UNIVERSITY OF CALIFORNIA

Santa Barbara

School Psychology Around the Globe: Examining Relationships with Economical, Cultural, Educational, and Professional Variables

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Counseling, Clinical, and School Psychology

by

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Committee in charge:

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September 2014

The dissertation of Jacqueline A. Brown is approved.

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June 2013

School Psychology Around the Globe: Examining Relationships with Economical, Cultural, Educational, and Professional Variables

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love constantly reminds me of what is truly important in this world. Last but not least, I would like to thank those close to me who have died and are no longer with me in person, but who will always hold a special place in my heart and continue to be my inspiration.

Jacqueline A. Brown

Curriculum Vitae

Education

Ph.D.	University of California, Santa Barbara, California. Counseling, Clinical, and School Psychology (Emphasis in School Psychology) Anticipated Graduation: 2014 Dissertation Title: "*School Psychology around the Globe: Examining Associations with Economical, Cultural, Educational, and Professional Variables"* Supervisor: Dr. Shane R. Jimerson
M.A.	University of British Columbia, Vancouver, British Columbia. School Psychology November 2010 Master's Thesis Title: "*Exploring How Level of Training, Inclusion, and Problem Behavior Affect Student-Teacher Relationships for Students with Autism Spectrum Disorders"* Supervisor: Dr. Kent McIntosh
B.A.	Dalhousie University, Halifax, Nova Scotia. Psychology, First Class Honors (with thesis) May 2007 Honors Thesis Title: "*Effects of Early Intensive Behavioral Intervention on Affect, Engagement, and Disruptive Behavior in Children with Autism Spectrum Disorders"* Supervisor: Dr. Isabel Smith

Awards and Scholarships

SCHOLARSHIPS/FELLOWSHIPS

Name	**Value**	**Year**
Social Sciences and Humanities Research Council Doctoral Fellowship ($20,000 per year) *Federal fellowship from the Canadian Government awarded to the most promising Canadian doctoral student researchers*	$60,000	2011-2013
Block Grant Fellowship (University of California, Santa Barbara) *University support for tuition*	$4,000	2013

Block Grant Fellowship (University of California, Santa Barbara) *University support for tuition*	$15, 000	2011-2012
Block Grant Fellowship (University of California, Santa Barbara) *University support for tuition*	$9, 470	2010-2011
Dean of Education Scholarship (University of British Columbia) *University support for tuition*	$1,000	2009-2010
University of British Columbia Graduate Student Research Grant *Research funding for Master's thesis*	$922	2009-2010
Joseph-Armand Bombardier Canada Graduate Master's Scholarship *Federal scholarship from the Canadian Government awarded to the most promising Canadian Master's student researchers.*	$17, 500	2008-2009
IWK Summer Studentship (IWK Health Centre, Halifax, Nova Scotia) *Research Assistant Scholarship from the IWK Health Centre*	$3, 188	2006

Fieldwork Experience

Year	Location and Description
Doctoral Degree:	
2013-2014 (August-July)	***Pre-doctoral Psychology Intern*** **Boys Town, Nebraska Internship Consortium of Professional Psychology (APA Accredited Internship)** **Omaha, Nebraska** *40 hours per week* *Supervisors:* Dr. Connie Schnoes, PhD. *Responsibilities:* Provide individual, group, and family therapy to children and teens; consult with teachers and other professionals; conduct assessments with children and teens; conduct applied research. Services to be provided to children and teens with a broad range of clinical, social, and emotional difficulties.
2011-2013 (September-June)	***Hospice of Santa Barbara Intern*** **Hospice of Santa Barbara (Non-Profit Organization),** **Santa Barbara, California** *10 hours per week*

Supervisors: Dr. Shane Jimerson, PhD, NCSP, Dr. Erin Dowdy, PhD (UCSB), and Michael Cruse, LCSW (Hospice of Santa Barbara)

Responsibilities: Provided individual and group bereavement psychotherapy to children and teens; developed and implemented treatment plans; wrote case notes; consulted with school counselors, marriage and family therapists, and clinical social workers; supported children and families in bereavement groups; conducted research linking science to practice.

2012 (January-June) ***School Psychology Intern***
Isla Vista Elementary School, Isla Vista, California
2 hours per week

Supervisors: Dr. Shane Jimerson, PhD, NCSP, Dr. Erin Dowdy, PhD (UCSB), and Kellie Butkiewicz, M.A., PPS (Isla Vista Elementary School)

Responsibilities: Conducted comprehensive psychoeducational assessments and consulted with teachers. Services provided to school-aged children diagnosed with Learning Disorders.

2010-2011 (September-June) ***Positive Behavior Support Specialist***
Harding University Partnership School, Santa Barbara, California
15 hours per week

Supervisors: Dr. Shane Jimerson, PhD, NCSP, Dr. Erin Dowdy, PhD (UCSB), and Rory Diaz, M.A., PPS (Harding University Partnership School)

Responsibilities: Provided group and individual psychotherapy to school-age children using evidence-based treatments (e.g., CBT and Solution-Focused Therapy); implemented and evaluated an evidence-based class-wide violence prevention program (*Second Step)*; conducted class-wide and individual behavioral screening/assessment; developed and implemented treatment and behavior plans; wrote case notes; consulted with and provided psychoeducation to teachers and parents. Services provided to general and special education students with behavioral, social, and emotional difficulties.

2011 (January-June)

Student Clinician
Hosford Counseling and Psychological Services Clinic, UCSB, Santa Barbara, California
7 hours per week

Supervisor: Dr. Heidi Zetzer, PhD, Licensed Psychologist.

Responsibilities: Conducted intakes and individual psychotherapy sessions with undergraduate pseudo-clients; developed and implemented treatment plans; wrote case notes; attended monthly clinic meetings. Services provided to undergraduate students experiencing a range of life adjustment difficulties.

Master's Degree:

2009-2010 (September-June)

School Psychology Intern, Master's 1200 hour internship
Delta School District, Delta, British Columbia
-Provincial Outreach Program for Autism and Related Disorders
32 hours per week
-Devon Gardens Elementary School, *8 hours per week*

Supervisor: Dr. Ted Wormeli, EdD, Registered Psychologist, NCSP.

Responsibilities: Conducted comprehensive psychoeducational assessments, including a DSM-IV diagnosis; designed and implemented social-skills interventions; consulted with and provided psychoeducation to teachers, parents, and other school-based staff (e.g., speech-language pathologists & school counselors); assisted in writing Individualized Education Plans (IEPs); attended school-based team meetings. Services provided to school-age children and adolescents diagnosed with Autism Spectrum Disorders and a range of other clinical and learning disorders.

2008-2009 (September-June)

Second Year School Psychology Practicum Student
St. Andrew's Elementary School, Vancouver, BC
Psychoeducational Research and Training Clinic, UBC, Vancouver, British Columbia
16 hours per week

Supervisors: Dr. Kent McIntosh, PhD (September-January),
Dr. Laurie Ford, PhD (January-June)

Responsibilities: Conducted a school-wide reading screening (using DIBELS); provided training to school-staff on data-based decision making; consulted with teachers and parents; conducted individual and class-wide behavior assessments and implemented relevant interventions using Response to Intervention (RTI); conducted comprehensive psychoeducational assessments. Services provided to school-age and adolescents diagnosed with Learning Disorders and Down Syndrome.

2008 (May-July)

First Year School Psychology Practicum Student
Psychoeducational Research and Training Clinic, UBC, Vancouver, British Columbia
5 hours per week

Supervisor: Dr. Laurie Ford, PhD.

Responsibilities: Conducted a comprehensive psychoeducational assessment with an eight-year-old boy diagnosed with a Learning Disorder and behavioral difficulties; conducted observations; consulted with parents and teachers.

2007-2008 (September-April)

First Year School Psychology Practicum Student
Captain James Cook Elementary School, Vancouver,
British Columbia
3 hours per week

Supervisors: Dr. William McKee, PhD (September-December), Dr. Kent McIntosh, PhD (January-April)

Responsibilities: Assisted school-age children for whom English was a Second Language; attended school-based team meetings; conducted observations; consulted with teachers; conducted individual and class-wide curriculum-based assessments; designed and implemented curriculum-based interventions. Services provided to sixth-grade, third-grade, and kindergarten students in general education classrooms.

Research Experience

Year	Location and Description
2012-2013 (March-June)	***Doctoral Dissertation*** **University of California, Santa Barbara,** **Santa Barbara, California** *5 hours per week* *Dissertation Chair:* Dr. Shane Jimerson, PhD, NCSP. *Dissertation Title:* Presence, Preparation, and Practice of School Psychology around the Globe: Examining Associations with Economical, Cultural, Educational, and Professional Variables *Responsibilities:* Involved in project design; determined key variables; collected data from relevant sources; inputted and analyzed data.
2010-2013 (September-June)	***Graduate Student Researcher*** **University of California at Santa Barbara,** **Santa Barbara, California** *2 hours per week* *Supervisors:* Dr. Shane Jimerson, PhD, NCSP, and Dr. Erin Dowdy, PhD. *Responsibilities:* Assisting in the ongoing development and evaluation of the International PREPaRE school crisis prevention and intervention curriculum; assisting in conducting a meta-analyses of grade retention studies in the United States; conducted school-based behavioral screening using the Behavioral and Emotional Screening System at two high schools in the Los Angeles Unified School District; implemented a violence prevention program (*Second Step)* in an elementary school and then collected and analyzed pre- and post-intervention data.
2009-2010 (January-July)	***Master's Thesis*** **University of British Columbia, Vancouver,** **British Columbia** *3-5 hours per week* *Master's Thesis Chair:* Dr. Kent McIntosh, PhD. Master's Thesis Title: Exploring How Level of Training, Inclusion, and Problem Behavior Affect Student-Teacher Relationships for Students with

Autism Spectrum Disorders

Responsibilities: Obtained ethical approval to conduct research from university and school districts; involved in project design; determined key variables; collected, inputted, and analyzed data; collaborated with teachers and paraprofessionals.

2008 to 2009 (September-April)

Graduate Research Assistant
Department of Educational and Counseling Psychology, and Special Education, UBC, Vancouver, British Columbia
3-5 hours per week

Lab: School-University Partnerships to Promote Optimal Research and Teaching lab
Supervisor: Dr. Kent McIntosh, PhD.
Responsibilities: Aided in writing grant proposals; conducted literature searches; wrote sections of manuscripts.

2007 to 2009 (September-July)

Graduate Research Assistant
Department of Educational and Counseling Psychology, and Special Education, UBC, Vancouver, British Columbia
8-10 hours per week

Lab: Autism & Developmental Disabilities Lab
Supervisor: Dr. Pat Mirenda, PhD.
Responsibilities: Coded questionnaires, test protocols, and videos; trained new research assistants.

2007 (May-June)

Research Assistant
Institute of Child Health, University College London, London, UK
25 hours per week

Lab: Behavioral Brain and Sciences Unit (Autism)
Supervisors: Drs. Jessica and Peter Hobson, PhD.
Responsibilities: Engaged in reliability coding; wrote clinical descriptions from videos; observed behavioral interactions of pre-school age children in school and clinical settings.

Teaching Experience

Year	Location and Description
2012 (September-December)	***Teaching Assistant*** **Course: Positive Psychology, Undergraduate Class** **University of Santa Barbara, Santa Barbara, California** *9 hours per week* *Professor:* Dr. Michael Furlong, PhD. *Responsibilities:* Assisted in designing the course syllabus and planning lectures/activities; helped create exams and assignments; graded student assignments; taught portions of the course; answered student questions through office hours and email.
2012 (June-July)	***Teaching Assistant*** **Course: Identity and Pluralism, Undergraduate Class** **University of Santa Barbara, Santa Barbara, California** *12 hours per week* *Professor:* Dr. Melissa Morgan Consoli, PhD. *Responsibilities:* Assisted in planning weekly lectures; graded student assignments; taught one lecture; answered student questions through office hours and email.

Scholarly and Professional Activities

PEER-REVIEWED JOURNAL ARTICLES

Brown, J. A., & McIntosh, K. (2012). Training, inclusion, and behavior: Effect on student-teacher and student-SEA relationships for students with autism spectrum disorders. *Exceptionality Education International, 22,* 77-88. Retrieved from http://ejournals.library.ualberta.ca/index.php/eei

Brown, J. A., Jimerson, S. R., Dowdy, E., Gonzalez, V., & Stewart, K. (2012). Assessing the effects of school-wide Second Step implementation in a predominately English Language Learner, low SES, Latino/a sample. *Psychology in the Schools, 49,* 864-875. doi: 10.1002/pits.21639

Stifel, S. W. F., **Brown, J. A.**, Jimerson, S. R., & Dowdy, E. (2012). Integrating email communication with counseling at school: Ethical and legal considerations for school psychologists. *School Mental Health*, *5,* 110-118. doi: 10.1007/s12310-012-9086-9

McIntosh, K., MacKay, L. D., Andreou, T., **Brown, J. A.**, Mathews, S., Poirier, C., & Bennett, J. (2011). Response to intervention in Canada: Definitions, implications, and future directions. *Canadian Journal of School Psychology, 26,* 18-43. doi: 10.1177/0829573511400857

McIntosh, K., Sadler, C., & **Brown, J. A.** (2011). Kindergarten reading skill level and change as risk factors for chronic problem behavior. *Journal of Positive Behavior Interventions*, *14,* 17-28.
doi: 10.1177/1098300711403153

McIntosh, K., **Brown, J. A.**, Borgmeier, C. J. (2008). Validity of functional behavior assessment within a response to intervention framework: Evidence, recommended practice, and future directions. *Assessment for Effective Intervention, 34,* 6-14. doi:10.1177/1534508408314096

MANUSCRIPTS UNDER REVIEW

Rime, W. J., Jimerson, S. R., Dowdy, E., **Brown, J. A.**, & Chin, J. (under review). Teacher perceptions of the Second Step curriculum: Student understanding and engagement, conceptual importance, and relevance. *The Contemporary School Psychologist.*

BOOK CHAPTERS

Watanabe, Y., & **Brown, J. A.** Preventative education in Canada (2013). In K. Yamazaki, Y. Toda, & Y. Watanabe (Eds.), *School-Based Preventive Education in the World* (pp. 82-89). Japan: Kaneko-Shobo.

Jimerson, S. R., Brock, S. E., & **Brown, J. A.** (2013). Immediate school-based intervention following violent crises. In C. Franklin, Harris, M. B., & P. Allen-Meares (Eds.), *The School Services Sourcebook (2nd ed,* pp. 579-589*.).* New York, NY: Oxford University Press.

Jimerson, S. R., **Brown, J. A.**, Saeki, E., & Watanabe, Y., Kobayashi, T., & Hatzichristou, C. (2012). Natural disasters. In S. E. Brock & S. R. Jimerson (Eds.), *Best Practices in School Crisis Prevention and Intervention (2nd ed.,* pp. 573-595*)*. Bethesda, MD: National Association of School Psychologists.

Jimerson, S. R., **Brown, J. A.**, & Stewart, K. (2012). Sudden and unexpected death. In S. E. Brock & S. R. Jimerson (Eds.), *Best Practices in School Crisis Prevention and Intervention (2nd ed.,* pp. 469-483*).* Bethesda, MD: National Association of School Psychologists.

Jimerson, S. R., & **Brown, J. A.** (2012). Grade Retention: A strategy failing to support student achievement and adjustment. In J. A. C. Hattie & E. M. Anderman (Eds.), *The International Handbook of Student Achievement* (pp. 469-483). New York, NY: Routledge.

Jimerson, S. R., **Brown, J. A.**, Stifel, S. & Ruderman, M. A. (2012). World report on violence and health: International insights. In S. R. Jimerson, A. B. Nickerson, M. J. Mayer, & M. J. Furlong (Eds.), *The Handbook of School Violence and School Safety: International Research and Practice (2nd ed.,* pp. 215-224*).* New York, NY: Routledge.

Jimerson, S. R., Haddock, A., & **Brown, J. A.** (2012). Beyond grade retention and social promotion: Towards supporting students with learning and behavioral disabilities. In B. G., Cook, M. Tankersley, T. J. Landrum, A. C. Hattie, & E. M. Anderman (Eds.), *Advances in Learning and Behavioral Disabilities*, *Volume 25* (pp.167-190). Bingley, UK: Emerald Publishing.

Osher, D., Dwyer, K. P., Jimerson, S. R., & **Brown, J. A.** (2012). Developing safe, supportive, and effective schools: Facilitating student success to reduce school violence. In S. R. Jimerson, A. B. Nickerson, M. J. Mayer, & M. J. Furlong (Eds.), *The Handbook of School Violence and School Safety: International Research and Practice (2nd ed.,* pp. 27-44*). New York, NY: Routledge.*

PEER-REVIEWED CONFERENCE PRESENTATIONS

Brown, J. A., Jimerson, S. R., & Oakland, T. (2013, February). International school psychology: Training and practices around the globe. Poster presented at the 2013 Annual Convention of the National Association of School Psychologists, Seattle, WA.

