

# **Positive Psychology Center Annual Report**

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May 23, 2016

**Martin Seligman, Director**

**Peter Schulman, Executive Director**

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This is a report on the activities of the Positive Psychology Center (PPC). The PPC was officially created November 7, 2003 and is thriving intellectually and financially. It is the leading center in the world for research, education, application and the dissemination of Positive Psychology. It is widely recognized in both the scholarly and public press. The PPC is financially self-sustaining and contributes substantial overhead to Penn.

The mission of the PPC is to promote empirical research, education, training, application, and the dissemination of Positive Psychology. Positive Psychology is the scientific study of the strengths that enable individuals and communities to thrive. This field is founded on the belief that people want to lead meaningful and fulfilling lives, to cultivate what is best within themselves, and to enhance their experiences of love, work, and play.

## SIGNIFICANT DEVELOPMENTS

### **Grit: New Book by Dr. Angela Duckworth:**

- In *Grit: The Power of Passion and Perseverance*, Dr. Angela Duckworth shows parents, students, educators, athletes, and business people that the secret to outstanding achievement is not talent but a special blend of passion and persistence she calls "grit."

### **New Resilience Training Contracts:**

- **Resilience Training with the U.S. Army.** We are continuing to deliver train-the-trainer resilience programs to U.S. Army soldiers. Since 2009, we have helped train thousands of soldiers who have in turn taught resilience skills to many thousands of other soldiers.
- **Resilience Training with the University of Texas System.** We are delivering train-the-trainer resilience programs to the University of Texas. We are training personnel to teach resilience skills to University of Texas students.
- **Resilience Training for New Clients.** We continue to develop new clients in new markets, including corporations (Deloitte, Kimberly-Clark Professional) and professional sports (Oklahoma City Thunder). We also have new clients in existing markets, including education (St. Catherine's School in Australia) and the Department of Defense (Learning & Development Division under the Office of the Secretary, Washington Headquarters).
- **Resilience Training for the Penn Division of Public Safety (DPS).** In FY16, approximately 170 personnel in DPS attended our resilience program.

### **New Research:**

- **Teaching Well-being Skills Improves Academic Performance (Ministries of Education in Bhutan, Mexico, and Peru).** As part of his doctoral research under the supervision of Dr. Martin Seligman, Dr. Alejandro Adler conducted three large-scale randomized controlled trials in a total of 782 secondary schools (grades 7-12) with a total of 771,300 students in three countries – Bhutan, Mexico and Peru. The schools were randomly assigned to an intervention group or a control group. The intervention schools received a positive education program targeting ten non-academic well-being skills. Students in the intervention schools reported significantly higher well-being and they performed significantly better on standardized national exams after the intervention. These results suggest that, independent of social, economic, or cultural conditions, teaching well-being in schools on a large scale is both feasible and beneficial.
- **Situational Strategies for Self-Control.** Dr. Angela Duckworth (PI) received a 3-year grant from the John F. Templeton Foundation from September 2016 to August 2019.
- **Performance Task Measures of Self-Control and Grit.** Dr. Angela Duckworth (PI) received a 3-year grant from the Walton Family Foundation from December 2015 to November 2018.
- **Positive Education in the Philippines: Educating for Academic Success and for Well-being.** Dr. Alejandro Adler (PI) received a two-year grant from Quezon City Academy from September 1, 2015 to August 20, 2017. The purpose of this research grant is to introduce Positive Education in the Philippines starting with 20 pilot schools.

- **Measuring the Well-being of the Spanish Population.** Dr. Martin Seligman (PI) received a new 6-month grant from Bioiberica from September 2015 to February 2016. We built a language-based model to estimate the regional variation in well-being within Spain and developed an interactive map through which to display the results. See Research section for more details.

