



University of Pennsylvania
ScholarlyCommons

Master of Applied Positive Psychology (MAPP)
Capstone Projects

Master of Applied Positive Psychology (MAPP)
Capstones

8-2018

Rooted in Resilience: A Framework for the Integration of Well-Being in Teacher Education Programs


Jessica Spurgeon

University of Pennsylvania, jessiespurgeon@gmail.com

Lauren Thompson

University of Pennsylvania, thompsonl@dexterschools.org

Follow this and additional works at: https://repository.upenn.edu/mapp_capstone

 Part of the [Adult and Continuing Education and Teaching Commons](#), [Curriculum and Instruction Commons](#), [Educational Methods Commons](#), [Elementary Education and Teaching Commons](#), [Higher Education and Teaching Commons](#), [Junior High, Intermediate, Middle School Education and Teaching Commons](#), [Other Teacher Education and Professional Development Commons](#), [Pre-Elementary, Early Childhood, Kindergarten Teacher Education Commons](#), and the [Secondary Education and Teaching Commons](#)

Spurgeon, Jessica and Thompson, Lauren, "Rooted in Resilience: A Framework for the Integration of Well-Being in Teacher Education Programs" (2018). *Master of Applied Positive Psychology (MAPP) Capstone Projects*. 144.
https://repository.upenn.edu/mapp_capstone/144

This paper is posted at ScholarlyCommons. https://repository.upenn.edu/mapp_capstone/144
For more information, please contact repository@pobox.upenn.edu.

Rooted in Resilience: A Framework for the Integration of Well-Being in Teacher Education Programs

Abstract

The process of teaching students is incredibly difficult. Oftentimes, the adversities of the profession sway highly effective teachers into social and emotional deficits, and eventually lead to burnout (Spilt, Koomen, & Thijs, 2011; Wisniewski & Gargiulo, 1997). Emotional depletion, burnout, and high attrition in the profession may be costly for the educational system – both financially and academically (Klusmann, Richter, & Lüdtke, 2016). We suggest that the key to preventing burnout, and cultivating flourishing students, is through the educators themselves. Educators who are taught, practice, and implement the skills of well-being at the onset of their careers are more likely to positively adapt and endure the adversities associated with the profession. Investigation of the current integration of well-being skills in teacher education programs suggests that teaching well-being is not prioritized and, therefore, not well included in the curriculum of teacher education programs. As a result, we suggest a framework for the reform of teacher education programs, which includes well-being accreditation standards, supporting domains, and sample courses. Planting a seed of resilience within teacher education programs may allow educators to build foundational practices and pedagogies based on the science of human flourishing. We hope that our research sparks conversations about the importance of prioritizing teacher well-being and resilience.

Keywords

resilience, teacher resilience, positive psychology, teacher well-being, pre-service teacher training, education reform, positive education, teacher education

Disciplines

Adult and Continuing Education and Teaching | Curriculum and Instruction | Educational Methods | Elementary Education and Teaching | Higher Education and Teaching | Junior High, Intermediate, Middle School Education and Teaching | Other Teacher Education and Professional Development | Pre-Elementary, Early Childhood, Kindergarten Teacher Education | Secondary Education and Teaching | Teacher Education and Professional Development

Rooted in Resilience: A Framework for the Integration of Well-Being in Teacher Education Programs

Jessie Spurgeon
Lauren Snider Thompson

University of Pennsylvania

A Capstone Project Submitted in Partial Fulfillment for the Degree of Master of Applied Positive Psychology

Advisor: Jane Gillham, Ph.D.

Rooted in Resilience: A Framework for the Integration of Well-Being in Teacher Education Programs

Jessie Spurgeon
Lauren Snider Thompson

matteringminds@gmail.com

Capstone Project
Master of Applied Positive Psychology
University of Pennsylvania
Advisor: Jane Gillham, Ph.D.

Abstract

The process of teaching students is incredibly difficult. Oftentimes, the adversities of the profession sway highly effective teachers into social and emotional deficits, and eventually lead to burnout (Spilt, Koomen, & Thijs, 2011; Wisniewski & Gargiulo, 1997). Emotional depletion, burnout, and high attrition in the profession may be costly for the educational system – both financially and academically (Klusmann, Richter, & Lüdtke, 2016). We suggest that the key to preventing burnout, and cultivating flourishing students, is through the educators themselves. Educators who are taught, practice, and implement the skills of well-being at the onset of their careers are more likely to positively adapt and endure the adversities associated with the profession. Investigation of the current integration of well-being skills in teacher education programs suggests that teaching well-being is not prioritized and, therefore, not well included in the curriculum of teacher education programs. As a result, we suggest a framework for the reform of teacher education programs, which includes well-being accreditation standards, supporting domains, and sample courses. Planting a seed of resilience within teacher education programs may allow educators to build foundational practices and pedagogies based on the science of human flourishing. We hope that our research sparks conversations about the importance of prioritizing teacher well-being and resilience.

