A. K., Mallick, A., Dey, A., & Bandyopadhyay, S. (2013). Enhanced technique for data cleaning in text file. *International Journal of Computer Science Issues (IJCSI)*, 10(5), 229.
- Block, M. E. (1995). Development and validation of the children's attitudes toward integrated physical education-revised (CAIPE-R) inventory. *Adapted Physical Activity Quarterly*, 12(1), 60-77. <https://doi.org/10.1123/apaq.12.1.60>
- Block, M. E. (2007). *A teacher's guide to including students with disabilities in general physical education*. Brookes Publishing Company.
- Block, M. E., & Obrusnikova, I. (2007). Inclusion in physical education: A review of the literature from 1995-2005. *Adapted Physical Activity Quarterly*, 24(2), 103-124.
- Block, M. E., & Rizzo, T. L. (1995). Attitudes and attributes of physical educators associated with teaching individuals with severe and profound disabilities. *Journal of the Association for Persons with Severe Handicaps*, 20(1), 80-87.
<https://doi.org/10.1177/154079699502000108>
- Block, M. E., Hutzler, Y., Barak, S., & Klavina, A. (2013). Creation and validation of the self-efficacy instrument for physical education teacher education majors toward inclusion. *Adapted Physical Activity Quarterly*, 30(2), 184-205.
<https://doi.org/10.1123/apaq.30.2.184>
- Bölenius, K., Brulin, C., Grankvist, K., Lindkvist, M., & Söderberg, J. (2012). A content validated questionnaire for assessment of self reported venous blood sampling practices. *BMC Research Notes*, 5(1), 1-6. <https://doi.org/10.1186/1756-0500-5-39>
- Bollen, K. A. (1989). *Structural equations with latent variables*. John Wiley & Sons.

- Butakor, P. K., Ampadu, E., & Suleiman, S. J. (2020). Analysis of Ghanaian teachers' attitudes toward inclusive education. *International Journal of Inclusive Education*, 24(11), 1237-1252. <https://doi.org/10.1080/13603116.2018.1512661>
- Camara, B. (1998). *Necessidades Educativas Especiais em Angola*. UNESCO - BRED
- Campos, M. C., Ferreira, J. P., Morais, M., & Rodrigues, G. (2022). Validação da versão Portuguesa da self-efficacy scale for physical education teacher education major toward children with disabilities. *Retos: Nuevas Tendencias En Educación Física, Deporte y Recreación*, (45), 558-565. <https://doi.org/10.47197/retos.v45i0.91868>
- Candell, G. L., & Hulin, C. L. (1986). Cross-language and cross-cultural comparisons in scale translations: Independent sources of information about item nonequivalence. *Journal of Cross-Cultural Psychology*, 17(4), 417-440.
- Carlson, S. A., Fulton, J. E., Lee, S. M., Maynard, L. M., Brown, D. R., Kohl III, H. W., & Dietz, W. H. (2008). Physical education and academic achievement in elementary school: Data from the early childhood longitudinal study. *American Journal of Public Health*, 98(4), 721-727.
- Caro, I., & Stiles, W. B. (1997). Vamos a traducir los MRV (Let's translate the VRM): Linguistic and cultural inferences drawn from translating a verbal coding system from English into Spanish. *Psychiatry*, 60(3), 233-247. <https://doi.org/10.1080/00332747.1997.11024801>

- Cesa, C. C., Sbruzzi, G., Ribeiro, R. A., Barbiero, S. M., de Oliveira Petkowicz, R., Eibel, B., Machado, N. B., Virgens Marques, R. V., Tortato, G., Santos, T. J., Leiria, C., Schaan, B. D., & Pellanda, L. C. (2014). Physical activity and cardiovascular risk factors in children: Meta-analysis of randomized clinical trials. *Preventive Medicine*, 69, 54-62.
<https://doi.org/10.1016/j.ypmed.2014.08.014>
- Chambal, L. A., Rafante, H. C., & Selingardi, S. C. (2015). A Educação especial em Angola, Moçambique e Brasil: Marcos históricos e a política de educação inclusiva das agências multilaterais. *Crítica Educativa*, 1(2), 7-23.
- Chapelle, C. (1998). Construct definition and validity inquiry in SLA research. In L. Bachman & A. Cohen (Eds.), *Interfaces between second language acquisition and language testing research*, (pp. 32-70). Cambridge University Press.
<https://doi.org/10.1017/CBO9781139524711.004>
- Charles, O. O., Cleophas, F., & Gomes, A. M. F. (2020). History of inclusive physical education in Africa. In S. Heck & M. Block (Eds.). *Inclusive physical education around the world: Origins, culture, practices*. Routledge. (118-140) <https://doi.org/10.4324/9780429026294>
- Chavuta, A., Itimu-Phiri, A. N., Chiwaya, S., Sikero, N., & Alindiamao, G. (2008). *Montfort Special Needs Education College and Leonard Cheshire Disability International*. Shire Highlands Education Division – Malawi. Baseline Study Report.
<https://www.eenet.org.uk/resources/docs/Malawi%20baseline%20study.pdf>
- Chhabra, S., Srivastava, R., & Srivastava, I. (2010). Inclusive education in Botswana: The perceptions of school teachers. *Journal of Disability Policy Studies*, 20(4), 219-228.
<https://doi.org/10.1177/1044207309344690>

- Chireshe, R. (2011). Special needs education in-service teacher trainees' views on inclusive education in Zimbabwe. *Journal of Social Sciences*, 27(3), 157-164.
<https://doi.org/10.1080/09718923.2011.11892916>
- Chitiyo, M., Hughes, E. M., Chitiyo, G., Changara, D. M., Itimu-Phiri, A., Haihambo, C., Taukeni, S. G., & Dzenga, C. G. (2019). Exploring teachers' special and inclusive education professional development needs in Malawi, Namibia, and Zimbabwe. *International Journal of Whole Schooling*, 15(1), 28-49.
- Colquhoun, H. L., Levac, D., O'Brien, K. K., Straus, S., Tricco, A. C., Perrier, L., Kastner, M., & Moher, D. (2014). Scoping reviews: Time for clarity in definition, methods, and reporting. *Journal of Clinical Epidemiology*, 67(12), 1291-1294.
<https://doi.org/10.1186/s12874-016-0116-4>
- Combs, S., Elliott, S., & Whipple, K. (2010). Elementary physical education teachers' attitudes towards the inclusion of children with special needs: A qualitative investigation. *International Journal of Special Education*, 25(1), 114-125.
- Comrey, A. L., & Lee, H. B. (1992). *A first course in factor analysis* (2nd ed.). Psychology Press. <https://doi.org/10.4324/9781315827506>
- Cordier, R., Milbourn, B., Martin, R., Buchanan, A., Chung, D., & Speyer, R. (2017). A systematic review evaluating the psychometric properties of measures of social inclusion. *PloS One*, 12(6), e0179109. <https://doi.org/10.1371/journal.pone.0179109>
- Crocker, L., & Algina, J. (2008). *Introduction to classical and modern test theory*. Cengage Learning.
- Cronbach, L. J. (1955). Processes affecting scores on understanding of others' and "assumed similarity." *Psychological Bulletin*, 59, 177-193.

- Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52(4), 281–302.
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Sage. <https://doi.org/10.4324/9781003115700>
- Cyran, M., Kudláček, M., Block, M., Malinowska-Lipień, I., & Zyznawska, J. (2017). Attitudes of teachers towards inclusion of students with disabilities in physical education: Validity of the ATIPDPE-R instrument in Polish cultural context. *Acta Gymnica*, 47(4), 171-179. <https://doi.org/10.5507/ag.2017.020>
- DeVellis, R. F., & Thorpe, C. T. (2022). *Scale development: Theory and applications* (5th ed.). Sage Publications.
- Dew, D. (2008). Construct. In P. J. Lavrakas (Ed.), *Encyclopedia of survey research methods* (pp. 134-135).
- Diário da República de Angola. (2012). Lei nº 21/12 de 30 de Julho. Estabelece a lei da pessoa com deficiência. Luanda.
- Diário da República. (2017). Decreto Executivo nº 305/17. Regulamento interno do Instituto Nacional de Educação Especial. Presidência da República de Angola. Angola.
- Dobosh, M. A. (2017). Survey: Demographic questions. In M. Allen (Ed.), *The SAGE encyclopedia of communication research methods* (1st ed., pp. 1701-1704), SAGE Publications, <https://doi.org/10.4135/9781483381411>
- Doulkeridou, A., Evaggelinou, C., & Kudláček, M. (2010). Components of attitudes toward the inclusion of students with disabilities in physical education in the ATIPDPE-GR instrument for Greek physical educators. *Acta Gymnica*, 40(4), 63-68.