### **Outreach Programs:**

- **The International Positive Education Network (IPEN).** IPEN was recently created by Dr. Martin Seligman and Lord James O'Shaughnessy to bring together teachers, parents, academics, students, schools, colleges, universities, charities, companies and governments to promote a new approach to education: academics + character + well-being. The goals are to support collaboration, change education practice and reform government policy. IPEN has gained attention from over 159 countries and currently has thousands of members. IPEN is hosting a large conference called the Festival of Positive Education in Dallas, Texas July 18-20, 2016. Some of the 800-1,000 members in attendance will be from the United Nations, Organisation for Economic Cooperation and Development (OECD), and the Programme for International Student Assessment (PISA). <http://www.ipositive-education.net/>
- **Positive Psychology Lunch Series Talks.** In November of 2010, we initiated the Positive Psychology Lunch Series talks, which is held once or twice each month at the Positive Psychology Center (except the summer months), for the local psychology community. In the last 12 months, we had 19 speakers, including Bob Mankoff (Cartoon Editor of The New Yorker), Arthur Brooks (President of the American Enterprise Institute), Barry Schwartz (Psychology, Swarthmore), and Paul Bloom (Psychology, Yale). Speakers are local or visiting scholars with research relevant to Positive Psychology. Attendance ranges from about 20 to 80 people for each event. Speakers also meet with interested faculty, post-doctoral fellows and graduate students. Some of the speakers are scholars from other Penn departments, to forge connections with these departments. These are low-cost talks, in which most speakers are local or visiting Philadelphia for other purposes. The non-local speakers receive travel reimbursement and typically no honorarium, though there are small honoraria in rare circumstances for the more distinguished scholars. These talks will continue in FY17.

## **PPC PERSONNEL**

Martin Seligman, Ph.D., Director of PPC and Zellerbach Family Professor of Psychology  
Angela Duckworth, Ph.D., Associate Professor of Psychology  
Paul Rozin, Ph.D., Professor of Psychology  
Peter Schulman, Executive Director

### Resilience Training Programs:

Peter Schulman, New Business Development  
Karen Reivich, Ph.D., Director of Resilience Training  
Elizabeth Van Leer, Senior Project Manager, Resilience Training  
Grace Cormier, Senior Project Manager, Resilience Training  
Margeaux Cannon, Project Manager, Resilience Training

### Positive Soldier Health Grant:

Loryana Vie, Ph.D., Program Director  
Andrew Allen, Statistical Analyst  
Joseph Fisher, Statistical Analyst / Postdoctoral Research Fellow  
Alice Shrestha, Statistical Analyst

### Science of Imagination Grant:

Scott Barry Kaufman, Scientific Director  
Elizabeth Hyde, Research Coordinator

### Prospective Psychology Grants, Stage 1 and Stage 2:

Jeanette Elstein, Project Manager

### Grit and Self-Control Research Grants:

Lauren Eskreis-Winkler, Postdoctoral Research Fellow  
Alyssa Matteucci, Research Coordinator  
David Meketon, Research Coordinator  
Evan Nesterak, Research Coordinator  
Rebecca Nyquist, Research Coordinator  
Annie Daeun Park, Postdoctoral Research Fellow  
Rachel White, Postdoctoral Research Fellow  
Alisa Yu, Research Coordinator

### World Well Being Research Grant:

Anneke Buffone, Lead Research Scientist / Postdoctoral Research Fellow  
Thomas Apicella, Research Programmer  
Jordan Carpenter, World Well Being Project  
Patrick Crutchley, Research Programmer  
Salvatore Giorgi, Research Programmer  
Selah Lynch, Research Programmer  
Sphoorti Mirji, Web App Developer  
Daniel Preotiuc-Pietro, Postdoctoral Research Fellow  
Barbara Preuninger, Web App Developer  
Laura Smith, Project Manager

Christine Versagli, Director of Web Development  
Phillip Yu, Research Programmer

David Yaden, Research Coordinator, Meaning and Purpose Project  
Linda Newsted, Administrative Assistant for Dr. Martin Seligman  
Tammer Ibrahim, IT Systems Administrator  
Samuel Wilkoff, IT Systems Support Specialist

Master of Applied Positive Psychology Program (MAPP):

James Pawelski, Ph.D., Director of Education and Senior Scholar  
Leona Brandwene, Associate Director  
Aaron Boczkowski, Program Coordinator  
Sydney Rubin, Program Assistant Coordinator

Graduate Students:

Alejandro Adler (satisfied doctoral requirements in April 2016)  
Jeremy Clifton  
Johannes Eichstaedt  
Xuan Gao

Undergraduate Student Assistants: Numerous student research assistants help with various projects

## **PPC ADVISORY BOARD**

We are currently recruiting new members to advise on burgeoning areas, including Big Data, dissemination, MOOCs, China, among other areas. The board previously consisted of Richard Schultz, Martin Seligman, Robert DeRubeis, Jerry Wind, Larry Gladney, John DiIulio, and Kathleen Hall Jamieson. Ex officio members include Nora Lewis, Ralph Rosen and James Pawelski. This board advised both PPC and MAPP. We are in the process of recruiting new members for the board.