Brown, J. A., & Jimerson, S. R. (2013, February). Preparing for and responding to sudden and unexpected student death. In V. Comerchero (chair), *Review and discussion of tools to assist grieving students*. Symposium to be conducted at the 2013 Annual Convention of the National Association of School Psychologists, Seattle, WA.

Jimerson, S. R., **Brown, J. A.**, & Shahroozi, S. R. (2012, October). International PREPaRE: School crisis prevention and intervention curriculum: Highlights and updates. Paper presented at the 2012 Annual Convention of the California Association of School Psychologists, Costa Mesa, CA.

Brown, J. A., Jimerson, S. R., Oakland, T. D., & Shahroozi, R. (2012, August). International perspectives: School psychology around the globe. Poster presented at the 2012 Annual Convention of the American Psychological Association, Orlando, FL.

Jimerson, S. R., **Brown, J. A.**, & Shahroozi, S. R. (2012, July). International PREPaRE: A global school crisis prevention and preparedness curriculum. Paper presented at the International School Psychology Association Conference. Montreal, Canada.

Jimerson, S. R., & **Brown, J. A.** (2012, July). Sudden and unexpected death: Preparing for and responding to the unpredictable. In V. Comerchero (chair), *Grief and*

bereavement in educational settings: Intervention strategies for school psychologists. Symposium conducted at the 2012 Annual Convention of the International School Psychology Associatioån. McGill University, Montreal, Canada.

Jimerson, S. R., **Brown, J. A.**, Shahroozi, S. R., & Watanabe, Y. (2012, March). PREPaRE school crisis prevention and intervention curriculum: International perspectives. Paper presented at the 2012 Annual Convention of the California Association of School Psychologists, Costa Mesa, CA.

Brown, J. A., Rime, W. R., Gonzalez, V., Stewart, K., Chin, J., Jimerson, S. R., & Dowdy, E. (2012, February). Effects of Second Step on student behavior and teacher perceptions. Paper presented at the 2012 Annual Convention of the National Association of School Psychologists, Philadelphia, PA.

Jimerson, S. R., **Brown, J. A.**, Saeki, E., & Watanabe, Y. (2012, February). Natural disasters: Preparing for and responding to the unpredictable. Paper presented at the 2012 Annual Convention of the National Association of School Psychologists, Philadelphia, PA.

Brown, J. A., & McIntosh, K. (2011, August). Exploring factors that affect student-teacher and student-paraprofessional relationships for students with autism spectrum disorders. Poster presented at the 2011 Annual Convention of the American Psychological Association, Washington, DC.

Brown, J. A., & McIntosh, K. (2011, February). Factors that affect student-teacher relationships for students with ASD. Poster presented at the 2011 Annual Convention of the National Association of School Psychologists, San Francisco, CA.

Brown, J. A., McIntosh, K. (2010, April). Exploring how level of training, inclusion, and problem behavior affect student-teacher relationships for students with autism spectrum disorders. Paper presented at ACT's 6th Annual Focus on BC Research Event.

Brown, J. A., McIntosh, K., & MacKay, L. D. (2009, August). Building district-level capacity to implement and evaluate school-wide PBS. In K. McIntosh (chair), [Beyond Efficacy: Systems-Level Variables in Adapting and Sustaining School-Wide Positive Behavior Support]. Symposium conducted at the 2009 Annual Convention of the American Psychological Association, Toronto, ON.

Brown, J. A., & McIntosh, K. (2008, June). Building school teams' capacity to prevent and address problem behavior through school-wide positive behavior support. In L. Ford and B. McKee (chairs), [School Psychology Systems Level Change in Action]. Symposium conducted at the 2008 Annual Convention of the Canadian Psychological Association.

Service and Specialized Training

UNIVERSITY AND PROFESSIONAL SERVICE

Leadership Roles and Affiliations

- Co-Leader of the National Association of School Psychologists (NASP) Grief and Bereavement Interventions and Research Interest Group (2012-present)
- 2011 and 2012 Student Membership Chair for the Student Affiliates in School Psychology, Division 16, APA
- Student Department Representative for the Canadian Psychological Association, 2008-10
- First Year Student Representative to the Faculty, University of British Columbia, 2007-08
- American Psychological Association, Division 16, Graduate Student Affiliate, 2008-present
- California Association of School Psychologists, Student Member, 2010-present
- International School Psychology Association, Student Member, 2011-present
- National Association of School Psychologists, Student Member, 2010-present
- Canadian Psychological Association, Student Affiliate, 2008-11
- Council for Exceptional Children, Student Member, 2008-11
- British Columbia Association of School Psychologists, Student Member, 2008-10
- Society for Research in Child Development, Undergraduate Member, 2005-08

Reviewer Roles

- Student Reviewer of proposals for the 2013 NASP Annual Convention, July '12
- Student Reviewer of proposals for the 2012 NASP Annual Convention, July '11
- Student Reviewer for the handbook *Best Practices in Crisis Prevention and Intervention in the Schools, Second Edition,* 2011

SPECIALIZED TRAINING AND CERTIFICATIONS

- Pupil Personnel Services Credential (PPS), School Psychology, Valid from December 2011-January 2017.
- Trauma Focused Cognitive-Behavioral Therapy (TFCBT) Online Training Course, April '13, *10 hours.*
- Attended a workshop on Suicide Prevention Response, December '12, *7 hours*
- PREPaRE Certification in School Crisis Prevention and Preparedness, Workshop
- 1&2, May 14-16, 2012, *20 hours*
- Attended a workshop on Psychological First Aid, October 29, 2010, *4 hours*
- Completed the Nonviolent Crisis Intervention Training Program (CPI), June 21, '10, *8 hours*
- Completed a specialized course on Applied Behavioral Analysis, November, 2009, *30 hours*
- Attended a workshop on ADHD by Dr. Sam Goldstein, October 16, 2009, *5 hours*
- Completed a specialized course on Autism Spectrum Disorders, October, 2009, *30 hours*
- Coach training in School-Wide Positive Behavior Support, August 24-26, 2009, *20 hours*
- Attended a specialized workshop on ADHD by Dr. Russell Barkley, May 6, 2009, *5 hours*
- Trained in using the School Evaluation Tool (SET) for School-Wide Positive Behavior Support, Mar. 6, 2009, *6 hours;* April 6-7, 2009, *15 hours*
- Fluent in French; Understanding of Spanish

ABSTRACT

School Psychology around the Globe: Examining Relationships with Economical, Cultural, Educational, and Professional Variables

by

Jacqueline A. Brown

Despite the fact that the field of school psychology continues to develop rapidly in many regions around the world, little information is available about the training, roles, and responsibilities of school psychologists. The present study provides valuable information by expanding upon previous international school psychology research by investigating key factors that influence the presence, preparation, and practice of school psychology. More specifically, the present study examined the effect of gross domestic product (GDP), public spending on education, and public support for education on the ratio of school psychologists to students, level of degree offered, and status of school psychologists. Country differences on child autonomy with respect to the ratio of school psychologists to students, level of degree offered, and status of school psychologists were also investigated. Professionals in the field of school psychology in 47 countries completed the School Psychology International Survey (SPIS), which includes 83 multi-part items that address the nature and status of school psychology in their countries. Data from 43 countries was used due to missing items on multiple variables for four countries. Items from the SPIS were utilized, along with

available data from the Central Intelligence Agency (CIA) World Factbook, World Bank Group, and World Values Survey for each of the 43 countries. Simultaneous logistic regressions and independent samples *t*-tests were conducted to determine associations and mean differences among the abovementioned economic, cultural, educational, and professional variables. Results indicated that GDP, public spending on education, and public support for education did not significantly predict the ratio of school psychologists to students, level of degree offered, and status of school psychologists. Furthermore, no significant differences were found between different mean levels of child autonomy for any of the three examined variables. The results are discussed with regard to previous and future research, limitations, and implications for the presence, preparation, and practice of school psychology at an international level.

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CHAPTER ONE: INTRODUCTION

Researchers examining international school psychology have described the specialty as one where school psychologists provide individual assessments to children displaying cognitive, emotional, social, or behavioral difficulties; develop and implement intervention programs; consult with teachers, parents, and other key professionals; engage in program development and evaluation; conduct research; and prepare and supervise others. Numerous titles have been given in place of school psychologist to those who deliver such services, including educational psychologist, psychologist in the schools, counselor, and psychologist in education (Jimerson, Oakland, & Farrell, 2007, p. 1).

The 1948 UNESCO report on school psychology and a follow-up of this report by Wall (1956) examined educational and school psychological policies and practices in developed and developing European countries. These reports focused on various topics, such as the characteristics and preparation of school psychologists, as well as political regulations of services. Guidelines were established in the 1956 report on the recommended ratio of school psychologists to students (1:7,000 or less) and the preparation and practice of school psychologists. The International School Psychology Association (ISPA) has since developed guidelines to help define and contribute to the preparation and practice of school psychology (Cunningham & Oakland, 1997). These include receiving a degree in a school psychology program in a department of psychology or educational psychology, a school of education, or a professional school; receiving

both training and supervision in various areas such as counseling, assessment, and consultation; and implementing these skills by providing direct services to individuals, groups, and systems.

Despite such attempts to develop school psychology services at an international level, sixteen out of the twenty countries with the largest populations (e.g., India, China, Indonesia, & Pakistan) do not have established school psychology services (Jimerson, Stewart, Skokut, Cardenas, & Malone, 2009). Although such services are emerging in various countries, most children do not have access to them. Even in countries with established school psychology services (e.g., Brazil and Germany), these services are often limited to private schools or specific regions (Oakland & Jimerson, in press). Eighty-three out of 192 member states of the United Nations provided evidence of school psychological practices (Jimerson, Skokut, Cardenas, Malone, & Stewart, 2008). Furthermore, approximately 939 million children worldwide live in countries that have ratios of school psychologists to students greater than 1:10,000, whereas only 572 million live in countries with ratios less than 1:10,000 (Jimerson et al., 2009).

Several qualities may account for the variation, including differences in economic stability, cultural values and beliefs, support provided to children requiring special education, development of psychological organizations, and access to education. These qualities were highlighted initially by Catterall (1982) and Saigh & Oakland (1989) and have continued to be a focus in recent research

(e.g., Oakland & Jimerson, 2007). Economic circumstances reportedly have a strong effect on the level of psychological services provided within and among countries (Saigh & Oakland, 1989). Psychology develops faster in countries with similar cultural orientations as compared to those with different orientations. Although education may be compulsory, a large number of children are not attending school in developing nations.

Although the field of school psychology continues to develop rapidly, few studies have made comparisons between the roles and responsibilities of school psychologists in different countries. The present study addressed these issues by examining how the presence, preparation, and practice of school psychology is related to a country's economic and cultural factors, as well as to the public support provided to education and school psychologists.

Gross Domestic Product

A country's gross domestic product (GDP) is one important economic factor that has been examined in numerous studies related to both educational opportunities and psychological well-being. The GDP at purchasing power parity (PPP) is used often when examining a country's living conditions and resources. It has been defined by the Central Intelligence Agency (CIA) World Factbook (2012) as the sum value of all goods and services that a nation produces each year. Another component of GDP, public spending on education (percent of GDP on education), also is relevant when considering the implications of a country's economical conditions on the development of education and available

psychological resources. The World Bank Group (2012) defines public spending on education as the total public expenditure (current and capital) on education expressed as a percentage of a country's GDP in a particular year.

Countries with lower GDP generally have higher birth rates and thus a lower investment in child quality, lower levels of education, and fewer children attending schools (Gupta, Verhoeven, & Tiongson, 2002; Moav, 2005). Associations between education spending and GDP are significant, with GDP also being related to school enrollment rates (Gupta, Verhoeven, & Tiongson, 2002). Consequently, there tends to be less education spending (percent of GDP) in countries with lower GDP. The quality of education also is positively associated with economic levels (Barro, 1991). Along these same lines, the development in education is a function of economic growth, with individual and nation-wide school performance having an increasing effect on a country's economy (Guthrie, 1990). Educational opportunities and economic deprivation in low and middle-income countries are linked, with economic deprivation also being associated with detrimental mental health outcomes for children (Patel, Flisher, Nikapota, & Malhotra, 2008).

The effect of GDP with respect to the preparation and practice of school psychologists at an international level also has been examined. Professionals in school psychology from 54 countries completed a 475-item questionnaire that focused upon six different areas, including characteristics of school psychologists, nature of school psychology services, and university programs and professional

regulation issues (Oakland and Cunningham, 1992). Fifty-five percent had doctoral degrees, 41 master's degrees, and 4 percent had bachelor degrees. The majority had either a degree in educational psychology (39 percent) or psychology (39 percent), with four percent having a degree in education and 18 percent having one in a different area. With respect to GDP, results of this study indicated that, when compared to lower GDP countries, higher GDP countries typically have a higher presence of school psychologists (M = 2126 vs. M = 307; p< .001), more master's than undergraduate programs (High GDP: 5 undergraduate and 42 master's; Low GDP: 55 undergraduate and 40 master's), fewer external threats (e.g., lack of public support for education-15% for high versus 54% for lower GDP countries), and lower school psychologist to student ratios (Median Ratios: 1:3,500 vs. 1:26,000). Consequently, because school psychologists in less developed countries with lower GDP typically are less educated, poorly paid, and experience more threats to their profession, Oakland and Cunningham suggest that they may benefit from increased preparation and funding of resources from external sources.

More recent research also collected data comparing the provision of school psychology services and preparation of professionals in different countries. The International School Psychology Survey (ISPS; Jimerson & ISPA Research Committee, 2002) is comprised of 46 items that examined five different school psychology domains: characteristics of school psychologists, training and regulation, roles and responsibilities, challenges, and research perceptions of

school psychologists. The ISPS has been translated into different languages for use across countries, with various research studies examining these data (e.g., Jimerson, Graydon, Curtis, & Staskal, 2007; Jimerson et al., 2004; Jimerson et al., 2006). Descriptive analyses, including frequency of responses, were typically computed to examine results within and across each country. Within each of these studies, multiple participants responded from each country, typically being practicing school, clinical, or developmental psychologists and not considered as having a particular expertise in school psychology. Many studies made comparisons between lower and higher GDP countries; however, unlike the findings reported by Oakland & Cunningham (1992), results from these abovementioned studies (Jimerson et al., 2004; Jimerson et al., 2006) suggested that both ratios of school psychologists to students and external challenges did not appear to differ in lower and higher GDP countries.

Because of this discrepancy in findings between these seminal studies that examine international school psychology, additional research should further explore possible differences in lower and higher GDP countries. This information may enable researchers to determine whether additional resources need to be invested in lower GDP countries to help them expand upon and increase the number of children having access to school psychological services. Oakland and Cunningham's 1992 study was conducted in the 1980's and now may be outdated. Since then, numerous changes have occurred across countries with respect to the ratios of school psychologists to students and level of degree offered, as well as

other key variables (Jimerson, Oakland, & Farrell, 2007b; Saigh & Oakland, 1989). For example, more school psychology programs have now been established throughout the world, leading to a greater number of trained professionals within this specialty of psychology. Furthermore, studies conducted by Jimerson and colleagues only utilized descriptive and not inferential statistics, thus limiting the external validity of their conclusions. Finally, despite the relevance of public spending on education (percent of GDP), the influence of this variable has not been examined with respect to school psychology.

Public Support for Education

Along with GDP, public support for education also affects the advancement and support of school psychology within developed and developing countries, particularly since the field has its roots in both psychology and education. An important international conference on children's rights in education was held in Copenhagen, Denmark, in April 1998 (Cohen, Erickson, Flekkoy, & Hart, 1999). Its goal was to promote a child's rights and development through education, through a collaborative effort between various international agencies, including the International Bureau of Education, International School Psychology Association, and the Non-Governmental Organization (NGO) Group for the Convention on the Rights of the Child. Based on their discussions, sixteen key themes were identified, including education being a right and not a privilege for each child, the obligation of society to fulfill the child's rights through education, education and learning persisting beyond the school setting, and that

education must respect individual and contextual differences. Although the focus was on ensuring child welfare and enforcing human rights in school practices that will subsequently contribute to increased awareness of such rights in society, these agencies also acknowledged that inadequate funding might make the proper implementation of such practices more difficult.

Despite economic limitations, countries are attempting to promote education and further develop other services provided to children. For example, Daniels (2010) highlighted the long history of discrepancy between the quality of education and provision of services in rich and poor areas of South Africa, based primarily on racial differences. Less funding and fewer specialized services have been given to students who are not white, with many children who experienced learning challenges being excluded from education. Daniels indicated that present and future goals (2009-2021) are to move toward inclusive education, ensuring all students with special needs who have been segregated or are not attending school are included in education programs and that diverse learner needs are addressed. He also accentuated the critical role that school psychologists have in the development of inclusive education, helping address barriers that impede learning, and collaborating with other key stakeholders to ensure public support and quality education for all children.