- Drame, E., & Kamphoff, K. (2014). Perceptions of disability and access to inclusive education in West Africa: A comparative case study in Dakar, Senegal. *International Journal of Special Education (IJSE)*, 29(3).
- Dunn, L. M. (1968). Special education for the mildly retarded - Is much of it justifiable? *Exceptional Children*, 35(1), 5-22. <https://doi.org/10.1177/001440296803500101>
- Elangovan, N., & Sundaravel, E. (2021). Method of preparing a document for survey instrument validation by experts. *MethodsX*, 8, 101326. <https://doi.org/10.1016/j.mex.2021.101326>
- Eron, L. (2018). In-Service tutor development in support of inclusive education: Lessons from partnerships between university and organizations. In S. Pather & R. Slee (Eds.), *Challenging inclusive education policy and practice in Africa*. (pp. 118-128). BRILL. <https://doi.org/10.1163/9789004391505>
- Fabrigar, L. R., & Wegener, D. T. (2011). *Exploratory factor analysis*. Oxford University Press.
- Fairclough, S., & Stratton, G. (2005). Physical activity levels in middle and high school physical education: A review. *Pediatric Exercise Science*, 17(3), 217-236.
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage Publications.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Addison-Wesley.
- Folsom-Meek, S. L., Nearing, R. J., Groteluschen, W., & Krampf, H. (1999). Effects of academic major, gender, and hands-on experience on attitudes of preservice professionals. *Adapted Physical Activity Quarterly*, 16(4), 389-402.

- Fournidou, I., Kudlacek, M., & Evagellinou, C. (2011). Attitudes of in-service physical educators toward teaching children with physical disabilities in general physical education classes in Cyprus. *European Journal of Adapted Physical Activity*, 4(1).
<https://doi.org/10.5507/euj.2011.002>
- Fowler, S. B., & Lapp, V. (2019). Sample size in quantitative research: Sample size will affect the significance of your research. *American Nurse Today*, 14(5), 61-63.
- Gadour, A. (2018). Challenging inclusive education policy and practice in Libya. In S. Pather & R. Slee (Eds.), *Challenging inclusive education policy and practice in Africa* (pp. 15-30) BRILL. <https://doi.org/10.1163/978900439150>
- Garousi, V., Rainer, A., Lauvås Jr, P., & Arcuri, A. (2020). Software-testing education: A systematic literature mapping. *Journal of Systems and Software*, 165, 110570.
<https://doi.org/10.1016/j.jss.2020.110570>
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference, 11.0 update* (4th ed.). Allyn & Bacon
- Gitner, F. J. (1998). The New Americans Program: Twenty-one years of successful partnerships serving diverse and changing communities. *Reference & User Services Quarterly*, 38(2), 143-145.
- Gizaw, Z., Yalew, A. W., Bitew, B. D., Lee, J., & Bisesi, M. (2022). Development and validation of questionnaire to assess exposure of children to enteric infections in the rural northwest Ethiopia. *Scientific Reports*, 12(1), 1-1.
<https://doi.org/10.1038/s41598-022-10811-x>

- Gjersing, L., Caplehorn, J. R., & Clausen, T. (2010). Cross-cultural adaptation of research instruments: Language, setting, time and statistical considerations. *BMC Medical Research Methodology*, 10(1), 1-10. <https://doi.org/10.1186/1471-2288-10-13>
- Gliem, J. A. & Gliem, R. R. (2003). *Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales*. [Paper presentation]. 2003 Midwest Research to Practice Conference in Adult, Continuing, and Community Education, Columbus, OH, United States 82-88.
- Gomes, A., Dillon, S., Mann, M., Dunlap, K., Cox, E., Yang, Q., & Silliman-French, L. (2022). *Angolan special education administrators' perceptions about inclusion of students with disabilities in physical education: A pilot study*. Poster presented at the Texas Woman's University Student Creative Arts and Research Symposium, Texas, Denton
- Gooding, P. (2015). Navigating the 'flashing amber lights' of the right to legal capacity in the United Nations convention on the rights of persons with disabilities: Responding to major concerns. *Human Rights Law Review*, 15(1), 45-71. <https://doi.org/10.1093/hrlr/ngu045>
- Guillemin, F., Bombardier, C., & Beaton, D. (1993). Cross-cultural adaptation of health-related quality of life measures: Literature review and proposed guidelines. *Journal of Clinical Epidemiology*, 46(12), 1417-1432. [https://doi.org/10.1016/0895-4356\(93\)90142-n](https://doi.org/10.1016/0895-4356(93)90142-n)
- Haegele, J. A., Hodge, S. R., & Shapiro, D. R. (Eds.). (2020). *Routledge handbook of adapted physical education*. Routledge. <https://doi.org/10.4324/9780429052675>
- Haegele, J. A., Hodge, S., Filho, P. J. B. G., & de Rezende, A. L. G. (2018). Brazilian physical education teachers' attitudes toward inclusion before and after participation in a professional development workshop. *European Physical Education Review*, 24(1), 21-38.

- Haitembu, R. K. (2014). *Assessing the provision of inclusive education in the Omusati region*. [Master's Thesis, The University of Namibia].
- Heck, S. & Block, M. (2020). Why read another book on inclusive physical education? In S. Heck & M. Block (Eds.). *Inclusive physical education around the world: Origins, culture, practices*. (pp. 1-6) Routledge. <https://doi.org/10.4324/9780429026294>
- Hendricson, W. D., Jon Russell, I., Prihoda, T. J., Jacobson, J. M., Rogan, A., Bishop, G. D., & Castillo, R. (1989). Development and initial validation of a dual-language English–Spanish format for the arthritis impact measurement scales. *Arthritis & Rheumatism: Official Journal of the American College of Rheumatology*, 32(9), 1153-1159.
- Herdman, M., Fox-Rushby, J., & Badia, X. (1998). A model of equivalence in the cultural adaptation of HRQoL instruments: The universalist approach. *Quality of life Research*, 7(4), 323-335. <https://doi.org/10.1023/a:1024985930536>
- Hodge, S. R., & Elliott, G. (2013). Physical education majors' judgments about inclusion and teaching students with disabilities. *Journal of Education and Training Studies*, 1(1), 151–157. <https://doi.org/10.11114/jets.v1i1.88>
- Hodge, S. R., & Jansma, P. (2000). Physical education majors' attitudes toward teaching students with disabilities. *Teacher Education and Special Education*, 23(3), 211-224. <https://doi.org/10.1177/088840640002300304>
- Hodge, S. R., Davis, R., Woodard, R., & Sherrill, C. (2002). Comparison of practicum types in changing preservice teachers' attitudes and perceived competence. *Adapted Physical Activity Quarterly*, 19(2), 155-171. <https://doi.org/10.1123/apaq.19.2.155>

- Hodge, S. R., Gutierrez Filho, B., José, P., Haegele, J. A., & Kozub, F. M. (2015). Underlying dimensions of the "physical educators' judgments about inclusion" instrument: Brazilian-Version. *Journal of Curriculum and Teaching*, 4(2).
<https://doi.org/10.5430/jct.v4n2p96>
- Hodge, S. R., Murata, N. M., & Kozub, F. M. (2002). Physical educators' judgments about inclusion: A new instrument for preservice teachers. *Adapted Physical Activity Quarterly*, 19(4). <https://doi.org/10.1123/apaq.19.4.435>
- Hodge, S. R., Sato, T., Mukoyama, T., & Kozub, F. M. (2013). Development of the physical educators' judgments about inclusion instrument for Japanese physical education majors and an analysis of their judgments. *International Journal of Disability, Development and Education*, 60(4), 332-346. <https://doi.org/10.1080/1034912X.2013.846468>
- Hoe, S. L. (2008). Issues and procedures in adopting structural equation modeling technique. *Journal of Applied Quantitative Methods*, 3, 76-83.
https://ink.library.smu.edu.sg/sis_research/5168
- Holden, R. B. (2010). Face validity. In I. B. Weiner, & W. E. Craighead (Eds.), *The corsini encyclopedia of psychology* (4th ed., pp. 1-2). Wiley.
<https://doi.org/10.1002/9780470479216.corpsy0341>
- Hooper, D. (2012). Exploratory factor analysis. In Chen, H. (Ed.), *Approaches to quantitative research – theory and its practical application: A guide to dissertation students*. Oak Tree Press.
- Hughes, G. D. (2009). The impact of incorrect responses to reverse-coded survey items. *Research in the Schools*, 16(2). <https://psycnet.apa.org/record/2010-08001-009>

Hutzler, Y. (2003). Attitudes toward the participation of individuals with disabilities in physical activity: A review. *Quest*, 55(4), 347–373.