## **PPC ADVISORS**

Following are some of the leading scholars who have worked with Dr. Seligman in charting the course of Positive Psychology:

- Mihalyi Csikszentmihalyi, Claremont Graduate University
- Edward Diener, Psychology, University of Illinois
- Kathleen Hall Jamieson, University of Pennsylvania Annenberg School of Communication
- George Vaillant, Psychiatry, Harvard University
- Darwin Labarthe, Centers for Disease Control and Prevention
- Steven Blair, University of South Carolina
- Roy Baumeister, Florida State University
- Peter Railton, University of Michigan
- Chandra Sripada, University of Michigan

## RESEARCH SUMMARIES

Dr. Martin Seligman, Dr. Angela Duckworth, as well as some of the current and former PPC graduate students have received research grants from several foundations – the John Templeton Foundation, Templeton Religion Trust, Robert Wood Johnson Foundation, Mellon Family Foundation, Spencer Foundation, and the Gates Foundation. Following are descriptions of the current research grants at the Positive Psychology Center.

**Teaching Well-being Improves Academic Performance in Bhutan (Bhutanese Ministry of Education, PI-Dr. Martin Seligman).** As part of his doctoral research, Dr. Alejandro Adler conducted a large-scale randomized controlled trial (RCT) in 18 secondary schools (grades 7-12) with a total of 8,385 students in Bhutan. The schools were randomly assigned to an intervention group or a control group. The intervention schools received a positive education program targeting ten non-academic well-being skills. Students in the intervention schools reported significantly higher well-being and they performed significantly better on standardized national exams at the end of the 15-month intervention, and 12 months after the intervention ended.

**Teaching Well-being Improves Academic Performance in Mexico (Jalisco Ministry of Education, PI-Dr. Martin Seligman).** As part of his doctoral research, Dr. Alejandro Adler conducted a large-scale randomized controlled trial (RCT) in 70 secondary schools (grades 10-12) with a total of 68,762 students. The schools were randomly assigned to an intervention group or a control group. The intervention schools received a positive education intervention targeting ten non-academic well-being skills. Students in the intervention schools reported significantly higher well-being and they performed significantly better on standardized national exams at the end of the 15-month intervention.

**Teaching Well-being Increases Academic Performance in Peru (Peruvian Ministry of Education and World Bank, PI-Dr. Martin Seligman).** As part of his doctoral research, Dr. Alejandro Adler conducted a large-scale randomized controlled trial (RCT) in 694 secondary schools (grades 7-12) with a total of 694,153 students. The schools were randomly assigned to an intervention group or a control group. The intervention schools received a positive education intervention targeting ten non-academic well-being skills. Students in the intervention schools reported significantly higher well-being and they performed significantly better on standardized national exams at the end of the 15-month intervention.

**World Well Being Project (WWBP): Measuring well-being using big data, social media, and language analyses (Templeton Religion Trust, PI-Dr. Martin Seligman).** WWBP is an interdisciplinary collaboration drawing on psychology, natural language processing, and machine learning to develop new techniques to measure psychological and physical well-being based on language in social media such as Facebook and Twitter. By leveraging massive social media datasets (“Big Data”) containing information of tens of millions of people, we are shedding light on psychosocial processes underlying health and well-being. Our unobtrusive measures complement, and often provide deeper insights than expensive survey methods. Ultimately, we hope that our insights and analyses will help individuals, organizations, and governments choose actions and policies that will improve psychological, social, physical, spiritual, and economic well-being for people worldwide.

**Measuring the Well-being of the Spanish Population. (Bioiberica, PI-Dr. Martin Seligman).** We have produced and validated a model that estimates the regional variation in well-being within Spain (at the level of provinces) from Tweets in Spanish. This included developing a Spanish PERMA (Positive Emotion, Engagement, Positive Relationships, Meaning, Accomplishment) lexicon and developing a Well-Being Map. The results are displayed on the Map, which allows the general population to view variations between regions. Penn will retain the rights to use this lexicon for other studies.