There is an international emphasis on promoting and developing education. However, research that examines factors that influence the provision of school psychological services frequently report lack of public support for

education as a challenge for the specialty of school psychology. In studies that examine ISPS data (Jimerson & ISPA Research Committee, 2002), this lack of support is reported in many countries, with a higher percent of respondents endorsing less support in Albania (46%), Estonia (67%), Greece (24%), Germany (43%), Russia (88%), and Egypt (42%; Jimerson, Alghorani, Darweish, & Abdelaziz, 2010; Jimerson et al., 2004; Jimerson et al., 2006). In many of these countries, the low status of education also is a concern (e.g., 27% of respondents endorse it as being a concern in Albania, 25% in Estonia, and 47% Egypt). In some of the above countries such as Russia (Jimerson et al., 2006) and Egypt (Jimerson et al., 2010), school psychologists primarily held bachelors level degrees and there were smaller school psychologist to student ratios than in other countries examined. The authors account differences in degree levels and ratios to the fewer school psychologists within these countries, with many students not having access to school psychology services. However, this was not the case for Germany (Jimerson et al., 2006), whose respondents endorsed a lack of public support for education, yet German school psychologists held higher degrees. On the other hand, some countries that were less likely to endorse lack of support for education as being a problem (e.g., Australia), reported a higher ratio of school psychologists to students, with its professionals often holding master's degrees. Consequently, these findings indicate mixed results with respect to the effect of lack of support for education on the provision of services and training of school psychology.

Other research has also highlighted the importance of public education for school psychology. Both Oakland & Cunningham (1992) and Curtis, Hunley, & Chesno (2004) examined how the ratio of school psychologists to students was influenced by special and regular education services. Oakland & Cunningham found that ratios were often more favorable in countries where special education services had been established. Curtis and colleagues, focusing more specifically on various types of school psychology services within the United States, found that lower ratios of school psychologists to students often were tied to an increased number of students being served through individual and group counseling, and higher ratios being associated with greater special education activities, such as psycho-educational assessments. Their study provided a summary of trends of school psychology demographics and employment conditions, with data being collected from the 1989 to 1990 or 1999 to 2000 school year. Because school psychology services often are better established in countries with developed education systems that receive higher levels of public support (Oakland & Jimerson, 2008), further research that utilizes more recent data that specifically examines whether public support for education directly influences the practice and presence of school psychology is needed

Child Autonomy

Cultural factors, such as self-expressive and emancipative values that highlight human equality and autonomy, have also been linked to GDP, education, and the presence of school psychology. Self-expressive values

typically are those that value freedom of expression, freedom to make decisions, political activism, environmental protection, gender equality, and tolerance toward minorities (Inglehart & Welzel, 2009). Along these same lines, emancipative values prioritize gender equality instead of patriarchy, tolerance instead of conformity, autonomy instead of authority, and participation instead of security (Welzel & Inglehart, 2009). Although emancipative and self-expression values are separate terms, they often are used interchangeably, represent similar beliefs, and have been found to correlate strongly (r = .90; Inglehart & Welzel, 2005; Welzel & Inglehart, 2009). However, emancipative values tend to focus more on the theme of participation (Welzel & Inglehart, 2009). Personal autonomy for children with respect to education has been examined as an emancipative value, including the promotion of child independence and imagination as indication of autonomy, along with obedience as a quality that prevents it (World Values Survey Association, 2011).

The promotion of child autonomy through freedom of speech has received international focus. As summarized by Lundy (2007), Article 12 of the United Nations Convention on the Rights of the Child in November 1989 emphasizes the right of the child to be heard and participate freely in society. More specifically, it endorsed the child's right to have space (i.e., given the opportunity to express a view), a voice (i.e., they must be facilitated to express their views), an audience (i.e., the view must be listened to), and influence (i.e., the view must be acted upon when appropriate). Despite this endorsement, adults in some countries

remain skeptical about children having these rights; typically believing that they either lack the ability to provide meaningful input when making decisions, or that providing them with self-control will undermine adult authority and lead to less structure at school. Even with these concerns, it has also been acknowledged that such freedom will lead to positive outcomes both within the child and school environment (Lundy, 2007).

Although less research has focused specifically on child autonomy with respect to education and GDP, studies found strong associations between self-expressive and emancipative values. For example, findings from Pettersson (2003) showed a high correlation between GDP per capita and emancipative values ($r = .78$, $p < .001$). Furthermore, Welzel and Inglehart (2008) found that highly educated individuals typically place a higher value on autonomy and self-expression, with children coming from more economically stable families also receiving greater educational opportunities.

The value systems of higher- and lower-income countries differ, with countries with higher per capita GDP (e.g., Canada, New Zealand, and Italy) often emphasizing self-expression and emancipative values such as autonomy and freedom of expression. In contrast, countries with lower per capita GDP (e.g., Morocco, Egypt, and Zimbabwe) esteem survival values such as economic and physical security (Inglehart & Welzel, 2005; Inglehart & Welzel, 2009; Welzel & Inglehart, 2009). Furthermore, economic growth, rising levels of education, and diversity of social opportunities lead to greater levels of autonomy, which in turn

encourage people to be more receptive to individual freedom and equality (Welzel & Inglehart, 2008).

The influence of a country's cultural conditions, including autonomy, on the presence and strength of school psychology (Cook, Jimerson, & Begeny, 2010; Cunningham, 2007; Oakland & Jimerson, 2007) also has been examined. Cunningham (2007) examined levels of professional autonomy in different countries using data collected by Oakland & Cunningham (1992). A level of professional autonomy was defined for each country, with comparisons made through naturalistic inquiry to rate the similarity of each country on autonomy indicators. An autonomy configuration then was obtained and visually displayed on a plot through multidimensional scaling analysis, with countries with similar levels of autonomy being grouped together. Data also were utilized to determine whether differences existed in internal and external threats to the specialty of school psychology in lower and higher autonomy countries based on responses to a 15-item rating scale questionnaire.

Thirteen out of 54 countries with stronger levels of professional autonomy (e.g., New Zealand, Denmark, Finland, France, and Israel) also had higher GDP and lower population growth rates than other countries. Furthermore, specific external and internal threats to school psychology were examined in higher and lower autonomy countries, with lower status of psychology, as well as a greater emphasis on special education activities such as assessments, being found in low autonomy countries. Cunningham also emphasized the importance of addressing

cultural diversity and establishing means for expressing respect, support, and sharing knowledge, qualities that can help promote professional autonomy and contribute to the field of international school psychology.

Cook and colleagues (2010) examined how cultural modernity, and more specifically, self-expression values and gender empowerment relate to the presence of school psychology. Their study was one of the first quantitative analyses that examined the effect of sociocultural/political factors on the presence of international school psychology. These researchers retrieved their data from multiple sources, including Jimerson, Skokut and colleagues (2008), the CIA World Factbook (2008), and the self-expression values composite from the World Values Survey (Inglehart & Welzel, 2005). They hypothesized that self-expression values would predict the presence of school psychology above and beyond a country's socioeconomic development.

A significant positive relationship was found between the following: self-expression values and the presence of school psychology (r = .42), self-expression values and per capita GDP (r = .54), and per capita GDP and the presence of school psychology (r = .54). Per capita GDP independently accounted for 30 percent of the variance in school psychology and the combined gender empowerment and self-expressive values contributed an additional 9 percent of the variance. It is logical that the presence of school psychology is greater in countries emphasizing such values, since this specialty depends on the overall strength of psychology within a country, which typically is only strong in

countries that endorse the importance of individual differences. The authors also recommended that future research focus on internal factors of school psychology, speculating that this field might be more developed in countries with strong professional forces, including those with active leaders and established school psychological organizations.

Despite attention given to a child's rights both in school psychology and international policies, few studies have examined how a country's level of child autonomy affects the development of school psychology. More specifically, although both Cunningham (2007) and Cook and colleagues (2010) examined how levels of autonomy are related to internal and external school psychological variables through comprehensive quantitative analyses, their focus has been on professional instead of child autonomy. Additional research that explores whether views of child autonomy across countries influence the presence and perceptions of school psychology may therefore expand upon and contribute a different dimension to past research.

Status of School Psychologists

Professional status and identity of school psychologists has historically been a concern in the field of school psychology (Oakland & Saigh, 1989). In his 1982 chapter on international school psychology, Catterall predicted that there were approximately 40,000 psychologists around the world either working in schools or with school-aged children. Ten years later, Oakland & Cunningham (1992) estimated 87,000 school psychologists in 54 countries. Jimerson and

colleagues (2009) approximated similar numbers, with findings showing that by 2007 there were approximately 76,100 school psychologists throughout 51 countries. Current estimates suggest that there are approximately 100,000 school psychologists (Oakland, personal communication, May 10, 2013). Consequently, the presence of school psychology has risen considerably since Catterall's 1982 estimation.

Despite the increase in number of school psychologists internationally, almost half (42 percent) of the school psychologists identified by Jimerson and colleagues (2009) were in the United States (32, 300). The country with the second largest number of school psychologists was Turkey (11, 327), with Jamaica having the fewest school psychologists (1). Factors determining the presence of school psychology include: a) professionals identified as fulfilling duties of school psychologists, b) regulations that require school psychologists to be licensed or credentialed, c) professional associations of school psychology, d) university programs in school psychology, and e) university programs that provide doctoral level preparation (Jimerson, Skokut et al., 2008). Data were collected through a systematic search process, examining existing publications, searching for professional labels and descriptors online, and identifying and contacting available colleagues in each country. Data from the Central Intelligence Agency World Factbook and UNICEF also were utilized. Only 11 of 83 countries were identified as having evidence of school psychology in all five areas (e.g., Australia, Cyprus, Brazil, Greece, and Canada), with the majority

having three or fewer factors present within their country (e.g., Albania, Belgium, China, and India). More specifically, although school psychology was present in 83 countries, only 29 countries had licensing or credentialing requirements, 39 had professional associations, 56 had university preparation programs, and 19 countries provided doctoral level preparation (Jimerson, Skokut et al., 2008). Each of the 83 countries examined by these researchers had professionals fulfilling the responsibilities of school psychologists. Only 83 out of 192 countries in the United Nations endorsed the presence of school psychology. Thus, the specialty does not exist in all countries. These statistics are important considerations when examining the status of school psychology at a global level.

With respect to the professional status and identity of school psychologists, many school psychologists identify themselves as having low prestige, receiving little recognition for their services, and having restrictions placed on their services by the public and educators (Oakland & Saigh, 1989). Due to these challenges, the professionals interviewed in their study indicated that they would increase their status by becoming increasingly visible within the education system, instead of focusing primarily on special education activities. Since this study was conducted, additional research has also found that low status of school psychology frequently is an external threat to the field. For example, 40% of professionals who responded to a survey indicated that the low status of school psychology is a threat to the specialty, with lower GDP countries rating this and other external threats as more prevalent than higher GDP countries

(Oakland & Cunningham, 1992). Furthermore, various countries that completed the ISPS (Jimerson and ISPA Research Committee, 2002) also reported a low status of school psychology as being a threat. As previously described, multiple school psychology specialists completed the ISPS, with data being entered online by a representative in each country. Those countries endorsing low status as a threat include Australia, China, Germany, and Italy (Jimerson et al., 2006), Georgia, Switzerland, and the United Arab Emirates (Jimerson, Graydon et al., 2008), and Albania, Cyprus, and Estonia (Jimerson et al., 2004). The percentage of professionals in the abovementioned countries endorsing this threat ranged from 13 to 65, with the highest percentage reported in Germany and the lowest in Switzerland.

In these studies conducted by Jimerson and colleagues, school psychologists in both lower and higher GDP countries report a threat to the status of school psychology. Consequently, these results indicate that GDP does not influence such challenges and are unlike the findings of Oakland and Cunningham (1992). Furthermore, the findings of Jimerson and colleagues do not suggest any consistency in terms of ratio of school psychologists to students or degrees held. However, quantitative analyses were not conducted to examine direct relationships between the status of school psychologists and these variables, once again limiting the external validity of these findings. Because the status of school psychologists is important to the future development of the field,

additional research should examine associations between this external threat and other qualities that influence the development of school psychology.

Proposed Study

The goal of the proposed study is to explore how a country's GDP, public spending on education (percent of GDP), public support for education, and child autonomy are related to the presence, preparation, and practice of school psychology across countries. The ratio of school psychologists to students, level of degree offered, and status of school psychologists, respectively will be used to represent indicators of the presence, preparation, and practice of school psychology. This study aims to contribute to the current literature in various ways.

First, although previous research in the field of economics and education have examined associations between GDP, education, autonomy, and mental-health outcomes (e.g., Gupta et al., 2002; Patel et al., 2008; Pettersson, 2003), there is little school psychology research that provides a quantitative analysis of these relationships. Cook and colleagues (2010) found significant relationships between per capita GDP and the presence of school psychology, self-expression values and the presence of school psychology, and self-expression values and per capita GDP. Although other studies have speculated country differences in GDP, autonomy, status of education, ratio of school psychologists to students, and level of degree obtained (e.g., Cunningham, 2007; Jimerson et al., 2007; Oakland & Cunningham, 1992), the findings are mixed. Research conducted by Oakland and

colleagues (Cunningham, 2007; Oakland & Cunningham, 1992) utilized data collected in the late 1980's. They now may be outdated, as the field of school psychology has undergone various developments since that time, such as a decrease in the recommended ratio of school psychologists to students and an increase in practicing school psychologists (Jimerson, Oakland, & Farrell, 2007b; Saigh & Oakland, 1989). Although Jimerson and colleagues collected more recent data (e.g., Jimerson, Graydon et al., 2008; Jimerson et al., 2007), practicing psychologists and not professionals with more requisite knowledge in school psychology completed the ISPS.

Secondly, although previous studies have investigated how self-expression values and professional autonomy may differ and influence school psychology across countries (e.g., Cunningham, 2007; Cook et al., 2010), research has not looked at the effect of a country's view on child autonomy. Along these same lines, even though various studies have examined GDP and support for education, public spending on education (percent of GDP) has not been included, despite its potential relevance and value to professional perceptions of support for education. Finally, the status of school psychologists plays a significant role in the acceptance and development of school psychology, with both current and past research indicating that low status is a threat to this specialty (Jimerson et al., 2006; Oakland & Saigh, 1989). However, research in this area either may be outdated or is speculative and based on qualitative reports and descriptive statistics.

Therefore, the present study will expand these findings by examining the effect of GDP, public spending on education (percent of GDP), public support for education, and child autonomy on the ratio of school psychologists to students, level of degree offered, and status of school psychologists. School psychology data utilized within this study was recently collected within the past five years, with responses being provided by identified school psychology professionals with requisite knowledge. Finally, the current study is intended to expand upon previous research by examining child autonomy and public spending on education.

Research Questions and Hypotheses

Based on the preceding literature review, this study will address the following research questions:

Question 1: When examined simultaneously, are GDP, public spending on education, and public support for education predictive of (a) the ratio of school psychologists to students, (b) level of degree offered, and (c) status of school psychologists?

Hypotheses:

a) GDP will be a positive predictor of the level of degree offered and status of school psychologists and a negatively predictor of the ratio of school psychologists to students.
b) Public spending on education (percent of GDP) will be a positive predictor of the level of degree offered and status of school

psychologists and a negative predictor of the ratio of school psychologists to students.

c) Public support for education will be a positive predictor of the level of degree offered and status of school psychologists and a negative predictor of the ratio of school psychologists to students.

Question 2: Does the level of child autonomy differ among countries with a smaller or higher ratio of school psychologists to students?

Hypothesis: Significant mean differences will exist across countries on level of child autonomy, with countries that have small ratios of school psychologists to students having a higher level of child autonomy than countries with larger ratios.

Question 3: Does the level of child autonomy differ across countries offering master or doctoral-level training when compared to those only offering bachelor-level or no training?

Hypothesis: Significant mean differences will exist across countries in child autonomy, with those providing master or doctoral level training having a higher level of child autonomy than those with bachelor-level or no training.

Question 4: Does the level of child autonomy differ across countries where school psychologists hold higher status versus those countries where they hold lower status?

Hypothesis: Significant mean differences in child autonomy will exist across countries, with child autonomy being higher in countries in which the

status of school psychologists is higher than in countries with lower status of school psychologists.