<https://doi.org/10.1080/00336297.2003.10491809>

Individuals with Disabilities Education Act. (2022, June 15). Sec. 300.8 Child with a disability.

<https://sites.ed.gov/idea/regs/b/a/300.8>

Instituto Nacional de Estatística (2014). Resultados definitivos. Recenseamento geral da população e habitação - 2014. Governo de Angola. Luanda.

Ju, A., Teixeira-Pinto, A., Tong, A., Smith, A. C., Unruh, M., Davison, S. N., Dapuetto, J, Dew, M. A., Fluck, R., Germain, M. J., Jassal, S. V., Obrador, G. T., O'Donoghue, O, Viecegli, A. K., Strippoli, G., Ruospo, M., Timofte, D., Sharma, A., Au, E., . . . & Rutherford, C. (2020). Validation of a core patient-reported outcome measure for fatigue in patients receiving hemodialysis: The SONG-HD fatigue instrument. *Clinical Journal of the American Society of Nephrology*, 15(11), 1614-1621.

<https://doi.org/10.2215/CJN.05880420>

Juma, S. (2018). Towards inclusive education development: Addressing the gap between rhetoric and practice in Zanzibar schools. In S. Pather & R. Slee (Eds.), *Challenging inclusive education policy and practice in Africa* (pp. 51-68). BRILL.

<https://doi.org/10.1163/9789004391505>

Karagiannis, A., Stainback, W., & Stainback, S. (1996). Rationale for inclusive schooling. In S. B. Stainback & W. C. Stainback (Eds.), *Inclusion: A guide for educators* (pp. 3-15). Paul H Brookes Publishing.

- Kentiba, E. (2015). Challenges and problems affecting the participation of disabled children in physical education and extracurricular activities. *International Journal of Sport Studies*, 5(7), 791-810, 2015.
- Kim, H. Y. (2015). Statistical notes for clinical researchers: Effect size. *Restorative Dentistry & Endodontics*, 40(4), 328–331. <https://doi.org/10.5395/rde.2015.40.4.328>
- Kimberlin, C. L., & Winterstein, A. G. (2008). Validity and reliability of measurement instruments used in research. *American Journal of Health-System Pharmacy*, 65(23), 2276-2284. <https://doi.org/10.2146/ajhp070364>
- Kreimeyer, K., Menschik, D., Winiecki, S., Paul, W., Barash, F., Woo, E. J., Alimchandani, M., Arya, D., Zinderman, C., Forshee, R., & Botsis, T. (2017). Using probabilistic record linkage of structured and unstructured data to identify duplicate cases in spontaneous adverse event reporting systems. *Drug Safety*, 40, 571-582.
- Kudláček, M. (2001). *An attitude toward inclusion instrument based on the theory of planned behavior for prospective Czech physical educators*. [Doctoral dissertation, Texas Woman's University]. ProQuest.
- Kudláček, M., Válková, H., Sherrill, C., Myers, B., & French, R. (2002). An inclusion instrument based on planned behavior theory for prospective physical educators. *Adapted Physical Activity Quarterly*, 19(3), 280-299. <https://dx.doi.org/10.1123/apaq.19.3.280>
- Kuyini, A. B., & Desai, I. (2007). Principals' and teachers' attitudes and knowledge of inclusive education as predictors of effective teaching practices in Ghana. *Journal of Research in Special Educational Needs*, 7(2), 104-113. <https://doi.org/10.1111/j.1471-3802.2007.00086.x>

- Kyriazos, T. A. (2018). Applied psychometrics: Sample size and sample power considerations in factor analysis (EFA, CFA) and SEM in general. *Psychology*, 9(08), 2207.
<https://doi.org/10.4236/psych.2018.98126>
- Lang, R. (2009). The United Nations Convention on the right and dignities for persons with disability: A panacea for ending disability discrimination? *ALTER, European Journal of Disability Research*, 3(3), 266-285. <https://doi.org/10.1016/j.alter.2009.04.001>
- Lee, C. J. G. (2012). Reconsidering constructivism in qualitative research. *Educational Philosophy and Theory*, 44(4), 403-412.
- Lieberman, L. J., Houston-Wilson, C., & Kozub, F. M. (2002). Perceived barriers to including students with visual impairments in general physical education. *Adapted Physical Activity Quarterly*, 19(3), 364-377. <https://doi.org/10.1123/apaq.19.3.364>
- Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology*, 22(140), 5-55
- Litwin, M. S., & Fink, A. (1995). *How to measure survey reliability and validity* (Vol. 7). Sage.
- MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological Methods*, 4(1), 84.
- Mahapatra, I., Nagarajappa, R., Satyarup, D., & Mohanty, S. (2020). Considerations in questionnaire development: A review. *Indian Journal of Forensic Medicine & Toxicology*, 14(4). <https://doi.org/10.37506/ijfmt.v14i4.13054>
- Marsh, H. W., & Hocevar, D. (1985). Application of confirmatory factor analysis to the study of self-concept: First-and higher order factor models and their invariance across groups. *Psychological Bulletin*, 97(3), 562.

- Martin, K., & Kudláček, M. (2010). Attitudes of pre-service teachers in an Australian University towards inclusion of students with physical disabilities in general physical education programs. *European Journal of Adapted Physical Activity*, 3(1).
<https://doi.org/10.5507/euj.2010.003>
- Ministério da Educação (2006). Plano estratégico de desenvolvimento da educação especial para o período 2007 – 2015. Instituto Nacional para a Educação Especial. Luanda.
- Ministério da Educação (2015). Projecto da política nacional de educação especial orientada para a inclusão educational. República de Angola.
- Mosier, C. I. (1947). A critical examination of the concepts of face validity. *Educational and Psychological Measurement*, 7(2), 191-205.
- Mpu, Y., & Adu, E. O. (2021). The challenges of inclusive education and its implementation in schools: The South African perspective. *Perspectives in Education*, 39(2), 225-238.
<https://doi.org/10.18820/2519593X/pie.v39.i2.16>
- Mtonga, T., Lungu, E., Kalimaposo, K., & Mandyata, J. (2021). Exclusion in inclusion: Experiences of learners with albinism in selected mainstream and special schools in Zambia. *European Journal of Special Education Research*, 7(1).
<https://doi.org/10.46827/ejse.v7i1.3638>
- Murata, N. M., Hodge, S. R., & Little, J. R. (2000). Students' attitudes, experiences, and perspectives on their peers with disabilities. *Clinical Kinesiology*, 54(3), 59-66.
- Murcia, J. A. M., Coll, D., & Pérez, L. M. R. (2009). Self-determined motivation and physical education importance. *Human Movement*, 10(1), 5-11.

- Ndombele, E. D. (2022). A influência das línguas bantu no desenvolvimento do léxico de português em Angola. *Revista de Estudos de Português Língua Internacional*, 2(1), 75-88.
- Nketsia, W. (2018). Inclusive education policy and practice in Ghana: Air castle or realistic goal? In S. Pather & R. Slee (Eds.), *Challenging inclusive education policy and practice in Africa* (pp. 69-86). BRILL. <https://doi.org/10.1163/9789004391505>
- Nugroho, K., Carden, F. & Antlov, H., (2018). *Local knowledge matters: Power, context, and policymaking in Indonesia*. Policy Press.
- Nunnally, J. C. (1978). *Psychometric theory*. (2nd ed.). McGraw-Hill.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill. <https://doi.org/10.1177/014662169501900308>
- Obrusnikova, I. (2008). Physical educators' beliefs about teaching children with disabilities. *Perceptual and Motor Skills*, 106(2), 637-644.
- Obrusnikova, I., Block, M., & Dillon, S. (2010). Children's beliefs toward cooperative playing with peers with disabilities in physical education. *Adapted Physical Activity Quarterly*, 27(2), 127-142. <https://doi.org/10.1123/apaq.27.2.127>
- Odom, L. R., & Henson, R. K. (2002). Data screening: Essential techniques for data review and preparation. <https://files.eric.ed.gov/fulltext/ED466781.pdf>
- Odongo, G. (2012). Examining the attitudes, perceptions, and concerns of Kenyan teachers toward the inclusion of children with disabilities in general education classrooms. [Doctoral dissertation, Texas Tech University]. Google Scholar.