**Advancing the Science of Imagination: Toward an “Imagination Quotient” (Templeton Foundation/Imagination Institute, PI-Dr. Martin Seligman).** This grant is comprised of two main components: (1) An award program to fund researchers interested in the measurement and enhancement of imagination. The objective is to stimulate interest and support rigorous research in this area. (2) A series of research meetings during which creative leaders in various fields will be invited to exchange and discuss ideas about the nature and enhancement of imaginative abilities. The objective of this component is to generate innovative research questions and to investigate imagination from a domain-specific perspective.

**Prospective Psychology Stage 1: Imagination and Being Drawn into the Future and Prospective Psychology Stage 2: A Research Competition (Templeton Foundation, PI-Dr. Martin Seligman).** These are two inter-linked new grants for the field of Prospective Psychology. These two 3-year grants will explore how people are drawn to the future as opposed to driven by the past. We will conduct foundational research on prospective thought, defined as mental and emotional representations of possible future events, hold conferences of leading scholars and award research grants through a competitive RFP process.

**Positive Soldier Health (Robert Wood Johnson Foundation: PI-Dr. Martin Seligman).** This 4-year project supports a collaboration between the University of Pennsylvania and the U.S. Army to explore, on a large scale, the influence of psychological and physical health assets on illness, health care utilization and health care expenditure. This project is enabled by an Army initiative that is integrating 40 different datasets, combining data on the health, illness, health care utilization and psychological fitness of all active-duty personnel – currently more than a million soldiers. The project will also create the infrastructure for a civilian-military collaboration that will enable researchers outside the military to analyze the dataset and to explore issues related to traditional health-risk factors. Deliverables will include 40 proof-of-concept cross-sectional analyses for the relationship of key health assets and health-risk factors to key utilization variables; 40 proof-of-concept longitudinal analyses for the relationship of health assets and health-risk factors as predictors of illness and utilization; establishment of a civilian-military steering committee to oversee the analyses and develop protocols, processes and resources to enable external researchers to use the database; initiation of at least five external research projects in each of Project Years 3 and 4; and a plan for sustainability.

**Positive Health (Robert Wood Johnson Foundation: PI-Dr. Martin Seligman).** This 4-year project lays the groundwork for a new approach to improving physical health that focuses on "health strengths," instead of the traditional emphasis on diagnosis, treatment and prevention of disease. The premise is that health strengths are a buffer against physical and mental illness and, more importantly, that low-cost interventions can be designed to increase a person's health strengths. Such interventions could provide some low-cost options that improve health and reduce costs. The deliverables include (1) a formalized concept of Positive Health, (2)

identification of variables that appear to be strong predictors of Positive Health, (3) a review of the relevant longitudinal studies that could be re-analyzed for Positive Health, (4) identification of interventions that could help people improve performance on those predictors, and (5) ideas for further development of the field.

**Universal Assessment Research: Is the world good and does it matter? (Templeton Religion Trust, PI-Dr. Martin Seligman).** We will explore how overall judgments of the world, termed “universal assessments” (UAs), affect human behavior and life outcomes. Key questions include: Which UA profiles are most conducive to wellbeing? Can interventions be administered? The goal of this project is to identify innovative, efficacious, and scaleable interventions which can be used to improve the human condition. In decades ahead, businesses, teachers, therapists, religious leaders, governments, and others may adopt practices promoting certain UAs. Parents may make conscious choices about which UAs they wish to pass on to children. Individuals will be able to take questionnaires to assess their UA profile, learn how it might be optimized, and discover how others’ UAs influence them through the social network.

**The Humanities and the Science of Well-Being: Toward a Strategic Collaboration for Understanding, Measuring, and Cultivating Human Flourishing (Templeton Religion Trust, PI-Pawelski).** The purpose of this project is research to define, measure, and cultivate well-being in the humanities. There are three main activities: (1) research on the nature of the contemporary “positive turn” toward well-being and on the contributions the humanities might make in this endeavor, (2) the identification of leading scholars in the humanities, who believe in the importance of a strategic collaboration between these two domains for the study of well-being, and (3) the development of a large, multi-year, interdisciplinary grant proposal to launch such a strategic collaboration. Outputs include three peer-reviewed articles, a major entry in a standard reference work, six public lectures, a graduate course, a detailed listing of interested scholars in various disciplines, a planning meeting with some dozen key thought leaders, and a major grant proposal.