CHAPTER TWO: METHOD

Participants

In 2007, an invitation to complete the School Psychology International Survey (SPIS; Jimerson & Oakland, 2007) was sent to affiliates of the International Institute of School Psychology in 62 countries. Out of the countries invited, 47 responded, with data collection occurring through the use of a web-based survey during 2008. Independent samples *t*-tests were conducted to determine whether significant differences in GDP and percent spending in education existed between those countries who did and did not respond to the SPIS. No significant differences were found between groups. Multiple emails were sent to these country affiliates to identify the most knowledgeable school psychology professionals based on consensus amongst numerous contacts within a country. The majority of the 47 countries had two affiliates with requisite knowledge in school psychology who first completed the survey individually, and then discussed, revised, and inputted their country-specific information into one web-based questionnaire. The SPIS was administered in English, with all respondents being fluent in this language. The countries from which data were collected are included in Table 1.

The respondents completing the online survey varied in terms of level of degree completed, with 18% of respondents having a master's degree, 14%

having a specialist's degree (master's + 1 or 2 years), and 63% having a doctoral degree. These degrees were completed in different areas of psychology and education: 35% in general psychology, 27% in school or educational psychology, 8% in clinical psychology, 6% in education and psychology, 4% in counseling and educational/school psychology, and 2% in each of education, counseling psychology, clinical and school psychology, clinical and counseling psychology, developmental and clinical psychology, and vocational psychology. The area of concentration was not provided for 6% of the respondents. The current professional positions of these respondents varied, including university professor, researcher and lecturer, head of school psychology services, psychotherapist, school psychologist, school-based consultant, and director of educational or school psychology services. The majority of these respondents had been associated with professional school psychology for 20 years (12%), although the range of years associated varied from 1 (2%) to 40 (4%). Data from the Central Intelligence Agency (CIA) World Factbook (2012), World Bank Group (2012), and World Values Survey (2011) were also utilized from each of these 47 countries. Along with the SPIS, these sources of data are described below.

Table 1

Countries Participating in the SPIS

Country Name (N = 47)			
Austria	Estonia	Ireland	Scotland
Belgium	Finland	Jamaica	Seychelles
Belize	France	Lebanon	Slovak Republic
Brazil	Germany	Lithuania	South Africa
Canada	Greece	Malta	Suriname*
Canary Islands	Grenada	Netherlands	Switzerland
Colombia	Hong	New Zealand	Turkey
Croatia	Kong	Norway	United Arab Emirates*
Cyprus	Hungary	Pakistan	United States of America
Czech Republic	Iceland	Portugal*	Venezuela
Denmark	India	Puerto Rico*	Vietnam
England	Indonesia	Romania	Zimbabwe

*Country dropped from analysis due to missing data on four or more variables.

Procedure and Measures

The following variables were collected from the sources described below and analyzed for the purposes of the present study.

Dependent Variables

Ratio of School Psychologists to Students. Data for the continuous variable ratio of school psychologists to students was taken from the School Psychology International Survey (SPIS; Jimerson & Oakland, 2007), which was extensively developed using and expanding upon items from multiple sources, including those from previous surveys completed by Oakland and colleagues (Jimerson & ISPA Research Committee, 2002; Oakland & Cunningham, 1992) and the NASP membership survey completed every five years (e.g., Curtis et al., 2008). International affiliates also provided revisions so that the items on the SPIS were appropriate for the contemporary international context. The SPIS consists of 83 multi-part questions regarding the nature and status of school psychology in their countries and includes items addressing: (a) School Psychology Services: Professional Demographics, Responsibilities, Assessments Used, Interventions Used, (b) Professional, Research, and Legal Issues, and (c) Programs, Professional Preparation: Characteristics of Students, Faculty, and Institutions. The response format varies throughout the questionnaire, including 3-, 4-, and 5-point rating scale formats, written and "yes" or "no" responses, percentages, and filling in bubbles to denote the appropriate response. On the SPIS, respondents were asked to indicate the ratio of school psychologists to students (1 to___) in schools that provide school psychological services. The complete SPIS is included in Appendix A.

To ensure that the ratios listed in the SPIS were accurate, data were triangulated from multiple sources. When discrepancies existed, the following computation was used to determine the exact ratio of school psychologists to students (Jimerson et al., 2009). First, the total number of school-age children within a country (Central Intelligence Agency World Factbook, 2012) was divided by 15 (birth through 14 years 11 months are represented in the Factbook). Then, this number was multiplied by 12 to account for a standard of 12 years of compulsory education for each country. These calculations yielded the standard number of school-age children, which was divided by the number of school psychologists to determine the ratio for each country. Based on this information, approximately 37% of the countries had a ratio of less than or equal to 1:2,000 and 63% had ratios greater than 1:2,000.

Level of Degree Offered. Similar to the previously described variable, data for the level of degree offered were taken from the SPIS (Jimerson & Oakland, 2007). Respondents were asked to write the number of professional preparation programs available in their country at six different levels (e.g., bachelor's 3 or 4 year program, specialist's, master's, and doctoral). This information was then recoded into a categorical variable for the purposes of the present study, with countries without school psychology training being coded as "0," those only having bachelor degree programs coded as "1," those having master's/specialist programs coded as "2," and those with doctoral level training coded as "3." If a country had more than one level of degree offered in school

psychology (e.g., master's and doctoral), they were coded with the highest level of degree provided (i.e., "3"). Some respondents (N=13) did not provide information regarding the highest level of degree offered in their country. Consequently, these missing data were obtained from the previously published work of Jimerson and colleagues (2008), as well as through email correspondence with the respondents who originally completed the survey. Approximately 28% of the countries surveyed did not provide training in school psychology, 12% had bachelor level training, 30% provided master's or specialist level training, and 30% had doctoral level training.

Status of School Psychologists. Status of school psychologists also was taken from the SPIS (Jimerson & Oakland, 2007). An overall composite was created based on the following five items that address the status of school psychologists: 1) school psychologists are seen as having low status by educators, 2) school psychologists are seen as having low status by psychologists, 3) school psychologists are seen as having low status by the public, 4) school psychologists are seen as having low status because, within the country, the status of psychology is low, and 5) school psychologists have low status because, within the country, the status of education is low. It is a categorical variable and each of the five items was completed using a 3-point rating scale (*1* = never, *2* = sometimes, *3* = often), with respondents being asked to endorse the extent to which these items constitute problems for school psychologists in their country. Prior to creating this composite, Cronbach's alpha coefficient was computed to

determine the internal consistency of these items (Nunnally & Bernstein, 1994). Internal consistency was good (.84), indicating that they measure the same general construct and produce similar scores for this construct. Consequently, the creation of one composite score representing all five items was appropriate. Approximately 47% of the respondents indicated that low status of school psychologists is "never" a problem, 42% indicated that it is "sometimes" a problem, and 11% indicated that it is "often" a problem.

Child Autonomy. Survey data from the World Values Survey (WVS; World Values Survey Association, 2009; 2011) were utilized for child autonomy, a continuous variable. The WVS was conducted in various languages in conjunction with the European Values Survey (EVS) to investigate sociocultural and political change worldwide. The survey addressed various areas of life, including family, work, religion and morale, and politics. Five waves of the survey were conducted in 1981, 1990-1991, 1995-1996, 1999-2001, and 2005-2007. Data collected in the 2005-2007 wave were used. Respondents in approximately 80 countries completed the survey in at least one wave of the study, with these countries including approximately 85 percent of the world's population. This survey and its related publications can be retrieved online at www.worldvaluessurvey.org

Based on these data, an autonomy index was developed by Ingelhart (1997) to represent the degree to which children are encouraged to exhibit personal autonomy in their decision-making and behavior. The autonomy index

represents a 4-item one factor solution derived from factor analysis using data from the WVS: a) independence, b) determination, c) obedience, and d) religious faith. Respondents were asked whether they found the abovementioned qualities that children can be encouraged to learn at home important. Each respondent received an autonomy index score, with a standardized weighted average being computed that captured the national-level autonomy within countries (Cook, personal communication, February 5, 2013). Results from previous work indicate that internal consistency (Cronbach's alpha) of the autonomy composite is acceptable (.70; Ingelhart, 1997). Available autonomy data for each of the countries that completed the SPIS were used and labeled as "child autonomy," since the items included within this composite are child directed.

Independent Variables

Gross Domestic Product (GDP). The gross domestic product (GDP) at purchasing power parity (PPP) for each country was taken from the Central Intelligence Agency (CIA) World Factbook (2012) and is a continuous variable. The World Factbook provides information on 267 countries and locations around the world, including their history, people, economy, government, and communications. As previously indicated, the World Factbook defines the GDP at PPP as the sum value of all goods and services that a nation produces each year and is often preferred by economists when comparing the economic development across countries. The CIA World Factbook indicates that computing this measure is difficult and that the statistic is provided in US dollars, with this value having

been assigned to all goods and services within a country, even if such resources do not have a United States equivalent (e.g., specific types of military equipment not being available in the United States). Consequently, estimates for some countries are based on a small number and varied type of resources.

Public Spending on Education (percent of GDP). The percent of GDP spent on education data is a continuous variable that was retrieved from the World Bank Group (2012) and was utilized as another indicator of support for public education. The World Bank Group provides information on approximately 213 countries and locations around the world, including features related to education, health, poverty, and economic policy. The World Bank defines public expenditure on education (percent of GDP) as the total public expenditure (current and capital) on education expressed as a percentage of the GDP in a particular year. This includes government spending on educational institutions (public and private), education administration, and transfers/subsidies for private entities (e.g., students/households). For the current study, the majority of the data (N =38) were taken from 2008, because data for all of these countries were not available from subsequent years. However, some data (N =7) were taken from 2003-2007 due to availability. Data was not provided for 2 of the 47 countries (Suriname and Puerto Rico).

Public Support for Education. Data on public support for education also was retrieved from the SPIS (Jimerson & Oakland, 2007). It is a categorical variable, with a composite being created from the following three items to

represent this variable: 1) lack of stability in the educational system, 2) too many educational reforms, and 3) lack of public support for education. For each of the three variables, respondents were asked to indicate the extent to which each item constitutes a problem for school psychologists in their country using a 3-point rating scale (*1* = Never, *2* = Sometimes, *3* = Often). Similar to the status of school psychologists variable, prior to creating this composite, Cronbach's alpha coefficient was computed to determine the internal consistency of these items (Nunnally & Bernstein, 1994). Internal consistency was good (.75), indicating that they measure the same general construct and produce similar scores for this construct. Consequently, the creation of one composite score to represent all three items was reasonable. Responses indicated that lack of support for education is "never" a problem for 35% of countries, "sometimes" a problem for 51% of countries, and "always" a problem for the remaining 14% of countries.

Data Cleaning and Screening

The data were screened and cleaned to identify outliers, missing data, and check assumptions. No univariate or multivariate outliers were detected and all variables met the assumption of normality. Furthermore, none of the independent (predictor) or dependent variables were highly correlated, indicating that there were no issues with multicollinearity. However, some of the variables did not meet the assumptions for linearity and homogeneity of variance. Consequently, as previously stated, logistic regression analyses were conducted because their use does not require the above-described assumptions. However, those variables used

in the subsequent *t*-test analyses did meet both the assumption for homogeneity of variance and normality with respect to child autonomy. Data screening also revealed that item responses for some of the variables were missing. Because four of the 47 countries (United Arab Emirates, Suriname, Puerto Rico, and Portugal) had missing items for four or five of the seven variables, they were dropped from subsequent analyses. Thirteen additional countries having one or two missing items were kept for all analyses. Consequently, data from 43 countries were used for the present study.

Data Analysis Plan

Data analysis consisted of both descriptive and inferential statistics. Analyses were conducted using SPSS version 20. Descriptive statistics, including means, standard deviations, and ranges were computed prior to comparing the countries. Inferential statistics consisted of simultaneous logistic regressions and independent samples *t*-test analyses. One-tailed analyses were used to test directional hypotheses at the Bonferroni adjusted p-level of .01

Regression Analyses

Simultaneous logistic regression analyses were conducted to determine the relative importance of GDP, public spending on education, and public support for education when predicting the ratio of school psychologists to students, level of degree offered, and status of school psychologists. Logistic regressions were chosen for the following reasons: a) the current study utilizes a combination of categorical and continuous variables, and b) the assumptions for linearity and

homogeneity of variance were not met for all variables, with research recommending the use of logistic regressions when assumptions are violated (e.g., Tabachnick & Fidell, 2007). The dependent variables (ratio of school psychologists to students, level of degree offered, and status of school psychologists) were dichotomized (value of "0" or "1"). For ratio of school psychologists to students, countries were given a code of "0" if their ratio was less than or equal to 1:2,000 and a code of "1" if the ratio was greater than 1:2,000. This division was chosen based on the recommended ratio from Jimerson and colleagues (2009) from their comparison of ratios of school psychologists to students in 51 countries. For level of degree offered, countries were either categorized as having bachelor level or no training in school psychology (code of "0") or master's/specialist or doctoral level training (code of "1"). This categorization was chosen to enable direct comparisons across countries providing specific school psychology training at the graduate level and those offering more general psychology training at the bachelor's level (or no training). Finally, for status of school psychologists, countries were categorized according to their response on the 3-point rating scale. Those indicating that there are "never" any problems with regard to the status of school psychologists were coded as "0" and those indicating that there are "sometimes" or "often" problems were coded as "1." Since the composite values were not whole numbers, they were rounded to fit into one of the two groups. This coding method enabled

comparisons between countries endorsing no problems with the status of school psychologists and those indicating that problems arise in this area.

Analyses consisted of three simultaneous logistic regressions. First, the ratio of school psychologists to students was used as the dependent variable, with GDP, public spending on education, and public support for education being entered simultaneously as independent variables. Second, level of degree offered was entered as the dependent variable, with the abovementioned three variables once again being entered simultaneously as independent variables. Finally, status of school psychologists was entered as the dependent variable, once again entering the abovementioned three independent variables simultaneously. Previous research has shown that GDP predicts support for education, presence of school psychology, and autonomy (e.g., Cook et al., 2010; Gupta et al., 2002). However, because the other two independent variables have a more direct relation to school psychology and GDP is beyond our control when making changes to further promote school psychological services and training, simultaneous regressions were chosen so that each independent variable had an equal chance of being a significant predictor within the regression equation.

T-Test Analyses

Independent samples *t*-test analyses were conducted to determine whether there were significant mean differences in child autonomy across different levels of ratio of school psychologists to students, level of degree offered, and status of school psychologists. Child autonomy was entered as the dependent variable,

with each of the three above-mentioned variables being used as grouping variables for the purpose of this analysis. The same dichotomous categories (e.g., 0= bachelor level or no training vs. 1 = master/specialist or doctoral level training) described above for each of these variables were used to define the group levels.

CHAPTER THREE: RESULTS

Descriptive Statistics

Table 2 displays the descriptive statistics for all variables. The name of the country representing the minimum and maximum values for each variable is also noted to provide more country-specific information. For example, based on the table, Grenada had the lowest ratio of school psychologists to students (1: 300) and Pakistan had the highest ratio (1: 1, 215, 435; See Appendix B). Furthermore, Zimbabwe had the lowest GDP ($500) and Norway had the highest ($53,300) GDP. With respect to public spending on education (percent GDP), Lebanon had the lowest (2%) and Denmark had the highest percent spending (7.7%). Specific country values of ratios of school psychologists to students, GDP, and percent spending on education are included in Appendix B.

For some variables (level of degree offered; status of school psychologists; public support for education), multiple countries had the same response rating for the minimum and maximum value, so countries included in the table are exemplary (see Appendix C for all countries). For level of degree offered, Turkey, Belize, and Jamaica did not have training in school psychology at any

degree level, whereas Malta, Ireland, and Estonia are examples of countries who had training at the master's or specialist level. Greece, Canada, and Croatia all had doctoral level training. For status of school psychologists, Ireland, Switzerland, and Cyprus are countries that reportedly "never" had problems with status of school psychologists, whereas countries such as Estonia and Brazil "often" had trouble in this area. Countries such as Belgium, the United States, and Canada "sometimes" had problems with the status of their school psychologists. Along these same lines, with respect to public support for education, Lebanon, Jamaica, and Iceland are examples of countries who "never" had problems, Malta, Denmark, and Estonia "sometimes" had problems, and Brazil, Venezuela, and Pakistan "often" had problems. The descriptive statistics provided in Table 2 are based on the original values and item responses for each variable and not on the dichotomized variables.

Table 2

Descriptive Statistics for Educational, Economical, Cultural, and School Psychological Variables

Variable	N	Mean	Standard Deviation	Range
Dependent Variables				
Ratio of School Psychologists to Students	43	71, 327	221, 390	300-1, 215,435 (Grenada; Pakistan)
Level of Degree Offered	43	1.60	1.18	0.00-3.00* (Turkey; Greece)
Status of School Psychologists	38	1.61	.53	1.00-3.00** (Ireland; Brazil)
Child Autonomy	36	.45	.10	.24-.62 (Zimbabwe; Norway)
Independent Variables				
Gross Domestic Product	43	25, 153	14, 593	$500-$53,300 (Zimbabwe; Norway)
Public Spending on Education (percent of GDP)	43	4.92	1.32	2.00-7.70 (Lebanon; Denmark)
Public Support for Education	37	1.83	.59	1.00-3.00** (Jamaica; Brazil)

*0= No training; 1= Bachelor Level Training; 2= Master's/Specialist Level Training; 3= Doctoral Level Training; **1= Never; 2= Sometimes; 3= Often (Lack of Support/Low Status).