- Ogu, O. C., Umunnah, J. O., Nwosu, K. C., & Gloria, I. C. (2017). Perception of physical educators toward teaching students with disabilities in an inclusive class setting in Nigeria. *Palaestra*, 31(1). <https://js.sagamorepub.com/palaestra/article/view/8216>
- Ohajunwa, C. O. (2022). Local knowledge in inclusive education policies in Africa: Informing sustainable outcomes. *African Journal of Disability* (Online), 11, 1–8. <https://doi.org/10.4102/ajod.v11i0.941>
- Onyewadume, L.U. (1999). Perspectives of adapted physical education in Africa. In Amusa, L.O., Teriola, A.L., & Onyewadume, L.U. (Ed.), *Physical Education and Sport in Africa* (141-156). Nigeria.
- Orcher, L. (2016). *Conducting research: Social and behavioral science methods* (2nd ed.). Pyrczak Publishing. <https://doi.org/10.4324/9781315266626>
- Orlić, A., Pejčić, B., Lazarević, D., & Milanović, I. (2016). The predictors of students' attitude towards inclusion of children with disabilities in physical education classes. *Fizička Kultura*, 70(2), 126-134. <https://doi.org/10.5937/fizkul1602126O>
- O'Rourke, T. W. (2000). Techniques for screening and cleaning data for analysis. *American Journal of Health Studies*, 16(4), 205.
- Özer, D., Nalbant, S., Ağlamış, E., Baran, F., Samut, P. K., Aktop, A., & Hutzler, Y. (2013). Physical education teachers' attitudes towards children with intellectual disability: The impact of time in service, gender, and previous acquaintance. *Journal of Intellectual Disability Research*, 57(11), 1001-13. <https://doi.org/10.1111/j.1365-2788.2012.01596.x>

- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., . . . & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *Systematic Reviews*, *10*(1), 1-11.
<https://doi.org/10.1186/s13643-021-01626-4>
- Pather, S., & Slee, R. (2018). *Challenging inclusive education policy and practice in Africa*. BRILL.
- Perneger, T. V., Courvoisier, D. S., Hudelson, P. M., & Gayet-Ageron, A. (2015). Sample size for pre-tests of questionnaires. *Quality of Life Research*, *24*(1), 147-151.
<https://doi.org/10.1007/s11136-014-0752-2>
- Peterson, C. H., Peterson, N. A., & Powell, K. G. (2017). Cognitive interviewing for item development: Validity evidence based on content and response processes. *Measurement and Evaluation in Counseling and Development*, *50*(4), 217-223.
<https://doi.org/10.1080/07481756.2017.1339564>
- Place, K., & Hodge, S. R. (2001). Social inclusion of students with physical disabilities in general physical education: A behavioral analysis. *Adapted Physical Activity Quarterly*, *18*(4), 389-404. <https://doi.org/10.1123/apaq.18.4.389>
- Presidência da República (1981). Decreto-lei nº 40 - Estatuto Orgânico do Ministério da Educação. Angola.
- República de Angola (1979). Ministério da Educação. Circular nº 56 de 19 de Setembro de 1979. Luanda, Ministério da Educação.

- República de Angola (2016). Implementação da Convenção sobre os Direitos das Pessoas com Deficiência. Relatório Inicial.
- <http://www.servicos.minjusdh.gov.ao/files/RELATORIOFINALCPCD.pdf>
- República de Angola. (2001). Lei de Bases do Sistema de Educação.
- http://welvitchia.com/SESA_files/Lei%2013_01_Lei%20de%20Bases%20do%20Sistema%20de%20Educacao%20de%20Angola%202001.pdf
- República de Angola. (2010) Constituição da República of Angola.
- <http://www.wipo.int/edocs/lexdocs/laws/pt/ao/ao001pt.pdf>
- República de Angola. (2015). Plano nacional de desenvolvimento da educação. Educar Angola 2030. Relatório Final. Angola.
- Rizzo, T.L. (1983). *Attitude of physical educators toward teaching*. [Doctoral dissertation, University of Illinois at Urbana-Champaign]. ProQuest.
- Rizzo, T. L. (1984). Attitudes of physical educators toward teaching handicapped pupils. *Adapted Physical Activity Quarterly*, 1(4), 267-274.
- Rizzo, T. L., & Vispoel, W. P. (1991). Physical educators' attributes and attitudes toward teaching students with handicaps. *Adapted Physical Activity Quarterly*, 8(1).
- <https://doi.org/10.1123/APAQ.8.1.4>
- Rizzo, T. L., & Wright, R. G. (1988). Physical educators' attitudes toward teaching students with handicaps. *Mental Retardation*, 26(5), 307.
- Rubio, D. M., Berg-Weger, M., Tebb, S. S., Lee, E. S., & Rauch, S. (2003). Objectifying content validity: Conducting a content validity study in social work research. *Social Work Research*, 27(2), 94-104. <https://doi.org/10.1093/swr/27.2.94>
- [salamanca-statement-and-framework.pdf](#)

- Sangoseni, O., Hellman, M., & Hill, C. (2013). Development and validation of a questionnaire to assess the effect of online learning on behaviors, attitudes, and clinical practices of physical therapists in the United States regarding evidenced-based clinical practice. *Internet Journal of Allied Health Sciences and Practice*, 11(2), 7.
<https://doi.org/10.46743/1540-580X/2013.1439>
- Sassuco, D. P. (2016). Pistas essenciais para um português de Angola. In I. B. Leite & C. G. Severo (Eds.), *Kadila: culturas e ambientes. Diálogos Brasil-Angola* (pp. 199-218). Blucher. <https://doi.org/10.5151/9788580392111-13>
- Sawilowsky, S. S., & Hillman, S. B. (1992). Power of the independent samples *t* test under a prevalent psychometric measure distribution. *Journal of Consulting and Clinical Psychology*, 60(2), 240. <https://doi.org/10.1037/0022-006X.60.2.240>
- Severo, C. G., Sassuco, D. P., & Bernardo, E. P. J. (2019). Português e línguas bantu na educação angolana: Da diversidade como “problema”. *Línguas e Instrumentos Linguísticos*, (43), 290-307. <https://doi.org/10.20396/lil.v0i43.8658374>
- Simui, F., Kasonde-Ngandu, S., Cheyeka, A. M., & Makoe, M. (2019). Lived disablers to academic success of the visually impaired at the university of Zambia, Sub-Saharan Africa. *Journal of Student Affairs in Africa*, 7(2), 41-56.
<https://doi.org/10.24085/jsaa.v7i2.3824>
- Singh, K., Junnarkar, M., & Kaur, J. (2016). *Measures of positive psychology, development and validation*. Springer.

- Society of Health and Physical Educators of America. (2022, April 23). *The essential components of physical education*.
<https://www.shapeamerica.org/uploads/pdfs/TheEssentialComponentsOfPhysicalEducation.pdf>
- Solans-Domènech, M., MV Pons, J., Adam, P., Grau, J., & Aymerich, M. (2019). Development and validation of a questionnaire to measure research impact. *Research Evaluation*, 28(3), 253-262. <https://doi.org/10.1093/reseval/rvz007>
- South African History Online. (2018, September 12). The Angolan Civil War (1975-2002): A brief history. <https://www.sahistory.org.za/article/angolan-civil-war-1975-2002-brief-history>
- Stern, C., Jordan, Z., & McArthur, A. (2014). Developing the review question and inclusion criteria. *The American Journal of Nursing*, 114(4), 53-56.
<https://doi.org/10.1097/01.NAJ.0000445689.67800.86>
- Taherdoost, H. (2016). Validity and reliability of the research instrument; How to test the validation of a questionnaire/survey in a research. *International Journal of Academic Research in Management*, 5(3), 28-36. <https://doi.org/10.2139/ssrn.3205040>
- Tinsley, H. E., & Tinsley, D. J. (1987). Uses of factor analysis in counseling psychology research. *Journal of Counseling Psychology*, 34(4), 414. <https://doi.org/10.1037/0022-0167.34.4.414>
- Tomás, G. (2020). *Educação inclusiva: Um olhar quantitativo sobre as atitudes de professores das Províncias da Huíla e Lunda-Norte*, Angola. [Doctoral dissertation, Universidade do Minho].

- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Leva, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garritty, C., . . . & Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine*, 169(7), 467-473.
<https://doi.org/10.7326/M18-0850>
- Trigueros, R., Cangas, A. J., Aguilar-Parra, J. M., Álvarez, J. F., & García-Más, A. (2019). No more bricks in the wall: Adopting healthy lifestyles through physical education classes. *International Journal of Environmental Research and Public Health*, 16(23), 4860.
- Tsang, S., Royse, C. F., & Terkawi, A. S. (2017). Guidelines for developing, translating, and validating a questionnaire in perioperative and pain medicine. *Saudi Journal of Anaesthesia*, 11(1), S80. https://doi.org/10.4103/sja.SJA_203_17
- United Nations. (2006). *Convention on the rights of persons with disabilities and optional protocol*. <https://www.un.org/disabilities/documents/convention/convoptprot-e.pdf>
- United Nations Educational, Scientific and Cultural Organization and Ministry of Education and Science of Spain. (1994). *The Salamanca statement and framework for actions on special needs education*. <https://www.european-agency.org/sites/default/files/>
- United Nations Educational, Scientific and Cultural Organization. (1990, April 22). *World declaration on education for all and framework for action to meet basic learning needs*. https://www.right-to-education.org/sites/right-to-education.org/files/resource-attachments/UNESCO_World_Declaration_For_All_1990_En.pdf

- Vaillo, R. R., Hutzler, Y., Santiago, M. C. I., & Murcia, J. A. M. (2016). Attitudes towards inclusion of students with disabilities in physical education questionnaire (AISDPE): A two-component scale in Spanish. *European Journal of Human Movement*, 36, 75-87.
- Van den Broeck, J., Argeseanu Cunningham, S., Eeckels, R., & Herbst, K. (2005). Data cleaning: Detecting, diagnosing, and editing data abnormalities. *PLoS Medicine*, 2(10), e267. <https://doi.org/10.1371/journal.pmed.0020267>
- Watson, J. C. (2017). Establishing evidence for internal structure using exploratory factor analysis. *Measurement and Evaluation in Counseling and Development*, 50(4), 232-238. <https://doi.org/10.1080/07481756.2017.1336931>
- Westen, D., & Rosenthal, R. (2003). Quantifying construct validity: Two simple measures. *Journal of Personality and Social Psychology*, 84(3), 608–618. <https://doi.org/10.1037/0022-3514.84.3.608>
- World Health Organization. (2020, April 23). *Physical activity*. <https://www.who.int/news-room/fact-sheets/detail/physical-activity>
- Xie, Y. D., Li, X. Y., Liu, Q., Huang, R., Li, T., Fang, Y. X., Luo, D., Wan, Y., Yang, B. X., & Reed, S. J. (2022). Cross-cultural validation and psychometric testing of the Debriefing Experience Scale (DES): A cross-sectional study. *BMC Medical Education*, 22(1), 1-9. <https://doi.org/10.1186/s12909-022-03332-8>

Yarimkaya, E., & Rizzo, T. L. (2020). Beliefs and attitudes of Turkish physical educators toward teaching students with disabilities in inclusive physical education classes. *Palaestra*, 34(4).

https://www.researchgate.net/publication/346427621_Beliefs_and_Attitudes_of_Turkish_Physical_Educators_Toward_Teaching_Students_with_Disabilities_in_Inclusive_Physical_Education_Classes-PALAESTR

Yong, A. G., & Pearce, S. (2013). A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in Quantitative Methods for Psychology*, 9(2), 79-94.

<https://doi.org/10.20982/tqmp.09.2.p079>

APPENDIX A

DEMOGRAPHIC QUESTIONNAIRE IN ENGLISH AND PORTUGUESE

Demographic Questionnaire

The following demographic questions relate to your: (a) personal attributes, (b) teaching experiences, and (c) academic experiences. Please write in the requested information in the space provided or mark an X to indicate your response adjacent to the appropriate response option. You may skip any question you are not comfortable answering.

1. Are you an Angolan citizen? Yes____ No____
2. Do you currently live in Angola? Yes____ No____
 a. If yes, in what city and province do you currently live? _____
3. What is your sex? Male _____ Female _____
4. In what year were you born? _____
5. Which academic degree(s) do you hold?

Academic Level	Year Completed	Date Completed or Expected Date of Completion	Bachelor's Degree (e.g., physical education, pedagogy)
High school diploma			
Bachelor's degree			
Graduate degree			

6. Are you currently employed as a teacher? Yes____ No____
 If yes, please indicate where you teach. Mark all that apply.
 Private school(s) _____ Public school(s) _____
 Elementary school(s) _____ Secondary school(s) _____
7. Are you responsible for teaching physical education classes in those schools? Yes____ No _____
8. How many years have you taught physical education at an elementary and/or secondary school?
 Years taught in elementary school _____
 Years taught in secondary school _____

9. Do you have experience teaching students with disabilities in your physical education classes?
Yes_____ No
If yes, how many years have you taught students with disabilities in physical education?_____
10. When teaching physical education classes, what was your average class size?
Elementary class size?_____ Secondary class size? _____
11. Approximately how many students were you responsible for teaching in physical education classes per day?
12. How many hours of physical education do students have per week?
Approximately how many students with disabilities were you responsible for teaching in physical education classes (number of students with disabilities per class)?
13. In the box below indicate how much professional training you have had specific to teaching students with disabilities in physical education?

Type	For each type, please indicate if you have completed training on teaching students with disabilities in physical education.	For all types where you marked yes, please indicate how many courses, workshops, seminars, or conferences included training on teaching students with disabilities?	When were these trainings completed? Please provide year or year range.	In what city or province were these trainings completed?
High school diploma	Yes_____ No_____			
Undergraduate University degree	Yes_____ No_____			
Graduate degree	Yes_____ No_____			
Professional Workshops	Yes_____ No_____			
Professional Seminars	Yes_____ No_____			
In-service seminars in schools	Yes_____ No_____			
Professional Conferences	Yes_____ No_____			

Questionário Demográfico

Por favor, forneça as seguintes informações demográficas relacionadas com os seus: (a) atributos pessoais, (b) experiências de ensino e (c) experiências académicas. Por favor, escreva nas informações solicitadas no espaço fornecido ou marque um X para indicar a sua resposta adjacente à opção de resposta apropriada. Você pode pular qualquer pergunta que não se sinta confortável em responder.

1. E natural de Angola? Sim _____ Não _____
2. Actualmente vive em Angola? Sim _____ Não _____
Se sim, em que cidade e província vive actualmente? _____
3. Qual é o seu sexo? Feminino _____ Masculino _____
4. Em que ano nasceu? _____
5. Qual é o grau académico que tem?

Nível Académico	Ano em que Concluído	Se está cursando, em que ano prevê concluir	Título de Licenciatura (por exemplo, educação física, pedagogia ou outro)
Diploma do Ensino Médio			
Licenciatura			
Pós-graduação			

6. Você está empregado atualmente como professor
Em qual(is) escola(s) você leciona atualmente? Escola(s) privada _____ Escola(s) pública _____
Escola primária _____ Escola(s) secundária _____
7. Você é responsável por ministrar aulas de educação física nessas escolas? Sim _____ Não _____
8. Quantos anos ensinou educação física/ expressão motora numa escola primária e/ou secundária?
Anos leccionados na escola primária _____
Anos leccionados no ensino secundário (Iº Ciclo) _____ (IIº Ciclo) _____
9. Tem experiência em ensinar alunos com deficiência nas suas aulas de educação física/ expressão motora?
Sim _____ Não _____
Se sim, quantos anos você ensina alunos com deficiência na disciplina de educação física/ expressão motora? _____
10. Quando dava aulas de educação física/ expressão motora, qual era o número de alunos por turma?
Escola primária? _____ Escola secundária (Iº Ciclo)? _____ Escola secundária (IIº Ciclo)? _____
11. Aproximadamente quantos students você tinha em educação física por dia? _____

12. Quantas horas de educação física/ expressão motora os alunos têm por semana? _____
13. Aproximadamente quantos alunos com deficiência você tem nas aulas de educação física/ expressão motora por turma? _____
14. **No quadro abaixo**, indique qual a formação profissional que teve específica para ensinar alunos com deficiência em educação física/ expressão motora?