**Positive Education in the Philippines: Educating for Academic Success and for Well-being (Quezon City Academy in Chile, PI Alejandro Adler).** The purpose of this research grant is to introduce Positive Education in the Philippines starting with 20 pilot schools. The grant covers baseline measurement in the domains of well-being, academic performance, and health outcomes. It also covers training of teachers, principals, and trainers in the skills to teach and practice Positive Education. Finally, it also covers post-intervention measurement after the end of the program.

**Situational Strategies for Self-Control (John F. Templeton Foundation).** Students who can resist momentarily rewarding temptations in the service of more enduringly valued goals excel academically. One fundamental question concerns the relative effectiveness of diverse self-control strategies for school-age children. In this project, we will address the following hypotheses: 1. Situation selection and modification strategies increase self-controlled behavior more effectively than do cognitive strategies initiated later in the process of impulse generation 2. Situation selection and modification strategies diminish feelings of effort or distress relative to cognitive strategies 3. The behavioral benefits of situation modification and selection are partially mediated by the less effortful phenomenology of these self-control strategies

**Performance Task Measures of Self-Control and Grit (Walton Family Foundation).** Our goal is to develop a suite of performance tasks assessing self-control and grit for middle school and high school students.

**Character Development in Adolescence (Templeton Foundation: PI-Dr. Angela Duckworth).** The primary aims of the project are: (1) to examine the impact of character strengths on academic success, social functioning, and psychological well-being; and (2) to examine potential interactions and overlap among character strengths. The primary measurement aims of the project are: (1) to develop age-appropriate, ecologically valid, teacher-report and self-report questionnaires assessing behavioral, cognitive, and motivational dimensions of these character strengths for use by both researchers and educational practitioners; (2) to create protocols and scoring rubrics for semi-structured interviews with adolescents about these strengths for use by researchers; (3) to examine evidence of reliability and construct validity (i.e., convergent, discriminant, and predictive validity) of newly developed questionnaires; and (4) in partnership with the Character Lab, to promote the use of valid measurement practices in the construction and evaluation of character development interventions.

**Online Performance Tasks of Academic Diligence (University of Notre Dame, under a Templeton Foundation grant: PI-Dr. Angela Duckworth).** The primary aim of this grant is to develop scaleable, online measures of academic diligence in a variety of domains. This involves rigorously piloting and revising novel tasks and culminates in a large-scale data collection in which we aim to validate these measures.

**Building Grit via Online Interventions (Character Lab, PI-Dr. Angela Duckworth).** This project has two primary aims: (1) to develop an online intervention that makes middle and high school students grittier, and (2) to develop a series of behavioral tasks that reliably measure grit. The proposed online intervention studies build upon a series of randomized-controlled interventions. Further randomized-controlled grit-building interventions will be administered to students in schools across the U.S. beginning in September, 2013.

**Character Counts: Development of a Character Growth Card (Character Lab, PI-Dr. Angela Duckworth).** This project has three related aims: (1) to develop teacher-report and self-report questionnaires assessing character strengths in middle school students, (2) to establish evidence of these questionnaires' internal reliability, test-retest stability, convergent validity, discriminant validity, and predictive validity for a wide range of outcomes, and (3) to develop a format for reporting data from these questionnaires that makes salient to students changes in their character ratings over time and encourages them to set goals for improvement and plan for them.

**Getting Grittier: Grit Curriculum & Professional Development for RBCS Elementary & Middle School (Mellon Family Foundation: PI-Dr. Duckworth).** To meet the needs of students and families, RBCS plans to increase enrollment by 52%, from 485 to 730 students, and create a leading middle school serving grades 6 through 8. In addition to a rigorous core academic curriculum, we believe that helping students build character will be essential to their long-term success. Educators and researchers agree that character strengths like "grit" are highly correlated with academic, social, health, and professional success. While the RBCS elementary school builds character through a myriad of activities, we plan to design a middle school that

deliberately and systematically fosters grit and other essential character strengths in every student through an advisory model.

**Self-Control Strategies in School-Age Children (Robert Wood Johnson Foundation: PI-Dr. Duckworth).** The primary aim of this study is to examine self-control strategies in children, aimed to help them bypass immediately rewarding temptations for rival activities whose benefits accrue much later. This project will develop brief online interventions that teach self-control strategies to school-age children and adolescents, and test their effects on academic outcomes (e.g., homework completion, grades) and physical outcomes (e.g., healthy eating, physical activity).