Inferential Statistics

Logistic Regression Analyses

A test of the full model with all three predictors entered simultaneously against a constant-only model was not significant for ratio of school psychologists to students, level of degree offered, and status of school psychologists. Consequently, none of the predictors were significantly associated with countries designated as having ratios above and below 1:2,000, those offering no and bachelor level training compared to those with graduate level training, and those with and without reported problems regarding the status of school psychologists. This is possibly due to the small sample size, although the below effect sizes are provided to determine whether any potential variables of influence warrant investigation in further research.

For ratio of school psychologists to students, the Cox & Snell test indicated that the predictors accounted for 9% of the variance. For level of degree offered, results of this test showed that predictors accounted for 3% of the variance, and for status of school psychologists, they only accounted for 7% percent of the variance. Furthermore, when examining the odds ratios of the predictors examined for ratio of school psychologists to students, only public support for education had an odds ratio of practical importance, χ^2 (1) = .39, p = .53, OR = 1.56. More specifically, for every increment in unit on a scale of 1 to 3, a country is 1.56 times more likely to be a low ratio country. Public support for education was also the strongest predictor of level of degree offered, χ^2 (1) = .21,

p = .65, OR = 1.33, suggesting that for every increment in unit on a scale of 1 to 3, a country is 1.33 times more likely to be a country offering undergraduate or no training. Finally, public support for education was once again the strongest predictor of status of school psychologists, χ^2 (1) = .81, p = .37, OR = 1.88, suggesting that for every increment in unit on a scale of 1 to 3, a country is 1.88 times more likely to have a low status of school psychologists. The Hosmer & Lemeshow Test, which tests for goodness of fit for logistic regression models, was not significant for any of the regression analyses. Despite the analyses not being significant, these latter results suggest that the observed and expected values are not significantly different, indicating support for each model. Results are depicted in Tables 3 through 5.

Table 3

Logistic Regressions Predicting Ratio of School Psychologists to Students

	B	*SE B*	*Wald's* χ^2	*df*	*Cox & Snell* R^2	*p-* value	e^B *(Odds Ratio)*
Overall Test			3.46	3	.09	.33	
Predictors							
Constant	1.79	2.29	.61	1		.43	6.02
GDP	.00	.00	1.09	1		.30	1.00
Public Spending	-.21	.32	.44	1		.51	.81
Public Support	.44	.71	.39	1		.53	1.56

Table 4

Logistic Regressions Predicting Level of Degree Offered

	B	*SE B*	*Wald's* χ^2	*df*	*Cox & Snell* R^2	*p*-value	e^B *(Odds Ratio)*
Overall Test			1.28	3	.03	.73	
Predictors							
Constant	.05	2.13	.00	1		.98	1.05
GDP	.00	.00	1.08	1		.30	1.00
Public Spending	-.17	.30	.30	1		.58	.85
Public Support	.29	.63	.21	1		.65	1.33

Table 5

Logistic Regressions Predicting Status of School Psychologists

	B	*SE B*	*Wald's* χ^2	*df*	*Cox & Snell* R^2	*p*-value	e^B *(Odds Ratio)*
Overall Test			2.49	3	.07	.48	
Predictors							
Constant	-2.73	2.37	1.33	1		.25	.07
GDP	.00	.00	.45	1		.50	1.00
Public Spending	.42	.33	1.59	1		.21	1.52
Public Support	.63	.70	.81	1		.37	1.88

T-Test Analyses

Results from the independent-samples *t*-test indicated that no significant differences exist in child autonomy across different levels of ratio of school psychologists to students, $t(34) = 1.08$, $p = .29$, level of degree offered, $t(34) = -1.55$, $p = .13$, and status of school psychologists, $t(30) = .08$, $p = .94$. Table 6 provides descriptive statistics (sample size, mean, and standard deviation) for each group of the three independent variables utilized in the analysis.

Table 6

Descriptive Statistics for T-test Analyses

Variable	*N*	*M*	*SD*
Ratio of School Psychologists (< or = to 1:2,000)	15	.47	.08
Ratio of School Psychologists (> 1:2,000)	21	.44	.11
Level of Degree Offered (None/MA)	14	.42	.09
Level of Degree Offered (MA/Specialist/Doctoral)	22	.47	.10
Status of School Psychologists (No problems)	14	.46	.10
Status of School Psychologists (Sometimes or Often Problems)	18	.46	.10

CHAPTER 4: DISCUSSION

Summary of Main Findings

The primary goals of the present study were to investigate whether GDP, percent spending on education (percent of GDP), and public support for education are associated with the ratio of school psychologists to students, level of degree offered, and status of school psychologists in 43 different countries. GDP, public spending on education, and public support of education were expected to positively predict the level of degree offered and status of school psychologists and negatively predict the ratio of school psychologists to students.

A simultaneous logistic regression design was used to examine these hypotheses. Results indicated that contrary to the hypotheses, GDP, public spending on education, and public support for education were not significant predictors of ratio of school psychologists to students, level of degree offered, and status of school psychologists.

Secondary goals were to examine whether average levels of child autonomy differ across countries with undergraduate or no training versus those with graduate level school psychology training, those with small and large ratios of school psychologists to students, and those with high versus low perceived status of school psychologists. Mean differences were expected for each of these variables. Independent samples *t*-test analyses were utilized to examine these hypotheses. No significant differences were found between mean levels of child autonomy for countries with undergraduate versus graduate level training, smaller

and larger ratios of school psychologists to students, and on comparisons of higher and lower perceived status. Each of these results will be further discussed in the sections below with respect to previous research and implications.

Ratio of School Psychologists to Students

As per the abovementioned findings, GDP, percent spending on education, and public support for education did not significantly predict ratio of school psychologists to students. Before providing a more in-depth analysis of the effect of each variable on ratio of school psychologists to students, emphasis should also be placed on the effect size when interpreting these results due to the small sample size. The results regarding the magnitude of the relationship between ratio of school psychologists to students and GDP, public spending, and public support for education reveal a small effect size (i.e., a Cox & Snell pseudo-R^2 value of .09; Cohen, 1988; small effect: r = 0.10; medium effect: *r* = .30; large effect: *r* = .50).

Gross Domestic Product

Although past research has shown that significant differences exist between lower and higher GDP countries, with higher GDP countries having lower school psychologist to student ratios (Oakland & Cunningham, 1992), these results were not found in the current study. Given the divergent findings, it is prudent to further explore the methods and analyses used in the current and previous study. Regarding the methods, the Oakland & Cunningham study was conducted more than twenty years ago with changes occurring since that time

with respect to the number of practicing school psychologists (see for instance Jimerson, Oakland, & Farrell, 2007b and Saigh & Oakland, 1989). Regarding the analyses, non-parametric chi-square tests were conducted by Oakland and Cunningham to examine median differences between ratios of school psychologists to students in lower and higher GDP countries, whereas the current study utilized logistic regression analyses. Oakland and Cunningham indicated that they utilized median instead of mean values to enable them to determine qualities within countries instead of aggregating data and determining averages for all countries (p. 107). Although both studies had similar goals of investigating GDP differences with respect to ratios of school psychologists, the different methods and analytical strategies may have yielded discrepant results. With respect to the results of the current study, both the lowest and highest ratios of school psychologists to students exist in lower GDP countries (Grenada and Pakistan; See Appendix B). Although it is impossible to make direct conclusions as to why one lower GDP country may have a high ratio and the other a low ratio based on the data examined in this study, previous research (Jimerson et al., 2006) has suggested that countries reporting small ratios may have fewer school psychologists in their country, with ratios solely reflecting the number of students seen by school psychologists and not those without access to school psychological services.

Percent Spending on Education

Although past research in the field of school psychology has emphasized

comparisons between higher and lower GDP countries, the influence of the percent of GDP spent on education had not been examined. Because research has shown that there is less spending on education and higher ratios in countries with lower GDP (Barro, 1991; Oakland & Cunningham, 1992), one may assume that countries with higher ratios of school psychologists to students may invest less money into public education. However, the results of the current study did not find significant differences in public spending on education with respect to higher and lower ratios of school psychologists to students. Grenada, a low-ratio country, invests an average amount on public education (4.9%), whereas Pakistan, the country with the highest ratio, invests a low percentage of their GDP on public education (see Appendix B). The ratio for the country spending the least on public education (Lebanon) is large (1: 730, 214) as there are no school psychologists in the country, and the country spending the most (Denmark) has a low ratio of school psychologists to students (1: 769). On the other hand, Jamaica spends a large amount on public education, yet has a high ratio of school psychologists to students (1: 400,000), and Turkey invests a low percentage into public education yet has a small ratio (1: 835). Consequently, this visual inspection yields inconsistent results when examining differences between higher and lower ratio countries with respect to public spending, which may provide some insight into why significant associations were not found between these variables.

Public Support for Education

Similar to GDP and percent spending in education, public support for education did not significantly predict ratios of school psychologists to students. Past research solely utilizing descriptive statistics has yielded mixed results, with some countries that report a lack of support for education having small ratios (e.g., Russia), and others endorsing this lack of support having larger ratios (e.g., Germany; Jimerson et al., 2006, 2010). Similar to Jimerson and colleagues, visual inspection of the data of the present study suggests inconsistent findings with respect to public support for education (See Appendices C & D). For example, Estonia "often" has problems with public support for education, yet has a small ratio of 1: 800 school psychologists to students. On the other hand, consistent with the original hypothesis in this study, Grenada is a country with a low ratio that "never" has any problems with public support for education.

Level of Degree Offered

Along the same lines as ratio of school psychologists to students and contrary to the hypothesis, GDP, percent spending on education, and public support for education did not significantly predict level of degree offered. With respect to effect size (Cox & Snell pseudo-R^2 value of .03), the overall regression equation predicting level of degree offered revealed that the magnitude of the relationship between level of degree offered and GDP, public spending, and public support for education is small (Cohen, 1988).

Gross Domestic Product

The results of the current study are not consistent with those of Oakland & Cunningham (1992), whose findings suggest that higher GDP countries have more graduate than undergraduate level training programs. Key differences also exist across the two studies with respect to level of training offered. First, Oakland and Cunningham only included countries with available training in their analysis, whereas the current study also included countries without training, grouping them with those offering undergraduate level training. Furthermore, at the time that their data was collected, there were reportedly few school psychology doctoral programs offered. These researchers noted that those countries examined in their study typically had more than one master-level program but no doctoral level training (p. 109). In the current study, 28% of the countries specified having "no" training in school psychology and 30% reported having doctoral level training. Consequently, these two groups contribute valuable information not only to the analyses, but also about the availability of school psychology training throughout the world. More specifically, a visual examination of lower and higher GDP countries included in this study indicated that both higher and lower GDP countries offer graduate level training, with some higher GDP countries providing no training in this field (See Appendices C & D). For example, Romania and Vietnam are examples of lower GDP countries that offer doctoral (Romania) and master's (Vietnam) training in school psychology, whereas higher GDP countries such as Finland and Austria do not provide

training. At the same time, other higher GDP countries (e.g., Canada, United States, and Hong Kong) offer doctoral level training, and lower GDP countries such as India do not have training. This visual examination contributes valuable information as to why GDP may not have been a significant predictor of level of degree offered in the current study, as there does not appear to be a consistent difference between countries with respect to level of training.

Differences exist in data analysis conducted between the two studies. For this specific variable, Oakland and Cunningham provided descriptive statistics on the number of programs offered in each degree level in both lower and higher GDP countries and do not make comparisons based on quantitative results. The fact that the current study did not provide these statistics and only examined whether countries had undergraduate or graduate level training could be seen as a limitation; however, grouping countries based on level of degree offered and conducting the regression analyses enabled direct comparisons of training offered across lower and higher GDP countries. Although these results are more consistent with the research conducted by Jimerson and colleagues (e.g., Jimerson et al., 2004; 2006), we cannot draw direct conclusions based on these similarities since quantitative analyses were not conducted in their research.

Percent Spending on Education

Similar to the results for ratios of school psychologists to students, percent spending in education did not significantly predict level of degree offered across countries. Visual inspection of the data suggests that some countries with no

doctoral level training such as Turkey invest a low percentage of their GDP (2.9%) into education, whereas others such as Jamaica and Belize invest higher percentages (See Appendix B). Furthermore, the country with the lowest (Lebanon) and highest (Denmark) percent investment in public education offers Master's level training. As highlighted above, despite the amount of available resources allocated into education, countries may see the advantage and need for graduate level training in school psychology. However, the current study categorized countries into having "none or bachelor" or "masters/specialist or doctoral" level training and did not examine the number of training programs available at each level. The percent spent on education may affect the number of advanced training programs offered within a country.

Public Support for Education

Previous research that examined potential relationships among levels of training offered and public support for education has yielded mixed results, with some showing that lower degree levels may be available in countries that report less public support for education (e.g., Russia), whereas others with higher level of training provided endorse a lack of support for education (Germany; Jimerson et al., 2006). Results of the current study suggest that greater levels of public support for education do not predict whether a country will have undergraduate or graduate training. The country included in Table 2 as an example of having low ratings of public support for education (Brazil) offers doctoral level training, whereas the country endorsing high ratings (Jamaica) does not provide training in

school psychology. Furthermore, other countries providing graduate level training in school psychology such as Malta and Estonia also endorse a lack of support for public education (See Appendix C). Consequently, based on the results of the present study, it appears that lack of support for public education exists in countries regardless of level of degree provided.

Status of School Psychologists

The below findings also differed from the hypothesis; GDP, percent spending on education, and public support for education do not predict the status of school psychologists. With respect to effect size for the overall regression equation predicting status of school psychologists, the Cox & Snell pseudo-R^2 value of .07 suggests that the magnitude of the relationship between level of degree offered and GDP, public spending, and public support for education is small (Cohen, 1988), which is consistent with the non-significant regression results.

Gross Domestic Product

There are not associations between the status of school psychologists and GDP. Once again, this is unlike previous research (Oakland & Cunningham, 1992), whose findings indicate that lower GDP countries perceive low status of school psychologists as being a greater threat than higher GDP countries. As previously noted, it is important to acknowledge the different analyses conducted in both studies, with Oakland and Cunningham utilizing median values to examine country-specific qualities, and this study evaluating overall significant

GDP differences based on lower and higher levels of perceived status of school psychologists. Visual inspection of the current results (See Appendices C & D) suggests that Brazil, a country "often" reporting problems regarding the status of their school psychologists, also has a below average level of GDP ($11,600) when compared to the GDP of other countries. On the other hand, reports from Ireland, a country with a higher than average GDP ($39,500), suggest that there are "never" any concerns with the status of their school psychologists. However, other countries with higher GDP such as Belgium, Canada, and the United States also report that concerns regarding the status of school psychologists "sometimes" exist. The results of the present study suggest that other factors outside of GDP may be influencing the degree to which status of school psychologists is seen as a problem in a particular country. Possible influencing factors with respect to GDP, percent spending on education, and public support for education are further discussed in the future directions section of this study.

Percent Spending on Education

Although previous research described above suggests that the status of school psychologists is greater in higher GDP countries (Oakland & Cunningham, 1992), the effect of percent spending on education on the status of school psychologists has not yet been examined in the literature. These results suggest that public spending on education does not predict the status of school psychologists. For example, visual inspection of the data suggests that Lebanon, a country that invests minimal funding into education, "never" has problems with

the status of its school psychologists, and Denmark, the country investing the most into education, "sometimes" has problems (See Appendices C & D). Visual inspection also suggests that issues appear to arise with the status of school psychologists in countries investing both a lower and higher amount into education, which is consistent with the results of the regression analysis. Although one should not make sound conclusions based on these preliminary findings and future research should examine the effect of public spending on education on status and other school psychological variables, they still provide valuable information, suggesting that how school psychologists are perceived may not be directly influenced by available funding for educational services.

However, some other variables, such as percent spending on school psychological or special education services, may have a more direct effect on the status of school psychologists, with public spending on education indirectly affecting their status. Furthermore, the present study solely examined differences between those countries "never" having a problem compared to those "sometimes" and "always" having a problem. Although this was logical grouping for the purposes of the present study, it may also be interesting to examine differences between all three groups.