Tipo	Para cada tipo, indique se completou alguma formação sobre o ensino de alunos com deficiência em educação física.	Se sim, quantos cursos, workshops, seminários ou conferências incluíram formação sobre ensino de alunos com deficiência?	Quando é que estas formações foram concluídos? Por favor, forneça o intervalo de ano (ex.: 2001 – 2002) ou ano.	Em que cidade ou província foram concluídas estas formações?
Diploma do Ensino Médio	Sim ____ Não ____			
Licenciatura	Sim ____ Não ____			
Pós-graduação	Sim ____ Não ____			
Workshops Profissionais	Sim ____ Não ____			
Seminários Profissionais	Sim ____ Não ____			
Seminários em serviço na escola	Sim ____ Não ____			
Conferências Profissionais	Sim ____ Não ____			

APPENDIX B

PEJI-A IN PORTUGUESE

Instrumento de Pesquisa

Opinião dos Professores de Educação Física sobre Instrumento de Inclusão

(Originalmente desenvolvido por Hodge, Murata, & Kozub, 2002)

Estamos a realizar um estudo com vista a conhecer a opinião dos professores de educação física sobre a inclusão de alunos com deficiência nas aulas de educação física normais. Assim sendo, ficar-lhe-íamos muito gratos se partilhasse connosco a sua contribuição. Apresentamos a seguir um conjunto de afirmações e perguntas que visam obter a sua opinião sobre a inserção de alunos com deficiência (categoria leve a grave) nas aulas de educação física inclusivas.

Para os fins deste estudo, inclusão significa uma abordagem a favor da colocação de todos os alunos com diferentes habilidades e deficiências (leve a grave) em aulas normais de educação física com colegas com desenvolvimento normal (ou seja, alunos sem deficiência) em escolas nas suas áreas de residência.

1. É voluntária a sua participação no preenchimento desta ficha de pesquisa.
2. Marque com um círculo a resposta que melhor descreve sua opinião
3. Não existe resposta certa ou errada para qualquer afirmação feita nesta pesquisa, e o participante pode decidir responder apenas às perguntas que deseja
Para referência, pode consultar "Definição de Termos" na página seguinte
4. Neste inquérito todas as respostas são mantidas em segredo e usadas apenas para o fim a que se destinam

Definições dos Termos

Distúrbio do Comportamento. Os comportamentos deste jovem são variados e severos. Os comportamentos típicos incluem delinquência, hiperactividade, hipoactividade, transtorno de ansiedade generalizada, desajustamento social, retraimento, agressão, birras, evasão escolar, fuga, hipersensibilidade e alterações de humor. A gestão do comportamento é fundamental para a participação nas aulas de educação física (Rizzo & Kirkendall, 1995).

Surdez e Cegueira. Este jovem tem uma combinação de deficiência auditiva (audição) e visual que limita gravemente a sua capacidade de comunicação. O desenvolvimento motor desta criança pode estar atrasado; ela / ele pode apresentar comportamentos estereotipados, como balançar, colocar o punho ou os dedos nos olhos, agitar os dedos na frente do rosto, rodopiar ou inclinar a cabeça para a frente (Sherrill, 1998).

Dificuldade Auditiva. Diz-se que esse jovem tem uma condição que dificulta a audição, mas não impede a compreensão da fala apenas com o uso do ouvido, com ou sem aparelho auditivo. Na educação física, esse jovem pode precisar de ajuda de um intérprete e/ ou colega para se comunicar com os outros, principalmente em situações de grupo (Sherrill, 1998).

Dificuldade de Aprendizagem. Este jovem tem inteligência normal ou superior. Ele/ ela padece de um distúrbio em um ou mais processos psicológicos básicos envolvidos na compreensão ou no uso da linguagem, falada ou escrita; pode ser hiperactivo, apresentar problemas perceptivo-motores, emocionalmente imaturo, padecer de déficit de atenção; e precisa de ajuda para desenvolver comportamentos de jogo apropriados (Sherrill, 1998).

Deficiências Leves. Este jovem está consistentemente abaixo do normal no desempenho educacional. Nas aulas de educação física, o desempenho motor desse jovem é muitas vezes atrasado, desastrado ou desajeitado e, como resultado, pode apresentar baixa auto-estima em relação ao seu corpo e capacidade de movimento (Sherrill, 1998).

Deficiência Intelectual Leve. Este jovem tem uma pontuação de QI que se encaixa no intervalo de 50-80 em testes padronizados. Ele/ela desenvolverá habilidades sociais e de comunicação básicas; e de um modo geral pode alcançar as habilidades sociais e vocacionais necessárias para o auto-apoio, mas pode precisar de orientação. Ele/ela pode ficar 2-4 anos atrasados quando comparado/a aos seus colegas sem deficiência na maioria dos desempenhos motores; e pode ter dificuldade em aprender habilidades motoras devido a um déficit de atenção e baixa capacidade de compreensão (Rizzo, Bishop, & Tobar, 1997).

Deficiência Física. Neste estudo, o/a jovem apresenta paralisia que envolve tanto o sistema nervoso central como o autónomo; afecta negativamente os movimentos do corpo, as sensações (por exemplo, sentir, tocar) e/ou funções vitais do corpo. Ele / Ela pode ser paraplégico (paralisia de ambas as pernas) ou tetraplégico (paralisia de braços, pernas e tronco) causado por paralisia cerebral grave, lesões na medula espinhal, espinha bífida ou outros defeitos ortopédicos. Ele/ela usa cadeira de rodas (Sherrill, 1998).

Deficiências Graves. O/A jovem padece de uma deficiência crónica, que decorre de uma deficiência mental ou física ou uma combinação de ambos. Isso provoca limites funcionais substanciais no autocuidado, aprendizagem, mobilidade, linguagem receptiva/ expressiva e capacidade para comportamentos auto dirigidos independentes. Nas aulas de educação física, o nível de espontaneidade desse indivíduo é muitas vezes diminuído ou inexistente. Ele ou ela se envolve em poucas actividades e passa muito tempo sentado ou deitado (Jansma, 1993; Sherrill, 1998).

Deficiência Intelectual Grave. O/A jovem está significativamente abaixo da média no funcionamento cognitivo; tem uma pontuação de QI abaixo de 50 em testes padronizados; pode ou não ser capaz de se comunicar verbalmente; e tem pouca socialização ou habilidades de interacção. O jovem é totalmente dependente dos outros para o autocuidado (Rizzo, 1993).

Deficiência Visual. O/A jovem tem visão limitada em um ou ambos os olhos e pode usar lentes correctivas. Isso varia de cegueira parcial (ou seja, capacidade de ver a 20 pés (6 metros) o que o olho normal vê a 200 pés (60 metros) à cegueira total (ou seja, incapacidade de reconhecer qualquer percepção de luz) (Sherrill, 1998).

CHAVE

Discordo Fortemente = **DF**; Discordo = **D**; Indeciso = **I**; Concordo = **C**; Concordo fortemente = **CF**

1. Todos os alunos com deficiência devem ser incluídos na aula de educação física normal.

DF D I C CF

2. A inclusão é uma filosofia idealista que não funciona nas aulas de educação física normal.

DF D I C CF

3. Os alunos com deficiência graves devem frequentar separadamente apenas em aulas de educação física adaptada.

DF D I C CF

4. Os alunos com deficiência graves precisam sempre de uma proporção de um para um com vista a participar com sucesso em actividades de educação física inclusiva.

DF D I C CF

5. Tendo em conta a variedade de deficiências que podem existir, não é realista pretender que um professor de educação física normal ensine todos os alunos com deficiência em suas aulas.

DF D I C CF

6. Eu aceitaria imediatamente ensinar um aluno com deficiência auditiva nas minhas aulas de educação física.

DF D I C CF

7. Eu aceitaria imediatamente ensinar um aluno com deficiência visual nas minhas aulas de educação física.

DF D I C CF

8. Eu aceitaria imediatamente ensinar um aluno com deficiência de aprendizagem nas minhas aulas de educação física.

DF D I C CF

9. Eu aceitaria imediatamente ensinar um aluno com deficiência física (por exemplo, um aluno que usa cadeira de rodas ou muletas) nas minhas aulas de educação física.