**Research Network on the Determinants of Life Course Capabilities and Outcomes (National Institute on Aging, PI Duckworth).** The goal of this project is to better understand the underlying causes/sources of early inequality, how it affects individual capabilities later in life, and whether there are key times when intervention would improve capabilities.

**Early Child Development Programs: Effective Interventions for Human Development (National Institute of Child Health and Human Development, Co-I Duckworth).** This project promises substantial increases in knowledge of ECD by exploiting a rich new data set with a national representative longitudinal sample of 15,000 children initially 0-5y of age and their families with linked data that permit extensive characterization of the children and their family members and the ECD programs to which they have been exposed in Chile.

**EDUCATION: GRADUATE AND UNDERGRADUATE**

**The Master of Applied Positive Psychology (MAPP).** The MAPP program has completed its eleventh year and this program has been successful in academic and financial terms. The number and quality of applicants and matriculates has been consistently high and the students have given the program high marks in their evaluations. Following are the number of applicants and admissions each year:

	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13
Applications	106	111	123	166	163	181	178	236
Admits	34	36	41	38	45	36	36	36
	2013/14	2014/15	2015/16	2016/17				
Applications	198	166	162	209				
Admits	39	32	38	40 (est.)				

In line with the PPC’s stated mission of promoting education, PPC faculty, post-doctoral fellows and graduate students teach the following undergraduate and graduate-level courses through the School of Arts and Sciences and the College of Liberal and Professional Education:

**Martin Seligman**

- MAPP 600: Intro to Positive Psychology (graduate level)

**Angela Duckworth**

- MAPP 601: Research Methods and Evaluation (graduate level)

**Paul Rozin**

- Psychology 70-001: Psychology of Food (undergraduate level)

**Karen Reivich**

- MAPP 708: Positive Psychology and Individuals (graduate level)

**James Pawelski**

- MAPP 602: Foundations of Positive Interventions (graduate level)
- MAPP 710: Humanities and Human Flourishing (graduate level)

**Judith Saltzberg**

- MAPP 708: Positive Psychology and Individuals (graduate level)
- MAPP 800: Capstones (graduate level)

**Scott Barry Kaufman**

- Psychology 266-001: Introduction to Positive Psychology (undergraduate level)
- MAPP 600: Intro to Positive Psychology (graduate level) – Guest Speaker

**Johannes Eichstaedt**

- MAPP 600: Intro to Positive Psychology (graduate level) – Guest Speaker
- Psychology 001: Introduction to Experimental Psychology (undergraduate level) – Teaching Assistant

**David Yaden**

- MAPP 600: Intro to Positive Psychology (graduate level) – Assistant Instructor
- MAPP 710: Humanities and Human Flourishing (graduate level) – Assistant Instructor

**Amy Walker Rebele**

- MAPP 602: Foundations of Positive Interventions (graduate level) – Assistant Instructor
- MAPP 708: Positive Psychology and Individuals (graduate level) – Assistant Instructor

**Alejandro Adler**

- MAPP 600: Intro to Positive Psychology (graduate level) – Guest Speaker

**RESILIENCE TRAINING PROGRAMS**

Since 2007, we have delivered more than 265 Penn Resilience Programs around the world that include more than 40,000 people. Many of these programs are train-the-trainer programs in which we train people how to teach the resilience skills to others, using a structured curriculum. Attendees of these programs have gone on to train hundreds of thousands of others, primarily school students and U.S. Army soldiers.

These resilience programs have been delivered to a variety of populations – educators (K-12 and college), U.S. Army soldiers, police officers, mental health professionals, senior leaders, corporations and a professional sports organization.

These training programs have been a success as judged by the participant satisfaction ratings and repeat contracts with sponsors. Participant satisfaction ratings for all our clients have been excellent, with average satisfaction ratings ranging from 4.5 to 5.0, on a 1 to 5 scale where 5 is best.

Here is a brief background on our resilience programs: Resilience is teachable. From 1990 to 2007, Dr. Martin Seligman and his colleagues, Dr. Jane Gillham, Dr. Karen Reivich, and Peter Schulman, received over \$10 million dollars in federal grants from the National Institute of Mental Health (NIMH) and the U.S. Department of Education to conduct research and development on resilience programs with three different populations – middle school students, high school students, and college students. This series of large scale, longitudinal, controlled studies showed that individuals who attended the resilience programs had significantly less depression, anxiety and conduct problems, and higher well-being and optimism than those in the control group.