Public Support for Education

When surveying school psychologists in different countries, Oakland and Saigh (1989) found that many professionals perceived themselves as having low prestige, with restrictions being placed on their services by the public and

educators. Furthermore, Oakland and Cunningham (1992) discovered that respondents from various countries endorsed status of school psychologists and support for education as being a problem. However, this previous research did not directly examine the effect of public support for education on the status of school psychologists. The results of this study suggest that these two variables are not associated. As noted above, some outside variable may have a more direct influence on the status of school psychologists. For example, in countries where school psychology is not well developed and professionals with degrees in other areas of psychology perform the duties of school psychologists, their status may be more related to the presence and support for psychology within the country instead of public education. Although the status of school psychology was linked to the status of psychology in one of the questions asked in the survey and included in the status of school psychologists composite, it would be noteworthy to separate this information into two separate variables to determine a possible effect of support for psychology on the status of school psychologists.

Child Autonomy

Unlike the original hypotheses, significant mean differences were not found between countries with lower and higher ratios of school psychologists, undergraduate and graduate training, and lower and higher status of school psychologists with respect to child autonomy. Although previous school psychology research has not directly examined child autonomy, findings have suggested that countries with low professional autonomy have low status of

school psychologists (Cunningham, 2007) and that self-expression values, which research has shown to be similar to autonomy (Welzel & Inglehart, 2009), are significantly associated with the presence of school psychology (Cook et al., 2010). Therefore, the present study attempted to expand upon past research by examining whether differences also exist with child autonomy, yet these findings suggest that this may not be the case.

Similar to the regression analyses, calculating the effect size for each of the variables utilized in the *t*-test analyses provides useful information on the magnitude of relationship with child autonomy. Because means and standard deviations were used to calculate these effect sizes, Cohen's 1988 interpretation that d=0.2 (small effect), d=0.5 (medium effect), and d= 0.8 (large effect) was used for these analyses. Both ratio of school psychologists to students and level of degree offered yielded a small effect (.3). Because the means and standard deviations were equivalent for status of school psychologists, an effect size was not yielded for this variable (effect size = 0). Consequently, these small effect sizes are consistent with the *t*-test analyses, suggesting that only a small relationship exists between child autonomy and the abovementioned variables.

One explanation for these results may be that child autonomy is viewed differently across countries and may not always be seen as a positive attribute in countries where the presence of school psychology is strong. This is consistent with Lundy's (2007) statement that some countries are skeptical about children having rights related to autonomy, fearing that such rights may undermine

authority and lead to less structure at school. This may also be an explanation for the similar mean values (Table 6) found across both groups for ratio of school psychologists to students, level of degree offered, and status of school psychologists, which were all similar to the overall mean for child autonomy (Table 2). It is possible that child autonomy may not distinguish between high and low groups on these variables and that countries with varying levels of child autonomy existed in both groups. Furthermore, although child autonomy represented one aspect of child advocacy in the present study, it would be informative to collect data specifically examining child advocacy to determine if it affects the presence, preparation, and practice of school psychology.

Limitations and Future Directions

Despite the fact that the current study has contributed to past research examining the field of international school psychology, it is not without its limitations. These limitations provide valuable insight into the challenges of conducting research at an international level and may guide future research in this area. Most importantly, the small sample size and consequently low power should be taken into account when interpreting the results of this study. Although attempts were made to obtain data from affiliates in 62 countries, 47 professionals responded to the survey, with the complete data of 43 countries being used for the analyses. However, because school psychology is only present in 83 countries, over 50 percent of the countries were recruited. Furthermore, the sample size of previous research examining international psychology (N = 54; Oakland &

Cunningham, 1992) was only slightly larger than that of the current study. However, because of the small sample size, there were limits on the types of analyses that could be conducted, which may have in turn influenced the non-significant findings of this study. Although research to date examining international school psychology has only included countries where school psychology is present in their sample, future research should also examine key differences (e.g., GDP, percent spending in education, child autonomy) with the 109 countries where the specialty does not exist. This would yield a larger sample size and enable for more complex statistical analyses from which additional conclusions can be drawn for research and practice.

A third limitation is the main method of data collection utilized in the present study. More specifically, information on the field of school psychology was obtained through survey format with responses being based on the professionals' perceptions. However, all previous research examining school psychology at an international level also used surveys to obtain this information. Furthermore, it was a professional with requisite knowledge in school psychology, in conjunction with other country school psychologists, who completed the survey, therefore increasing the probability that the responses accurately reflected school psychology within their country. Finally, information retrieved from this survey was also triangulated from multiple sources (e.g., email follow-ups with the respondents, data obtained in recent published works, and direct computations based on available data) to ensure its validity. Data

triangulation was particularly imperative for ratios of school psychologists to students, as some of the original estimates of ratios of school psychologists to students were drastically lower than the ratios computed based on the number of school-age children and school psychologists in the country. One reason for this difference may be that there is often a fine line between who is and is not considered a school psychologist in some countries, with some professionals with degrees in other areas of psychology and education engaging in educational interventions and other school psychological duties. To ensure accuracy of responses and account for within-country variations across locations (e.g., rural versus urban areas), future research may also wish to disseminate questionnaires to various professionals in each country and aggregate data based on these multiple perceptions.

Another limitation of the current study is that due to the use of logistic regression analyses, the dependent variables were dichotomized since continuous data cannot be predicted through this method. Although this grouping method was necessary for the purpose of these analyses, categorizing them into two "low" and "high" groups lost key information. Furthermore, along with sample size, the combination of categorical and discrete dichotomized variables also yields less power. For example, Oakland and Cunningham (1992) examined the number of programs in each country available at different degree levels, whereas we dichotomized them into two groups having undergraduate and graduate level training. As previously stated, available doctoral level training in multiple

countries (28%) has increased within the past two decades since Oakland and Cunningham conducted their research, with the percent availability of doctoral training being similar to the availability of master level training (30%) and no training in school psychology (28%). Consequently, it would be interesting for future research to examine differences across all levels of training, to differentiate between countries providing no and bachelor only training, and those providing master/specialist and doctoral level training. Furthermore, despite having grouped countries based on ratios below and above 1:2,000, it is possible that significant differences in GDP, percent of spending on education, and status of school psychologists exist in countries with very small and large ratios. If possible due to assumption and sample size restrictions, future research should conduct other inferential analyses such as linear regressions using continuous variables to determine whether significant ratio differences exist on the previously mentioned variables, or chi-square analyses as utilized by Oakland and Cunningham (1992). The latter analyses would enable more direct comparisons to determine whether differences in findings between their research and the current study are due to changes in the field of school psychology since the 1980's or the type of analyses conducted.

A final limitation to the current study is the sole use of external and not internal variables to school psychology when examining key predictors of its presence, preparation, and practice. As previously mentioned, factors that are more internal to school psychology (e.g., percent spending on school psychology

or special education services, public support for school psychological services) may have a more direct influence. However, because the field of school psychology is relatively new in some countries and many people are not aware of the roles and responsibilities of school psychologists even in countries where it is well developed, it may be more difficult to obtain this information. Therefore, future research utilizing inferential statistics should examine other available data internal to the field, such as whether a country has established school psychological organizations (Cook, Jimerson, & Begeny, 2010), the variety of coursework offered in degree programs, and requirements for professional development.

Along these same lines, future research should examine some of the more intricate details of what contributes to the profession of school psychology. For example, the results of this study suggest that perceptions of ratios often varied due to differences in definitions of school psychologists across countries. Specific comparisons across countries in definitions of school psychologists, as well as the type of students who are eligible to receive school psychological services should therefore be examined. It would also be informative to more specifically examine the effect that various school psychological services have on the well-being of students, to determine whether positive outcomes are actually due to these services, or if they are instead due to other variables such as a country's view of child advocacy.

Despite the non-significant results of the present study, the fact that

external factors such as GDP, percent spending on education, and public support for education may not have a direct effect on ratio of school psychologists to students, level of degree offered, and status of school psychologists is positive for the field of school psychology. These results suggest that there may be other internal variables within direct control that may be influencing differences across countries. However, future research utilizing the abovementioned and other internal variables to obtain more information on what can be done to further develop the field of school psychology at an international level is needed.

Implications for Practice

The results of the current study provide valuable information regarding implications for practice. More specifically, the non-significant findings suggest that internal variables related to the presence, preparation, and practice of school psychology may not be directly influenced by external variables that cannot be controlled by the field of school psychology. However, given the limitations of this study (i.e., small sample and low power), additional quantitative research in this area is warranted. This is encouraging evidence, as factors such as GDP and percent spending on education cannot be easily modified and are typically consistent for long periods of time. Greater focus should therefore instead be spent on further developing key aspects such as credentialing requirements and other regulations, professional associations, and university training programs in countries where school psychology is present, and promoting the effectiveness and utility of its services in countries where the specialty does not yet exist.

Although such actions may seem monumental, there are various steps that professionals can take to further promote the development of school psychology around the world. Because effective widespread change often requires the involvement of numerous professionals, multiple levels of action can be taken. For example, it may be beneficial and necessary for country professionals in school psychology to collaborate with government officials such as political leaders, the ministry of education, and other relevant administrators when promoting and expanding the field of school psychology within their or another country. Similar to other international research, it is vital that international experts from different countries be sensitive to cultural viewpoints and acknowledge that one model of school psychology may not be appropriate for all contexts. Although experts in countries with more established school psychological services might be more knowledgeable about the field itself, professionals within countries are experts on what practices and training models may be the most appropriate within the context of their country.

Furthermore, countries with limited presence of school psychology may benefit from using models of ethical standards, credentialing requirements, and national organizations already developed in more advanced countries. Although future research is needed to examine their direct effect on the presence, preparation, and practice of school psychology, past research has shown that only 29 of the 83 countries had licensing or credential requirements, and 39 had established professional organizations (Jimerson, Skokut, et al., 2008). Data from

this study also showed that 63% of countries surveyed have ratios of school psychologists to students that are greater than 1:2,000 with some countries having no or few school psychologists, indicating the need to further develop school psychological training programs around the world and increase the number of practicing school psychologists.

Finally, despite the fact that the current study only focused on public support for and percent spending on education, there are other more manageable areas that can be targeted at the education level. For example, fostering the understanding of individual differences and development of special education services may be useful in countries that view school psychological services as being provided to a small population of students with more severe difficulties. This may be done through direct services such as individual workshops and trainings, or at a more indirect level, by working with officials within the ministry of education and offering them examples of effective models of special education already existing in other countries having similar values and education system.

Summary and Conclusions

The findings of this research study contribute to the advancement of school psychology at an international level as they provide information that will inform one's understanding of current efforts to offer services to schools and students with various needs. Results suggest that factors external to school psychology such as GDP, percent spending on education, and public support for education do not predict the ratio of school psychologist to students, level of

degree offered, and status of school psychologists within a country. Furthermore, significant mean differences were not found on higher and lower levels of ratio of school psychologists to students, level of degree offered, and status of school psychology with respect to child autonomy.

These results are unlike those of past research showing significant differences between lower and higher GDP countries with respect to ratio of school psychologists to students, level of degree offered, and status of school psychologists (Oakland & Cunningham, 1992), as well as those indicating significant relations among autonomy and the presence of school psychology (Cook et al., 2010). On the other hand, they are similar to other research yielding mixed findings in these areas (e.g., Jimerson et al., 2007). The current study expanded upon past research, by examining the effect of child autonomy and percent spending on education, and utilizing inferential analyses with data collected within the past five years. However, future research is still needed to provide a more in-depth analysis of the direct influence of variables internal to school psychology and compare countries where school psychology is present to those where the specialty does not exist. Along with the findings from this study, additional research is warranted to further inform one's knowledge about university training, practice, and challenges of school psychology, to generate information on how training may inform practice at an international level and how it may vary according to individual country conditions.

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APPENDIX A

School Psychology International Survey

2007
By Shane R. Jimerson and Thomas D. Oakland

I. Preliminary Information

The following questions provide information about you.

1. Your name:

2. Your E-mail address:

3. Your Mailing address:

4. Indicate your most advanced degree (and indicate your major):
- ❍ Bachelor's degree: 3 years
- ❍ Bachelor's degree: 4 years
- ❍ Bachelor's degree +1 year of specialization
- ❍ Master's degree
- ❍ Specialist's degree (= Master's degree + 1 or 2 years)
- ❍ Doctoral degree

4a. Please indicate your major:

5. Describe your current professional positions (indicate number of years in each position):

6. For how many years have you been associated with professional school psychology?
(please round to the nearest year) _____

7. Some items require you to indicate monetary amounts, please consistently use either DOLLARS, EUROS, or POUNDS, please indicate which you will use:
- ❍ Dollars $
- ❍ Euros €
- ❍ Pounds £

II. School Psychological Services

The questions in this section are designed to describe and identify

the activities that generally characterize school psychologists and school psychological services in your country.

Demographic characteristics of school psychologists

8. What is their average age, in general?
- ❍ 25-34
- ❍ 35-44
- ❍ 45-55
- ❍ 55+

9. What is the percent who are females?

_____% female

10. What is the average number of years they generally serve as school psychologists before seeking other work or retiring?
- ❍ 0-4
- ❍ 5-9
- ❍ 10-14
- ❍ 15-19
- ❍ 20-24
- ❍ 25-29
- ❍ 30-34
- ❍ 35-39
- ❍ 40+

11. What is the number of school psychologists employed in your country?

_____

12. What is their average yearly gross income—the amount of money one earns before deducting for taxes, retirement, and others?

_____ *kindly use currency you noted in question 7*

13. What is the average number of weeks they work yearly?
- ❍ 1
- ❍ 2
- ❍ 3
- ❍ 4
- ❍ 5
- ❍ 6

- ❍ 7
- ❍ 8
- ❍ 9
- ❍ 10
- ❍ 11
- ❍ 12
- ❍ 13
- ❍ 14
- ❍ 15
- ❍ 16
- ❍ 17
- ❍ 18
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- ❍ 36
- ❍ 37
- ❍ 38
- ❍ 39
- ❍ 40
- ❍ 41
- ❍ 42
- ❍ 43
- ❍ 44
- ❍ 45
- ❍ 46
- ❍ 47
- ❍ 48
- ❍ 49
- ❍ 50

- ❍ 51
- ❍ 52

14. What is the percent whose highest degree / years of studies is?
bachelor's degree: 3 years of study _____%
bachelor's degree: 4 years of study _____%
bachelor's degree + 1 year for a professional credential _____%
master's degree_____%
specialist's degree_____%
doctoral degree_____%

15. What is the percent who belong to one or more professional associations?
a national association _____%
an international association _____%
The International School Psychology Association _____%

16. In those schools that provide school psychology services, what is the typical ratio between the number of students and one school psychologist?
1 to _____

17. What language(s), other than your national language(s), are most school psychologists proficient in?

- ❍ Amharic
- ❍ American Sign Language
- ❍ Arabic
- ❍ Armenian
- ❍ Assyrian
- ❍ Asturian
- ❍ Azerbaijani
- ❍ Bahasa (Indonesia)
- ❍ Basque
- ❍ Bengali
- ❍ Berber
- ❍ Bikol
- ❍ Bosnian
- ❍ Breton
- ❍ Bulgarian
- ❍ Burmese
- ❍ Cambodian (Khmer)
- ❍ Cantonese (Chinese)
- ❍ Catalan
- ❍ Cherokee (Native

American)
- ❍ Creole
- ❍ Croatian
- ❍ Czech
- ❍ Danish
- ❍ Dutch
- ❍ English
- ❍ Estonian
- ❍ Farsi (Persian)
- ❍ Fijian
- ❍ Finnish
- ❍ French
- ❍ Frisian
- ❍ Gaelic (Irish)
- ❍ Galician
- ❍ Georgian
- ❍ German
- ❍ Greek
- ❍ Gujarati
- ❍ Hawaiian
- ❍ Hebrew
- ❍ Hindi
- ❍ Hmong
- ❍ Hokkien
- ❍ Holooe
- ❍ Hungarian
- ❍ Ibo
- ❍ Icelandic
- ❍ Ido
- ❍ Ilocano, Iloko
- ❍ Indonesian
- ❍ Interlingua
- ❍ Irish
- ❍ Italian
- ❍ Japanese
- ❍ Kannada
- ❍ Khmer (Cambodian)
- ❍ Konkani
- ❍ Korean
- ❍ Lao
- ❍ Latvian
- ❍ Lithuanian
- ❍ Luganda
- ❍ Malayalam

- ❍ Malaysian
- ❍ Mandarin (Chinese)
- ❍ Marathi
- ❍ Marshallese
- ❍ Mien
- ❍ Nahuati
- ❍ Nepali
- ❍ Norwegian
- ❍ Occitan
- ❍ Pangasinan
- ❍ Polish
- ❍ Portugese (Brazil)
- ❍ Portugese (Portugal)
- ❍ Punjabi
- ❍ Quechua (Native American)
- ❍ Romanian
- ❍ Russian
- ❍ Serbain
- ❍ Serbian
- ❍ Sesotho
- ❍ Sindhi
- ❍ Sinhala
- ❍ Sioux (Native American)
- ❍ Slovak
- ❍ Slovenian
- ❍ Somali
- ❍ Spanish (Latin & South America)
- ❍ Spanish (Spain)
- ❍ Swahili
- ❍ Swedish
- ❍ Tagalog
- ❍ Taiwanese
- ❍ Tamil
- ❍ Tatar
- ❍ Telugu
- ❍ Teochew (Chao Chow)
- ❍ Thai
- ❍ Tigrinya
- ❍ Toisan

- ❍ Turkish
- ❍ Twi
- ❍ Ukrainian
- ❍ Urdu
- ❍ Vietnamese
- ❍ Visayan
- ❍ Welsh
- ❍ Xhosa
- ❍ Yiddish
- ❍ Yoruba
- ❍ Zulu
- ❍ Other

18. What are the titles commonly used by school psychologists?

Assistant Psychologist	❍ Yes	❍ No
Associate Psychologist	❍ Yes	❍ No
Counselor	❍ Yes	❍ No
Educational Psychologist	❍ Yes	❍ No
Psychologist	❍ Yes	❍ No
Psychometrist	❍ Yes	❍ No
Psychological Technician	❍ Yes	❍ No
School Psychologist	❍ Yes	❍ No

18a.
Other, not listed above:
_____

19. Are there one or more generally accepted definitions for school psychological services in your country?
- ❍ Yes
- ❍ No

19a. Please provide the definitions and their sources:

20. Are there one or more generally accepted definitions for school psychologists in your country?
- ❍ Yes
- ❍ No

20a. Please provide the definitions and their sources:

School psychologists differ in some of their services. Please indicate the extent to which the following are used by school psychologists in your country.