DF D I C CF

CHAVE

Discordo Fortemente = **DF**; Discordo = **D**; Indeciso = **I**; Concordo = **C**; Concordo fortemente = **CF**

10. Eu aceitaria imediatamente ensinar um aluno com deficiência cognitiva nas minhas aulas de educação física.
- DF D I C CF**
11. Para ser mais eficaz no ensino de alunos com deficiência, devo frequentar e concluir um curso/ formação que me forneça conhecimento sobre uma variedade de deficiências, de leves a graves.
- DF D I C CF**
12. Para ser mais eficaz no ensino de alunos com deficiências leves, preciso de exposição (por exemplo, experiências de contacto directo) a alunos com deficiências leves durante o meu desenvolvimento profissional.
- DF D I C CF**
13. Para ser mais eficaz no ensino de alunos com deficiências graves, preciso de exposição (por exemplo, experiências de contacto directo) a alunos com deficiências graves durante o meu desenvolvimento profissional
- DF D I C CF**
14. Para ser mais eficaz no ensino de alunos com deficiências leves a graves, devo frequentar e concluir treinamento em actividades que incluam ideias sobre planeamento de aulas para vários níveis de habilidade.
- DF D I C CF**
15. Para ser mais eficaz no ensino de alunos com deficiências leves a graves, devo frequentar e concluir treinamento em estratégias de gestão comportamental e resolução de conflitos, além do que é necessário para ensinar alunos sem deficiência.
- DF D I C CF**
16. Para ser mais eficaz no ensino de alunos com deficiências leves a graves, preciso da ajuda de outras pessoas (por exemplo, professor de educação física adaptada, professor de educação especial, tutores de pares).
- DF D I C CF**

É tudo. Agradecemos muito sua ajuda!

APPENDIX C

LETTERS OF SUPPORT FROM MINISTRY OF EDUCATION OF ANGOLA



- AO
- GABINETE PROVINCIAL DA EDUCAÇÃO DE LUANDA
 - GABINETE PROVINCIAL DA EDUCAÇÃO DE BENGUELA
 - GABINETE PROVINCIAL DA EDUCAÇÃO DA HUÍLA
 - GABINETE PROVINCIAL DA EDUCAÇÃO DO NAMÍBE

LUANDA

27/06/2022 /2º/2. 2/RE/2022

Assunto: Solicitação de Colecta de Dados para dissertação de Doutoramento.
Melhores cumprimentos.

Para os devidos efeitos, incumbe-me Sua Excelência Ministra da Educação, **Luísa Maria Alves Grilo**, de remeter a carta subscrita pela senhora, **Águeda Maria Flores Gomes**.

Atenciosamente,

GABINETE DA MINISTRA DA EDUCAÇÃO, EM LUANDA, AOS 24 DE JUNHO DE 2022.

O DIRECTOR DO GABINETE

LOURENÇO NETO

L.P.

A
SUA EXCELÊNCIA
SENHORA MINISTRA DA EDUCAÇÃO
DRA LÚISA GRILO

LUANDA

ASSUNTO: *Solicitação de Colecta de Dados para Dissertação de Doutoramento.*

Excelência,

Os meus respeitosos cumprimentos.

Águeda Maria Flores Gomes, Portadora do BI N° 000065150MO013, funcionária do Ministério da Educação e estudante bolsceira de Angola nos Estados Unidos de América, candidata ao grau de Doutor pela a universidade "Texas Woman's University" (TWU) em Cinesilogia¹, na especialidade de Educação Física Adaptada², no Estado do Texas, no Condado de Denton, venho por este meio informar e solicitar o seguinte:

Propósito

- Nesta dissertação de doutoramento ir-se-á validar um instrumento sobre a inclusão dos alunos com deficiência nas aulas de educação física no ensino geral. A proposta irá envolver professores que leccionam a disciplina de educação física no ensino primário e secundário, mais precisamente professores do ensino primário (monodocentes) e professores de educação física do ensino secundário (1º e 2º Ciclos).

Objectivo

- A validação desse instrumento irá servir como uma futura ferramenta de pesquisa para as instituições de ensino, tal como o Ministério da Educação e o Ministério do Ensino Superior para o desenvolvimento de novas políticas sobre abordagens e estratégias de ensino para a melhoria dos currículos de ensino no que diz respeito a inclusão dos alunos com deficiência.

Colecta de Dados

- De acordo com as normas científicas para a validação de instrumentos, o Centro de Design e Análise de Pesquisa³ da Universidade "TWU" recomendou uma amostra de duzentos

¹ <https://twu.edu/kinesiology/>

² Educação física para pessoas com deficiência.

³ <https://twu.edu/center-for-research-design-and-analysis-crda/>

Ministério da Educação



(200) participantes divididos em dois grupos: 100 professores do ensino primário e 100 professores de educação física do ensino secundário do 1º e 2º Ciclos.

- A previsão para realizar a colecta de dados é para princípio do mês de Novembro de 2022 e envolverá três províncias do país, nomeadamente: Luanda, Benguela e Huila. Contudo, caso as três províncias preestabelecidas não cubram o número necessário de professores de educação física do ensino secundário, poderá ser incluída a província do Namibe. Por experiência, em termos percentuais existem mais professores do ensino primário do que professores de educação física do ensino secundário.

De referir que a sua deslocação às províncias seleccionadas para a colecta de dados em princípio não possui suporte financeiro institucional, por este facto, foram seleccionadas províncias onde a candidata conta com o apoio familiar para alojamento e alimentação.

Face ao exposto, vem mui respeitosamente solicitar a Sua Excelência a sua autorização para a colecta de dados nas províncias supracitadas e o acesso aos dados estatísticos do universo de professores de educação física em geral e por províncias seleccionadas, assim como outros dados expressos no quadro em anexo a este documento junto ao Gabinete de Estudos, Planeamento e Estatística (GEPE) importantes para a contextualização deste estudo.

Ciente que esta merecerá a sua melhor atenção, a signatária agradece antecipadamente e subcreve-se com a mais elevada consideração.

Denton, 21 de Junho de 2022.

Atenciosamente,



MS. Agueda Maria Flores Gomes
aguedalobito@yahoo.com



REPÚBLICA DE ANGOLA
MINISTÉRIO DA EDUCAÇÃO
INSTITUTO NACIONAL DE AVALIAÇÃO E DE DESENVOLVIMENTO DA EDUCAÇÃO

CREDENCIAL

Para os devidos efeitos faz-se saber às autoridades competentes que a portadora deste credencial que a Senhora **Águeda Maria Flores Gomes**, funcionária deste Instituto, exercendo as funções de Professora do Ensino Primário e Secundário de 3.º Grau.

E está credenciado para colecta de dados nas Províncias de Luanda, Benguela e Huíla, nas instituições de ensino em funcionamento no território nacional.

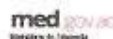
Por ser verdade, ao abrigo do disposto na alínea d) do n.º 2 do artigo 9.º do Decreto Presidencial n.º 91/21, de 16 de Abril, que aprova o Estatuto Orgânico do Instituto Nacional de Avaliação e de Desenvolvimento da Educação, passei a presente credencial autenticada com carimbo a óleo em uso neste Instituto.

Atenciosamente

Luanda, 21 de Dezembro de 2022



Rua Cdt. Gika: Edifício do MJD n.º
Telefone nº 994 724 277/ 935 330 418
E-mail: directorgeral@inade.gov.ao
Caixa Postal: IV nº 18611 Luanda - Angola



APPENDIX D

INSTITUTIONAL REVIEW BOARD APPROVAL



Suzanna Dillon <sdillon@twu.edu>

IRB-FY2023-117 - Initial: Exempt Letter

1 message

do-not-reply@cayuse.com <do-not-reply@cayuse.com>
To: aguedagomes@twu.edu, sdillon@twu.edu
Cc: irb@twu.edu

Wed, Jan 25, 2023 at 8:32 AM



Texas Woman's University
Institutional Review Board (IRB)

irb@twu.edu

<https://www.twu.edu/institutional-review-board-irb/>

January 25, 2023

Agueda Gomes
Health Promotion & Kinesiology

Re: Exempt - IRB-FY2023-117 Psychometric Validation of the Physical Educators' Judgments about Inclusion in Angola

Dear Agueda Gomes,

The above referenced study has been reviewed by the TWU IRB - Denton operating under FWA00000178 and was determined to be exempt on January 24, 2023. If you are using a signed informed consent form, the approved form has been stamped by the IRB and uploaded to the Attachments tab under the Study Details section. This stamped version of the consent must be used when enrolling subjects in your study.

Note that any modifications to this study must be submitted for IRB review prior to their implementation, including the submission of any agency approval letters, changes in research personnel, and any changes in study procedures or instruments. Additionally, the IRB must be notified immediately of any adverse events or unanticipated problems. All modification requests, incident reports, and requests to close the file must be submitted through Cayuse.

On January 23, 2024, this approval will expire and the study must be renewed or closed. A reminder will be sent 45 days prior to this date.

If you have any questions or need additional information, please email your IRB analyst at irb@twu.edu or refer to the [IRB website](#).