These studies have been published in peer-reviewed journal publications, documenting the benefits of these programs. There have been at least 22 controlled studies with more than 2,000 children and adolescents.

Drs. Seligman, Reivich, and Gillham are leaders in their fields. Dr. Seligman is well-known for his ground-breaking work in depression, helplessness, and Positive Psychology, and Dr. Reivich and Dr. Gillham are leaders in the field of depression prevention and school-based intervention research. The Penn Positive Psychology Center team has more than 25 years of experience developing and delivering resilience programs using a train-the-trainer model.

In 2007, we started offering our resilience programs as a service. Our Director of Resilience Training, lead curriculum developer and head trainer, Dr. Karen Reivich, has led all aspects of this delivery and developed a large cadre of trainers to carry out these programs. This has enabled Penn to deliver many large-scale training programs. These training programs include:

## **RESEARCH PUBLICATIONS 2015-16**

### **Martin E.P. Seligman Publications:**

Maier, S. F., & Seligman, M. E. P. (in press). Learned helplessness fifty years later: Insights from neuroscience. *Psychological Review*.

H. Andrew Schwartz, Maarten Sap, Margaret L. Kern, Johannes C. Eichstaedt, Adam Kapelner, Megha Agrawal, Eduardo Blanco, Lukasz Dziurzynski, Gregory Park, David Stillwell, Michal Kosinski, Martin E.P. Seligman, Lyle H. Ungar. (2016). Predicting individual well-being through the language of social media. *Pacific Symposium on Biocomputing* 21:516-527.

Adler, A. & Seligman, M.E.P. (2016) Using well-being for public policy: Theory, measurement, and recommendations. *International Journal of Well-being*, 6, 1-35.

- Seligman, M.E.P. Foreword. (in press) In L. Oades, A. Jarden, and M. Slade (eds.) *Wellbeing, recovery and mental health*, Cambridge University Press.
- Adler, A. & Seligman, M. E. P. (under review) "Increasing well-being enhances academic performance in Bhutan." *AERA Open*.
- Adler, A. & Seligman, M. E. P. (under review) "Well-being and academic achievement: A call for research action." *International Review of Education*.
- Seligman, M. E. P., Ho, T. E., Scheier, L. M., Allen, A. R., Vie, L. L., Cornum, R., & Lester, P. B. (2015). Catastrophic thinking predicts PTSD: From a new authoritative Army database. Manuscript submitted for publication.
- Vie, L. L., Scheier, L. M., Lester, P. B., & Seligman, M. E. P. Psychometric properties of the U.S. Army Global Assessment Tool: Application of exploratory structural equation modeling and confirmatory factor analysis. Manuscript submitted for publication.
- Seligman, M. (2015). Chris Peterson's unfinished masterwork: The real mental illnesses. *Journal of Positive Psychology: Special issue in memory of Chris Peterson*, 10(1), 3-6.  
doi:10.1080/17439760.2014.888582
- Roepke, A. M. & Seligman, M. E. P. (2015). Doors opening: A mechanism for growth after adversity. *Journal of Positive Psychology*, 10(2): 107-115,  
doi:10.1080/17439760.2014.913669
- Rashid, T., Summers, R. F. and Seligman, M. E. P. (2015) *Positive Psychology*. In A. Tasman, J. Kay, J. A. Lieberman, M. B. First and M. B. Riba (eds.) *Psychiatry*, fourth edition, John Wiley & Sons, Ltd, Chichester, UK. doi: 10.1002/9781118753378.ch30
- Seligman, M.E.P (2015). Preface. In Jeste, D.V. & Palmer, B.W. (Eds.) *Positive psychiatry: A clinical handbook*. Arlington, VA: American Psychiatric Publishing.
- Roepke, A. M. and Seligman, M. E. P. (2015), Depression and prospection. *British Journal of Clinical Psychology*. Advance online publication, doi: 10.1111/bjc.12087
- Seligman, M.E.P. (2015) Foreword. In J. M. Norrish (author) *Positive education: The Geelong Grammar School journey* (pp. ix-xii). Oxford: Oxford University Press.
- Seligman, M. E. P. (2015). Introduction: How are we called into the future? In D. B. Yaden, T. D. McCall, & J. H. Ellens (Eds.), *Being called: Scientific, secular, and sacred perspectives* (xvii-xxvi). Santa Barbara, CA: Praeger.

### **Angela Duckworth Publications:**

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