21. Records Acquisition and Reviews:

use of interviews	❍ rarely	❍ sometimes	❍ often
use of observations	❍ rarely	❍ sometimes	❍ often
review of student	❍ rarely	❍ sometimes	❍ often
educational/psychological records	❍ rarely	❍ sometimes	❍ often
review of medical records	❍ rarely	❍ sometimes	❍ often
other, not listed above	❍ rarely	❍ sometimes	❍ often

21a. If other, please specify:

22. Tests and Other Assessments Used:

Measures of:			
adaptive behavior	❍ rarely	❍ sometimes	❍ often
behavioral assessment	❍ rarely	❍ sometimes	❍ often
attention and hyperactivity	❍ rarely	❍ sometimes	❍ often
classroom context (e.g., organization, management)	❍ rarely	❍ sometimes	❍ often
educational achievement using standardized tests	❍ rarely	❍ sometimes	❍ often
educational achievement using student work samples	❍ rarely	❍ sometimes	❍often
intelligence (individually administered)	❍ rarely	❍ sometimes	❍ often
intelligence (group administered)	❍ rarely	❍ sometimes	❍ often
language	❍ rarely	❍ sometimes	❍ often
motor	❍ rarely	❍ sometimes	❍ often
neuropsychological qualities (e.g., executive processing)	❍ rarely	❍ sometimes	❍ often
personality and temperament	❍ rarely	❍ sometimes	❍ often
psychopathology	❍ rarely	❍ sometimes	❍ often
self-concept	❍ rarely	❍ sometimes	❍ often
social	❍ rarely	❍ sometimes	❍ often
values	❍ rarely	❍ sometimes	❍ often
visual and/or auditory perception	❍ rarely	❍ sometimes	❍ often
vocational aptitudes	❍ rarely	❍ sometimes	❍ often
vocational interests	❍ rarely	❍ sometimes	❍ often
psychophysiological qualities (e.g.,	❍ rarely	❍ sometimes	❍ often

heart rate, skin moisture)
other, not listed above ❍ rarely ❍ sometimes ❍ often

22a. If other, please specify:

23. Intervention Methods:

anxiety (including test anxiety) reduction ❍ rarely ❍ sometimes ❍often
classroom management ❍ rarely ❍ sometimes ❍ often
community-based services ❍ rarely ❍ sometimes ❍ often
consultation with administrators ❍ rarely ❍ sometimes ❍ often
consultation with teachers ❍ rarely ❍ sometimes ❍ often
conflict management ❍ rarely ❍ sometimes ❍often
crisis intervention ❍ rarely ❍ sometimes ❍ often
develop basic academic skill ❍ rarely ❍ sometimes ❍ often
educational remediation ❍ rarely ❍ sometimes ❍ often
group counseling ❍ rarely ❍ sometimes ❍ often
individual counseling ❍ rarely ❍ sometimes ❍ often
in-service education ❍ rarely ❍ sometimes ❍ often
leadership training ❍ rarely ❍ sometimes ❍ often
marital and family counseling ❍ rarely ❍ sometimes ❍ often
organizational change ❍ rarely ❍ sometimes ❍ often
parent education ❍ rarely ❍ sometimes ❍ often
personal-social development ❍ rarely ❍ sometimes ❍often
school-community improvement ❍ rarely ❍ sometimes ❍ often
supervision ❍ rarely ❍ sometimes

	❍ often
systems and organizational development	❍ rarely ❍ sometimes ❍ often
vocational development	❍ rarely ❍ sometimes ❍ often
other, not listed above	❍ rarely ❍ sometimes ❍ often

23a. If other, please specify:

24. Theoretical base for practice:

behavioral	❍ rarely ❍ sometimes ❍ often
client-centered	❍ rarely ❍ sometimes ❍ often
cognitive/behavioral	❍ rarely ❍ sometimes ❍ often
humanistic	❍ rarely ❍ sometimes ❍ often
psychoanalytic	❍ rarely ❍ sometimes ❍ often
no strong theoretical orientation	❍ rarely ❍ sometimes ❍ often
other, not listed above	❍ rarely ❍ sometimes ❍ often

24a. If other, please specify:

25. To what extent does the work of school psychologists involve students with the following disorders? Their work may be directly with the students with these disorders or with their teachers and/or parents:

attention/hyperactivity disorder	❍ rarely	❍ sometimes	❍ often
autism spectrum disorder	❍ rarely	❍ sometimes	❍ often
behaviorally impaired	❍ rarely	❍ sometimes	❍ often
emotionally impaired	❍ rarely	❍ sometimes	❍ often
gifted	❍ rarely	❍ sometimes	❍ often
hearing impaired	❍ rarely	❍ sometimes	❍ often
language impaired	❍ rarely	❍ sometimes	❍ often
learning disabled	❍ rarely	❍ sometimes	❍ often

mentally retarded	❍ rarely	❍ sometimes	❍ often
health disorders	❍ rarely	❍ sometimes	❍ often
physically impaired	❍ rarely	❍ sometimes	❍ often
recent immigrants	❍ rarely	❍ sometimes	❍ often
slow learners	❍ rarely	❍ sometimes	❍ often
socially impaired	❍ rarely	❍ sometimes	❍ often
visually impaired	❍ rarely	❍ sometimes	❍ often

26. Please indicate the extent to which the following areas constitute problems for school psychologists in your country (❍rarely ❍sometimes ❍often):

few opportunities to confer with colleagues in school psychology
few opportunities for professional advancement
few opportunities to influence decisions regarding students
low acceptance as a professional
low acceptance as a profession
low pay (compared to educators)
low pay (compared to physicians and lawyers)
low pay (compared to country's average salary)
made to assume responsibilities unrelated to their training
made to assume responsibilities unrelated to school psychology
supervised by persons who have little expertise in school psychology
need to make compromises between the needs of the organization and professional standards
have insufficient time to conduct assigned responsibilities
have low self-expectations and aspirations
unimportant job-related distractions
difficulty managing family and professional responsibilities
school psychologists are seen as having low status by educators
school psychologists are seen as having low status by psychologists
school psychologists are seen as having low status by the public
school psychologists have low status because, within the country the status of psychology is low
school psychologists have low status because, within the country, the status of education is low
conflicts with competing professional groups
other professional groups taking our jobs
lack of money to properly fund services
lack of political stability in the country

lack of economic stability in the country
lack of stability in the educational system
too many educational reforms
lack of public support for education
lack of leadership within the profession
conflicts of leadership within the profession
professional burnout
lack of research and evaluation
lowering standards for selecting and preparing professionals
lack of professional standards governing professional services
the more able professionals are leaving the profession
lack of supervision
lack of reliable and valid tests
shortage of school psychologists
other

26a. If other, please specify:

27. To what extent do the following sources control school psychological services in your country?

	Extent of Influence
local educational codes and policies	❍Little ❍Moderate ❍Significant
local educational decisions of a professional nature	❍Little ❍Moderate ❍Significant
local educational decisions of a political nature	❍Little ❍Moderate ❍Significant
state or regional decisions of a professional nature	❍Little ❍Moderate ❍Significant
state or regional decisions of a political nature	❍Little ❍Moderate ❍Significant
national educational legislation and codes	❍Little ❍Moderate ❍Significant
national educational decisions of a professional nature	❍Little ❍Moderate ❍Significant
national educational decisions of a political nature	❍Little ❍Moderate ❍Significant
national educational decisions of universities	❍Little ❍Moderate ❍Significant
national educational decisions of professional associations	❍Little ❍Moderate ❍Significant
national educational decisions of litigation	❍Little ❍Moderate ❍Significant

other ❍Little ❍Moderate ❍Significant

27a. If other, please specify:

The following questions examine whether the current and future numbers of school psychologists are adequate in your country.

28. Is the current number of school psychologists:
- ❍ too few
- ❍ adequate
- ❍ too many

29. In the next 10 years, will the number of school psychologists likely be:
- ❍ too few
- ❍ adequate
- ❍ too many

30. Approximately how many school psychologists presently graduate each year?

_____

31. Approximately how many school psychologists should graduate each year?

_____

32. How often do students prepared outside of school psychology (e.g., as generalists in psychology, or clinical psychologists) later work as school psychologists?
- ❍ often
- ❍ sometimes
- ❍ rarely

33. Please estimate the yearly salary (including fringe benefits such as insurance, retirement, etc.) of practicing school psychologists:

number of years as a school psychologist	annual salary
0-4	_____ kindly use currency you noted in question 7
5-10	_____ kindly use currency you noted in

	question 7
11-15	_____ kindly use currency you noted in question 7
16-20	_____ kindly use currency you noted in question 7
21 or more	_____ kindly use currency you noted in question 7

34. Average number of students (not the number of sessions) a school psychologist sees in a month:

for individual counseling for 30 or more minutes _____
in group counseling _____
for whom a school psychologist completes an evaluation _____

35. Average number of consultations a school psychologist provides each month:

with Teachers _____
with Principals and other administrators _____
with Parents _____
with others _____

35a. If others, please specify:

36. Average number of formal programs or other presentations a school psychologist provides for parents, teachers, and/or other personnel per month (e.g., special topics or professional development presentations):

_____

37. Average number of times each month a school psychologist works on programs designed to promote primary prevention (e.g., working with the whole class to prevent future problems):

_____

38. Average number of hours each month, if any, a school psychologist receives supervision:

(please round to the nearest hour): _____

39. Average percent of a school psychologist's work time:

	% of time spent
conducting psychoeducational evaluations (including testing and report writing)	_____%

counseling students	_____%
consulting with teachers/staff	_____%
consulting with parents/families	_____%
conducting staff training and in-service/education programs	_____%
involved in research and professional writing	_____%
performing in administrative responsibilities	_____%
providing primary prevention programs	_____%
working directly with students individually or in groups to promote achievement	_____%
in other activities	_____%
other	_____%
Total Percentage	100%

39a. Please specify your other activities:

III. Professional, Research and Legal Issues

The following questions are intended to provide information about the status of school psychology in your country.

40. Indicate the name(s) of the professional association(s) devoted exclusively to advancing and promoting school psychology and the number of its (or their) members:

	Name of professional association/# of Members
First	_____
Second	_____
Third	_____

41. Indicate the name(s) of the school psychology association(s) that sponsor one or more professional journals (and include the name of the journal the association sponsors) that appear at least quarterly and provide for peer reviews:

42. Indicate the name(s) of the other national professional association(s) that serve the interests of school psychologists and the number of their members:

	Name of professional association/# of Members
First	_____
Second	_____
Third	_____

43. Indicate the name of professional associations, other than those designated specifically for school psychology, that sponsor one or more professional journals (and include the name of the journal the association sponsors) that appear at least quarterly, provide for peer reviews, and serve the interests of school psychologists.

44. Does the practice of psychology require a person to be licensed as a psychologist?

- ❍ Yes
- ❍ No

45. Please indicate all required to be licensed:

bachelor's degree in most any field	❍ Yes	❍ No
bachelor's degree in psychology: 3 years	❍ Yes	❍ No
bachelor's degree in psychology: 4 years	❍ Yes	❍ No
bachelor's degree: 5 years	❍ Yes	❍ No
master's degree in psychology	❍ Yes	❍ No
doctoral degree in psychology an internship	❍ Yes	❍ No
passing a national competency exam	❍ Yes	❍ No
membership in a national professional association	❍ Yes	❍ No

45a. Other requirements, not listed above:

46. Does the practice of school psychology require a person to be licensed as a school psychologist?

- ❍ Yes
- ❍ No

46a. Please indicate all required to be licensed:

bachelor's degree in most any field	❍ Yes	❍ No
bachelor's degree in psychology: 3 years	❍ Yes	❍ No
bachelor's degree in psychology: 4 years	❍ Yes	❍ No
bachelor's degree: 5 years	❍ Yes	❍ No
master's degree in psychology	❍ Yes	❍ No
doctoral degree in psychology an internship	❍ Yes	❍ No
passing a national competency exam	❍ Yes	❍ No
membership in a national professional association	❍ Yes	❍ No

46b. Other requirements, not listed above:

47. Are nationally approved professional standards available in the following areas?

university professional preparation	❍ Yes	❍ No
programs for selecting students	❍ Yes	❍ No
university professional preparation	❍ Yes	❍ No
programs that specify course or program	❍ Yes	❍ No
content	❍ Yes	❍ No
school-based assessment services	❍ Yes	❍ No
school-based intervention services	❍ Yes	❍ No
ethical behaviors	❍ Yes	❍ No
requirements for school psychological services		

47a. Other nationally approved professional standards, not listed above:

48. In your judgment, what conditions influenced school psychology most strongly during the past 10 years in your country?

49. In your judgment, what conditions are likely to influence school psychology most strongly during the next 10 years in your country?

50. To what extent are school psychology practices based on sound psychological research from your country?

- ❍ little
- ❍ somewhat
- ❍ a lot

51. Please check the major sources of financial support available for research (check all that apply):

- ❑ personal funds
- ❑ school districts or municipal government
- ❑ national, federal, central, or provincial education authorities
- ❑ other national, federal, central, or provincial authorities
- ❑ universities
- ❑ public research institutions
- ❑ private research institutions
- ❑ international sources (please specify)
- ❑ other (please specify)

52. In your judgment, what are the major research needs of school psychology in your country?

IV. Programs, Professional Preparation: Characteristics of Students, Faculty, and Institutions.

Knowledge of the characteristics of programs, students, faculty, and institutions will assist us in better understanding professional development.

53. How many school psychology professional preparation programs are there at the following levels?

bachelor's: 3 year _____
bachelor's: 4 year _____
bachelor's + 1 year for a professional credential _____
master's _____
specialist's _____
doctoral _____

54. What percentage of these programs exist in:

public universities	_____%
private universities	_____%
separate professional schools	_____%
other:	_____
Total Percentage	100%

54a. If other, please specify:

55. What percent of these universities offer two or more professional psychology preparation programs (e.g., clinical, counseling, industrial/organizational, and other applied specialties)?

_____%

56. How many school psychology professional preparation programs are there likely to be in 10 years at each level?

bachelor's: 3 year _____
bachelor's: 4 year _____
bachelor's + 1 year for a professional credential _____
master's _____
specialist's _____
doctoral _____

57. Are school psychology professional preparation programs reviewed or accredited by:

	Reviewed
professional associations in psychology	❍ Yes ❍No
professional associations in education	❍ Yes ❍No
national, federal, or central government	❍ Yes ❍No
state or provincial government	❍ Yes ❍No
local or municipal government	❍ Yes ❍No

58. How many school psychology programs are accredited?

_____

59. Do you believe the status of school psychology would be improved if ISPA accredited school psychology programs in your country and others?

❍ Yes
❍ No

59a. Why do you believe the status of school psychology would be improved if ISPA accredited school psychology programs in your country and others?