Keywords: resilience, teacher resilience, positive psychology, teacher well-being, pre-service teacher training, education reform, positive education, teacher education

Preface: Our Letter of Gratitude

We never planned to be educators. In fact, both of our initial educational careers took us far from the teaching profession. Lauren became a pharmaceutical representative earning her undergraduate degree in biology, and I (Jessie) intended on pursuing a career in the medical field after completing an undergraduate degree in human physiology. But teaching is a calling, and it is one that neither of us could ignore.

Education is also in our blood. Both of our mothers have been dedicated, lifelong educators who taught us the importance of prioritizing student well-being, finding purpose and meaning in even the most difficult teaching situations, and living a balanced, fulfilling life outside of the classroom. Our moms are educational pioneers, and we have had the privilege of growing up with, and learning from, some of the best teachers that we know. To us, they define a resilient teacher. As educators, they dedicated endless amounts of time and energy promoting the social and emotional health of students, but they also came home each night and parented to the very best of their ability. They modeled personal and classroom well-being for us, and we now hope to shed light on the skills which may have helped them flourish in their teaching careers.

While our mothers will adamantly describe the teaching profession as being seeped in adversity, they personify the fulfilling nature of the field. They were able to thrive – able to advocate for student well-being, despite all odds. Our mothers' thriving careers, and our determination to understand what was different about them – what they possessed that allowed them to not only endure the challenges, but become better educators because of those difficulties – is the root of our project.

ROOTED IN RESILIENCE

We posit that fulfillment from the profession, after teaching for a combined sixteen years ourselves, is something that educators must work for and actively pursue. Over the years, we have watched our mothers fearlessly battle the educational system and its immensely skewed focus on academic achievement. Because of our mothers, we know that education is far more than sharing information and teaching content related skills. Because of our moms, we try our best to prioritize relationships and connections with students and peers, appreciate and respect the development of ourselves and others, and create a safe environment and culture where our students and, just as importantly, we can become contributing, thriving community members.

This capstone is a small token of gratitude for our loving, caring mothers and fathers who have endlessly supported us in our pursuit of sharing the science of well-being with fellow educators. You are our roots. This is also for our students – we would not be the people we are today without your beautiful influence on our lives. Thank you all for modeling love, kindness, patience, and peace for us, we promise to continue to share these ideals in our schools and classrooms so that every student has the opportunity to flourish.

Table of Contents

Seeding Resilience: A Case for Educational Wellbeing.....	6
Introduction	6
The reform of teacher education.....	8
Figure 1. A framework for the integration of well-being in teacher education.....	9
The Undergrowth: Status Quo of the Teaching Profession.....	10
Stress and Adversity in the Field.....	10
Defining emotional exhaustion.....	10
Increased burnout.....	11
High turnover and attrition.....	12
Financial Costs of Poor Mental Health in Educators.....	12
Academic Costs of Poor Mental Health in Educators.....	14
A Sprouting Field: The Science of Well-Being Through Resilience.....	16
Positive Psychology and Positive Education.....	16
Resilience: A Fundamental Component of Positive Psychology.....	18
Promoting Well-being Through Resilience.....	20
Weathering the Storm: Resilience in All Educators.....	21
Defining a Resilient Teacher.....	22
Teacher Resilience Affects Student Achievement and Student Behavior.....	23
Taking Root: Teaching Teacher Resilience in Preparation Programs.....	25
Accreditation for Teacher Preparation Programs.....	26
Unbalanced Program Focus on Content and Instruction.....	27
Figure 2. Wordle 1: Inclusion of the majority of standard language.....	27
Figure 3. Wordle 2: Accounting for the who (provider, candidate, student)	28
Finding PERMA in the standards.....	29
Translation for teacher education programs.....	30
Required non-content/instruction related courses.....	31
Table 1. University courses possibly fulfilling domains of well-being.....	31
Finding Growth: Proposed Accreditation Standards and Supporting Domains.....	34
Table 2. Proposed Courses to Fulfill Accreditation Standard.....	35
Table 3. Domains Supporting Proposed Standard 0 (Table 2)	35
Why Are Preparation Programs the Place to Start?	36
Promoting personal development.....	36
Utilizing an Appropriate Model for the Dissemination of Resilience.....	37
Digging Deeper: Courses and Lesson Plans for Program Success.....	39
Table 4. Proposed Courses to Fulfill Accreditation Standard 0 (Table 2).....	39
Zooming-in: Example lessons to fulfill the course syllabus.....	40
Remaining Rooted: Looking Toward the Future.....	41
References.....	42
Appendix A Rooting in Resilience Course Syllabus.....	50
Appendix B Sample Lesson Plans.....	57
Appendix C Process of Examining the Standards Using Wordle.....	59
Appendix D CAEP Standards.....	60
Appendix E Edited Standard Verbiage for Wordle 1.....	61
Appendix F Refined Standard Verbiage for Wordle 2.....	62