Sincerely,

TWU IRB - Denton

APPENDIX E

CONSENT FORM APPROVED BY TWU IRB

TEXAS WOMAN'S UNIVERSITY

Escola de Promoção da Saúde e Cinesilogia Consentimento
para Participar em Investigação

Título: Validação dos Acórdãos dos Educadores Físicos do Instrumento de Inclusão em Angola: Um estudo-piloto

Principal Investigator: Agueda Gomes, MS. aguedagomes@twu.edu 00-1-940-377-9202
Faculty Advisor: Suzanna Dillon, Ph.D. sdillon@twu.edu 00-1-940-898-2582

Explicação e Finalidade da Investigação:

A tradução e o estabelecimento dos Julgamento/Opinião dos Educadores Físicos sobre a Inclusão em Angola (PEJI-A) como um instrumento válido é fundamental para investigações subsequentes dos julgamentos de professores de educação física em serviço e de candidatos a professores de educação física específicos para a inclusão de alunos com deficiência na educação física no sistema de educação geral de Angola. Portanto, o objectivo desta investigação é examinar as propriedades psicométricas dos Juízos dos Educadores Físicos sobre a Inclusão em Angola (PEJI-A).

Por favor, seja avisado sobre o seguinte relacionado com a participação neste estudo:

- Tempo total de compromisso para este estudo será de cerca de 40 minutos.
- Maior risco deste estudo é a potencial perda de confidencialidade.
- Os indivíduos com pelo menos 18 anos de idade, possuem um diploma de ensino secundário em educação física ou pedagogia, e que sejam cidadãos angolanos que residam em Angola são elegíveis para participar no estudo.
- Embora não existam benefícios directos para si enquanto participante, a sua participação neste estudo contribuirá para o desenvolvimento de um instrumento que possa ser utilizado para melhorar a programação de educação física para estudantes com deficiência.
- A sua participação neste estudo é completamente voluntária.

Por favor, reveja cuidadosamente este formulário de consentimento e tire do seu tempo para decidir se quer ou não participar. Além disso, sinta-se livre para enviar um e-mail à Investigadora Principal, Sra. Gomes, com quaisquer perguntas que tenha sobre o estudo a qualquer momento.

Procedimentos de investigação:

Para investigar, a colecta de dados será realizada com professores do ensino fundamental e médio da rede de ensino de Angola. O PI administrará o formulário de consentimento informado, o questionário demográfico e a pesquisa PEJI-A, que serão todos administrados em sala de aula com os participantes sentados a pelo menos um metro de distância um do outro. Os participantes receberão um lápis para preencher os documentos em formato de papel.

Compromisso de Tempo:

Estima-se que o tempo total para esta investigação seja de aproximadamente 40 min. Mais especificamente, como participante, será solicitado que preencha um formulário de consentimento informado (tempo de conclusão previsto de 10 min), um questionário demográfico (tempo de conclusão previsto de 10 min) e o inquérito ao instrumento PEJI-A (tempo de conclusão previsto de 20 min). Sua



Initials _____
Pag. 1 - 2

participação nesta investigação é completamente voluntária, e você pode retirar-se da investigação a qualquer momento sem penalidade.

Riscos potenciais:

Um risco potencial relacionado com a sua participação é a perda de confidencialidade, embora a confidencialidade seja protegida na medida em que a lei o permita. Para proteger os participantes, os inquéritos e os questionários serão realizados de forma anónima com os participantes sentados a pelo menos um metro de distância dos outros participantes. Além disso, os formulários de consentimento informados e todos os documentos de recolha de dados serão armazenados durante cinco anos numa gaveta segura no gabinete do professor TWU (conselheiro da PI), após o qual os formulários de consentimento informados serão destruídos usando um triturador de corte cruzado.

Declaração de isenção de responsabilidade da TWU:

Os investigadores tentarão prevenir qualquer problema que possa acontecer por causa desta investigação. Deve informar os investigadores imediatamente se há algum problema e eles vão ajudá-lo. No entanto, a TWU não presta serviços médicos ou assistência financeira para lesões que possam ocorrer porque está a participar nesta investigação.

Benefícios da Participação:

Embora não existam benefícios directos para si enquanto participante, estes resultados desta investigação piloto ajudarão na validação do PEJI-A, que pode ser usado para melhorar a qualidade da educação para estudantes com deficiência, especificamente em contextos de educação física.

Perguntas sobre o estudo:

Será-lhe fornecida uma cópia desta página de consentimento para guardar. Se tiver alguma dúvida sobre o estudo de investigação, deve fazer perguntas ao investigador; as suas informações de contacto estão no topo deste formulário. Se tiver dúvidas sobre os seus direitos enquanto participante nesta pesquisa ou sobre a forma como este estudo foi realizado, pode contactar o Gabinete de Investigação e Programas Patrocinados da TWU através do número 00-1-940-898-3378 ou via e-mail no IRB@twu.edu.

Assinatura do Participante

Data



TEXAS WOMAN'S UNIVERSITY
School of Health Promotion and Kinesiology
Consent to Participate in Research

Title: Psychometric Validation of the Physical Educators' Judgments About Inclusion in Angola

Principal Investigator:	Agueda Gomes, MS	aguedagomes@twu.edu	00-1-940-377-9202
Faculty Advisor:	Suzanna Dillon, PhD	sdillon@twu.edu	00-1-940-898-2582

Explanation and Purpose of the Research:

The translation and establishment of the *Physical Educators' Judgments About Inclusion in Angola (PEJI-A)* as a valid instrument is critical to subsequent investigations of the judgments of in-service physical education teachers and physical education teacher candidates specific to the inclusion of students with disabilities in physical education within the general education system of Angola. Therefore, the purpose of this investigation is to examine the psychometric properties of the *Physical Educators' Judgments About Inclusion in Angola (PEJI-A)*.

Participation in this study:

- The total time commitment for this study will be approximately 40 minutes.
- The greatest risk of this study is the potential loss of confidentiality.
- Individuals who are at least 18 years of age, hold a high school diploma in physical education or pedagogy, and who are Angolan citizens who reside in Angola are eligible to participate in the study.
- While there are no direct benefits to you as a participant, your participation in this study will contribute to the development of an instrument that can be used to improve physical education programming for students with disabilities.
- Your participation in this study is completely voluntary.

Please review this consent form carefully and take your time deciding whether or not you want to participate. Also, please feel free to email the Principal Investigator, Mrs. Agueda Gomes, with any questions you have about the study at any time.

Research Procedures:

For this study, the PEJI-A survey will be used to examine the judgements of elementary and secondary physical education teachers regarding inclusion in Angola. The PI will administer the informed consent form, demographic questionnaire, and the PEJI-A survey in a classroom setting where you will be seated at least three feet apart from other participants. You will be provided with a pencil to complete the paper formatted documents.

Time Commitment:

The total time commitment for this investigation is estimated to be approximately 40 min. More specifically, as a participant, you will be asked to complete an informed consent form (anticipated completion time of 10 min), a demographic questionnaire (anticipated completion time of 10 min), and the PEJI-A instrument survey (anticipated completion time of 20 min). Your participation in this investigation is completely voluntary, and you may withdraw from the investigation at any time without penalty.



Initials
Page 1 of 2

Potential Risks:

A potential risk related to your participation is loss of confidentiality, though confidentiality will be protected to the extent that is allowed by law. There is a potential risk of loss of confidentiality in all email, downloading, electronic meetings, and internet transactions. To protect participants, surveys and questionnaires will be completed anonymously in written format with participants seated at least three feet apart from other participants. Additionally, informed consent forms and all data collection documents will be stored for five years in a secured drawer in the PI advisor's locked TWU faculty office, after which the informed consent forms will be destroyed using a cross-cut shredder.

TWU Disclaimer Statement:

The researchers will try to prevent any problem that could happen because of this research. You should let the researchers know at once if there is a problem and they will help you. However, TWU does not provide medical services or financial assistance for injuries that might happen because you are taking part in this research.

Benefits of Participation:

While there are no direct benefits to you as a participant, these results from this pilot investigation will assist with the validation of the PEJI-A, which can be used to improve the quality of education for students with disabilities, specifically in the physical education settings.

Questions Regarding Study:

You will be provided a copy of this consent page to keep. If you have any questions about the research study you should ask the researcher; their contact information is at the top of this form. If you have questions about your rights as a participant in this research or the way this study has been conducted, you may contact the TWU Office of Research and Sponsored Programs at 00-1-940-898-3378 or via e-mail at IRB@twu.edu.

Signature of Participant

Date