60. What percent of school psychology programs are offered in institutions that are of:

higher prestige _____
average prestige_____
lower prestige _____

61. Please estimate the number of school psychology students enrolled at each level, the percent taking a full load of courses, the number of years on the average students take to complete their programs, and whether the numbers of students are increasing,

remaining steady, or declining:

	Number of students enrolled	% enrolled full-time	Average length of their programs in years
bachelor's: 3 year	_____	_____	_____
bachelor's: 4 year	_____	_____	_____
bachelor's+1 year for professional credential	_____	_____	_____
master's	_____	_____	_____
specialist's	_____	_____	_____
doctoral	_____	_____	_____

Status of the numbers of students

❍ increasing
❍ steady
❍ declining

bachelor's: 3 year	_____
bachelor's: 4 year	_____
bachelor's+1 year for professional credential	_____
master's	_____
specialist's	_____
doctoral	_____

62. Estimate the percent of school psychologists who have an undergraduate major in:

education	_____%
psychology (including school psychology)	_____%
other behavioral sciences	_____%
biological sciences	_____%
physical sciences	_____%
humanities	_____%
fine arts	_____%

63. Compared to students in clinical psychology preparation

programs:

are the intellectual abilities of school psychology students generally	❍somewhat lower ❍about the same ❍ somewhat above
is the academic preparation of school psychology students generally	❍somewhat lower ❍about the same ❍ somewhat above
is the professional commitment of school psychology students generally	❍somewhat lower ❍about the same ❍ somewhat above

64. Please indicate the extent of influence the following have when selecting students for school psychology programs:

	extent of influence
prior experiences as a teacher	❍minor ❍moderate ❍major
prior experiences as a psychologist	❍minor ❍moderate ❍major
prior experiences with children	❍minor ❍moderate ❍major
other prior professional experiences	❍minor ❍moderate ❍major
nature of one's bachelor's degree	❍minor ❍moderate ❍major
secondary school or undergraduate grade point average	❍minor ❍moderate ❍major
academic aptitude test scores	❍minor ❍moderate ❍major
letters of reference from university faculty	❍minor ❍moderate ❍major
letters of reference from practicing professional psychologists	❍minor ❍moderate ❍major
letters of reference from personal friends	❍minor ❍moderate ❍major
individual interviews with faculty	❍minor ❍moderate ❍major
personal financial resources	❍minor ❍moderate ❍major
family background	❍minor ❍moderate

gender	❍minor	❍moderate	❍major
race/ethnicity	❍minor	❍moderate	❍major
religion	❍minor	❍moderate	❍major
social class	❍minor	❍moderate	❍major
the region in which the applicant lives	❍minor	❍moderate	❍major
other	❍minor	❍moderate	❍major

64a. If other, please specify:

65. What percent of school psychology students receive financial assistance and how much assistance do they average yearly?

	% who receive financial assistance from universities or government	amount of assistance received annually	number of years they receive assistance
undergraduate	____%	_____	____
undergraduate + 1 year for credential	____%	_____	____
master's	____%	_____	____
specialist's	____%	_____	____
doctoral	____%		

	% of students work outside the program 1-10 hours	% of students work outside the program 11-20 hours
undergraduate	____%	____%
undergraduate + 1 year for credential	____%	____%
master's	____%	____%

specialist's	____%	____%
doctoral		

% of students work
outside the program
21-30 hours

undergraduate ____%
undergraduate
+ 1 year for
credential ____%
master's ____%
specialist's ____%
doctoral ____%

66. During their professional preparation <u>at the undergraduate level</u>, what percent of the time do students typically devote to the following activities and responsibilities? Do not answer this item if professional preparation occurs somewhat exclusively at the graduate level.

	Percent of Time
taking academic courses (e.g., learning, personality, social, developmental, statistics)	_____%
taking professional courses (e.g., those directly related to their preparation as service providers)	_____%
class-related work with students, teachers, parents, etc.	_____%
other supervised work in the community (e.g., an internship at the end of their preparation program)	_____%
other	
Total percentage	100%

67. During their professional preparation at the graduate level, what percent of the time do students typically devote to the following activities and responsibilities? Do not answer this item if professional preparation occurs somewhat exclusively at the undergraduate level.

	Percent of Time
taking academic courses (e.g., learning, personality, social, developmental, statistics)	_____%
taking professional courses (e.g., those directly related to their preparation as service providers)	_____%
class-related work with students, teachers, parents, etc.	_____%
other supervised work in the community (e.g., an internship at the end of their preparation program)	_____%
other	
Total percentage	100%

Professional preparation of school psychologists may be understood by knowing the papers or courses students typically are required to take as well as the topics that may be emphasized throughout coursework. Questions ask first about required classes and then about broader topics.

68. Please identify the papers or courses students typically take during their school psychology program or required to take before beginning the program (check all that apply):

- ❖ **Discipline Based**
- ❑ biological psychology
- ❑ developmental psychology
- ❑ experimental psychology
- ❑ learning or cognition
- ❑ motivation
- ❑ social psychology
- ❖ **Assessment**
- ❑ academic achievement assessment

- ❑ behavior assessment
- ❑ intellectual assessment
- ❑ mental health assessment
- ❑ neuropsychological assessment
- ❑ personality assessment
- ❑ social assessment
- ❑ vocational assessment
- ❑ introduction to measurement
- ❑ advanced psychometric theory

❖ **Research and Evaluation**

- ❑ basic statistics
- ❑ advanced statistics (e.g. through simple regression & MANOVA)
- ❑ factor analysis
- ❑ structural equation modeling
- ❑ program evaluation
- ❑ qualitative analysis
- ❑ research methodology and design
- ❑ research practicum

❖ **Interventions**

- ❑ academic interventions
- ❑ behavior interventions
- ❑ consultation
- ❑ counseling
- ❑ learning strategies/styles interventions
- ❑ psychoeducational interventions
- ❑ primary prevention strategies
- ❑ social-emotional interventions

❖ **Professional Foundations**

- ❑ history of psychology or school psychology
- ❑ legal issues
- ❑ ethical issues
- ❑ professional issues

❖ **Other courses not listed above:**

- ❑ course 1: _____
- ❑ course 2: _____
- ❑ course 3: _____

Issues Commonly Emphasized in Two or More of the Courses or Papers within School Psychology Programs

Some issues are sufficiently broad and important to be emphasized in various courses throughout the program. Indicate the frequency the following topics are likely to be emphasized throughout their

professional preparation program.

69. General Issues:

achievement/academic development	❍rarely ❍often	❍sometimes
attitude and value formation	❍rarely ❍often	❍sometimes
consultation techniques	❍rarely ❍often	❍sometimes
counseling and guidance techniques	❍rarely ❍often	❍sometimes
data collection techniques	❍rarely ❍often	❍sometimes
effects of coaching and practice on test performance	❍rarely ❍often	❍sometimes
ethical issues	❍rarely ❍often	❍sometimes
group dynamics	❍rarely ❍often	❍sometimes
human growth and development	❍rarely ❍often	❍sometimes
information about job requirements	❍rarely ❍often	❍sometimes
intelligence/intellectual development	❍rarely ❍often	❍sometimes
language development	❍rarely ❍often	❍sometimes
legal issues	❍rarely ❍often	❍sometimes
motivation	❍rarely ❍often	❍sometimes
organizational morale	❍rarely ❍often	❍sometimes
organizational structure	❍rarely ❍often	❍sometimes
personality	❍rarely ❍often	❍sometimes
perception	❍rarely ❍often	❍sometimes
performance evaluation	❍rarely ❍often	❍sometimes
physiology and anatomy learning	❍rarely	❍sometimes

	❍often		
psychopathology	❍rarely	❍sometimes	
	❍often		
vocational	❍rarely	❍sometimes	
	❍often		
other	❍rarely	❍sometimes	
	❍often		

69a. If other, please specify:

70. Issues More Specific to Tests and Statistics:

basic statistical concepts (e.g., means, standard deviations)	❍rarely	❍sometimes	❍often
advanced statistical concepts (e.g., regression & multi-factorial)	❍rarely	❍sometimes	❍often
factors affecting quality of criterion measures	❍rarely	❍sometimes	❍often
factors that influence test performance	❍rarely	❍sometimes	❍often
item analysis procedures	❍rarely	❍sometimes	❍often
principles and standards of test construction	❍rarely	❍sometimes	❍often
research and experimental design	❍rarely	❍sometimes	❍often
reliability concepts	❍rarely	❍sometimes	❍often
standardized procedures for administering tests	❍rarely	❍sometimes	❍often
strengths and limitations of assessment procedures	❍rarely	❍sometimes	❍often
types of test scores and norms	❍rarely	❍sometimes	❍often
test fairness concepts	❍rarely	❍sometimes	❍often
test utility concepts	❍rarely	❍sometimes	❍often
validity concepts	❍rarely	❍sometimes	❍often
other	❍rarely	❍sometimes	❍often

70a. If other, please specify:

71. Professional preparation often combines courses that emphasize either theory or practice. During their preparation, to what extent do programs emphasize

Theory _____%
Practical preparation _____%

72. Upon completing their degrees, to what extent do school psychologists continue their professional development yearly by:

taking additional university courses	❍none ❍few ❍some ❍many ❍most
conducting and publishing research	❍none ❍few ❍some ❍many ❍most
reading professional journals and books	❍none ❍few ❍some ❍many ❍most
attending brief (e.g., 1/2 to 1 day) workshops	❍none ❍few ❍some ❍many ❍most
attending longer (> 1 day) workshops	❍none ❍few ❍some ❍many ❍most
traveling to other institutions to observe their practices	❍none ❍few ❍some ❍many ❍most
attending local/regional conventions	❍none ❍few ❍some ❍many ❍most
attending national conventions	❍none ❍few ❍some ❍many ❍most
attending international conventions	❍none ❍few ❍some ❍many ❍most
other, not listed above	❍none ❍few ❍some ❍many ❍most

72. If other, please specify:

Answers to the following questions enable us to better understand the faculty characteristics.

73. In your judgment, what percent of the program faculty are likely to:

have a master's degree	_____%
have a doctoral degree	_____%
be employed full-time within the school psychology programs	_____%
publish either books or articles in respected referred journals yearly	_____%
be actively engaged in research	_____%
be considered one of the leading scholars in psychology in your country	_____%
be considered one of the leading scholars in psychology internationally	_____%
consult with school systems two or more days each month	_____%
consult with the local, regional, or national education agency two or more days each month	_____%
hold an elected position in a national professional association	_____%
have a private practice (e.g., counseling, therapy, assessment)	_____%

74. What is the number of university faculty who work full time in school psychology programs?

_____

75. In some locations, university faculty may not be assigned full time to a school psychology program and instead may work part time in it and have additional teaching or administrative duties. What is the number of university faculty who work part time in school psychology programs?

---

76. Given a program with three full time faculty in school psychology:

Please estimate the number of full time graduate students a program is likely to accept yearly: _____

77. Please estimate the yearly salary (including fringe benefits such as insurance, retirement, etc.) of professors:

number of years as a university professor	annual salary
0-4	_____ kindly use currency you noted in question 7
5-10	_____ kindly use currency you noted in question 7
11-15	_____ kindly use currency you noted in question 7
16-20	_____ kindly use currency you noted in question 7
> 20	_____ kindly use currency you noted in question 7

78. What percent of the faculty are likely to be appointed to work in the program:

full time _____%
1/2 time _____%
1/4 time _____%

79. If a professor were appointed full-time to the program, how many hours weekly would he or she normally devote to these responsibilities?

(please round to the nearest hour) _____

80. What percent of full time faculty have a regular practice outside of the university for which they receive money personally?

_____

81. We also are interested in knowing the adequacy of funds for programs, staff, and learning resources. In your judgment, indicate the adequacy of the support services generally available for the faculty:

	very adequate	adequate	inadequate	unavailable
secretarial support	❍	❍	❍	❍
teaching assistants (to help grade papers and to supervise practica)	❍	❍	❍	❍
research assistants	❍	❍	❍	❍
telephone services	❍	❍	❍	❍
mail privileges	❍	❍	❍	❍
computers	❍	❍	❍	❍

photocopy services	❍	❍	❍	❍
SPSS and other data analysis	❍	❍	❍	❍
methods	❍	❍	❍	❍
Help analyzing data	❍	❍	❍	❍
Current library resources (e.g., current	❍	❍	❍	❍
journals and books professional				
tests and other materials)				
money for convention travel	❍	❍	❍	❍
money for research support	❍	❍	❍	❍
other, not listed above	❍	❍	❍	❍

81a. If other, please specify:

82. How can the International School Psychology Association (ISPA) best contribute to the specialty of school psychology in your country and internationally?

83. What are the most important issues ISPA should address?

APPENDIX B

Values of Ratio of School Psychologists to Students and Economic Variables

Country	Approximate Ratio	GDP ($)	Percent Spending on Education (% GDP)
Austria	8,000	41,700	5.5
Belgium	1,200	37,600	6.4
Belize	95,826	8,300	5.7
Brazil	4,328	11,600	5.4
Canada	1,335	40,300	4.8
Canary Islands	700	30,600	4.6
Columbia	1,117	10,100	3.9
Croatia	800	18,300	4.3
Cyprus	4,300	29,100	7.4
Czech Republic	4,370	25,900	4.1
Denmark	769	40,200	7.7
England*	2,882	35,900	5.4
Estonia	800	20,200	5.7
Finland	1,500	38,300	6.1
France	2,783	35,000	5.6
Germany	10,000	37,900	4.6
Greece	3,043	27,600	4.0
Grenada	300	13,300	4.9
Hong Kong	10,000	49,300	3.3
Hungary	2,950	19,600	5.1
Iceland	1,000	38,000	7.5
India	281,965	3,700	3.1

*GDP and Percent Spending on Education estimates from the United Kingdom were used.

Values of Ratio of School Psychologists to Students and Economic Variables

Continued

Country	Approximate Ratio	GDP ($)	Percent Spending on Education (% GDP)
Indonesia	26,758	4,700	2.8
Ireland	5,300	39,500	5.7
Jamaica	400,000	9,000	6.2
Lebanon	730,214	15,600	2.0
Lithuania	1,000	18,700	4.9
Malta	5,018	25,700	5.8
Netherlands	1,500	42,300	5.5
New Zealand	3,511	27,900	5.6
Norway	2,201	53,300	6.4
Pakistan	1,215,435	2,800	2.9
Romania	1,135	12,300	4.3
Scotland*	1,378	35,900	5.4
Seychelles	15,372	24,700	5.0
Slovak Republic	3,637	23,400	3.6
South Africa	40,000	11,000	5.1
Switzerland	1,213	43,400	5.4
Turkey	835	14,600	2.9
United States	1,500	48,100	5.5
Venezuela	13,015	12,400	3.7
Vietnam	43,828	3,300	5.3
Zimbabwe	114,312	500	2.5

*GDP and Percent Spending on Education estimates from the United Kingdom were used.

APPENDIX C

Values of Level of Degree Offered, Public Support for Education, and Status of School Psychologists

Country	Level of Degree	Public Support for Education*	Status of School Psychologists*
Austria	None	2.00	2.00
Belgium	Bachelor	1.00	2.00
Belize	None	1.00	--
Brazil	Doctoral	3.00	3.00
Canada	Doctoral	2.00	2.00
Canary Islands	Bachelor	2.00	1.00
Columbia	None	--	1.00
Croatia	Doctoral	2.00	1.00
Cyprus	Doctoral	1.00	1.00
Czech Republic	Master	1.00	1.00
Denmark	Master	2.00	2.00
England	Doctoral	3.00	1.00
Estonia	Master	2.00	3.00
Finland	None	2.00	1.00
France	Bachelor	2.00	2.00
Germany	Master	2.00	2.00
Greece	Doctoral	2.00	1.00
Grenada	Bachelor	1.00	2.00
Hong Kong	Doctoral	1.00	1.00
Hungary	Master	2.00	--
Iceland	None	1.00	2.00
India	None	--	3.00

*Values Rounded; 1=Never; 2=Sometimes; 3=Often (Lack of Support/Low Status)

Values of Level of Degree Offered, Public Support for Education, and Status of School Psychologists

Continued

Country	Level of Degree	Public Support for Education	Status of School Psychologists
Indonesia	None	--	--
Ireland	Master	1.00	1.00
Jamaica	None	1.00	1.00
Lebanon	Master	1.00	1.00
Lithuania	Master	--	2.00
Malta	Master	2.00	1.00
Netherlands	None	2.00	2.00
New Zealand	Doctoral	2.00	1.00
Norway	Master	2.00	1.00
Pakistan	None	3.00	--
Romania	Doctoral	--	2.00
Scotland	Doctoral	1.00	1.00
Seychelles	None	1.00	2.00
Slovak Republic	Doctoral	--	--
South Africa	Doctoral	2.00	2.00
Switzerland	Master	2.00	1.00
Turkey	None	2.00	2.00
United States	Doctoral	1.00	2.00
Venezuela	Bachelor	3.00	2.00
Vietnam	Master	2.00	3.00
Zimbabwe	Master	3.00	1.00

*Values Rounded; 1=Never; 2=Sometimes; 3=Often (Lack of Support/Low Status)