Seeding Resilience: A Case for Educational Well-being

Introduction

Every day, students and teachers alike are seeking key components of well-being, a key component of the good life. All people, including our youth, have an insatiable desire to find happiness through this ideal (Seligman, Ernst, Gillham, Reivich, & Linkins, 2009). Educators can provide a space where students can safely engage in the process of building the components of well-being (Gillham et al., 2013). In order for educators to be able to teach their students about how to live happily, think critically, and connect deeply with others, they must embody and model these skills themselves. They must learn and practice the components of well-being first before teaching these skills to others.

Unfortunately, it is difficult for teachers to personally experience heightened well-being while juggling a myriad of responsibilities, such as providing effective instruction for students, handling parental needs, appropriately managing student discipline, cultivating a supportive school community, embracing the newest technology, understanding differing teaching practices, and incorporating curriculum. Attempting to manage these various roles leads to increased stress, workload, burnout rates, and, ultimately, attrition – and many educators who stay in the classroom, despite the adverse nature of the profession, experience lower work satisfaction (Pillay, Goddard, & Wilss, 2005). Other sources negatively affecting teacher well-being include increased educational standards with little professional development opportunities and increased legislative and administrative regulation (Acton & Glasgow, 2015). Unfortunately, increasing responsibilities such as these, without increasing adequate resources and personal assets to support changes, has caused undue adversity for many educators (Spilt, Koomen, & Thijs, 2011).

ROOTED IN RESILIENCE

In a study which compared the work-related stress of 26 occupations, teaching was ranked as one of the most stressful (Johnson et. al, 2005). The research suggests three variables contribute to occupational stress – psychological well-being, physical health, and job satisfaction. Teaching was the second highest rated occupation for negatively associated physical health due to work-related stress, only behind ambulance workers. Additionally, teaching was the second highest rated occupation for negatively associated well-being, only behind social service caregivers (Johnson et al., 2005). In essence, the physical and mental stressors of teaching have a greater impact than the majority of other careers. While teaching can be incredibly rewarding, this research suggests the immense stressors of the profession may highly degrade job satisfaction. Indeed, out of the 26 observed occupations, teaching was the 6th least satisfying job due to high work-stress (Johnson et al., 2005).

Hopefully, the picture we are painting is quite clear: teachers need help navigating the mental and physical demands of the job. If teachers are more adequately prepared to handle the stressors of the profession, and find more satisfaction along the way, we posit teaching effectiveness and overall mental and emotional outcomes for both teachers and students will be more positive than the status quo.

Typically, in education, we focus solely on the students. As a teaching community, we love our students, and we are absolutely aware that the future of humanity is formed from the students of today. But educators are an influential foundation of a student's learning career – ones who share their views of life, happiness, and thinking – and model behaviors coinciding with such beliefs. Therefore, we believe the key to transforming education is through the educators themselves.

ROOTED IN RESILIENCE

Educators can change the course of a student's life with one kind word, one loving hug, one thoughtful glance. Indicating the importance of highly skilled teaching professionals who appropriately model self-awareness, mental health, and positive contributions for their students. Teachers are the seeds supporting either the growth of flowers or the spread of weeds. We believe teachers can help students find happiness in a very difficult world, and it starts with promoting well-being within themselves, by tending to their own garden of human potential.

The reform of teacher education. In particular, we posit that making positive, large-scale, long-term changes in educational well-being may start with foundational courses pre-service teachers take prior to entering the profession. Specifically, we suggest a national well-being standard for teacher accreditation programs to adopt, with supporting domains of well-being to be taught which fulfill the standard. Our intention is that these domains may be incorporated within a teacher education program in two ways – through newly adopted undergraduate courses, and through a highlighted context within pre-existing undergraduate teacher education courses. Figure 1 outlines the framework we suggest to support the dissemination and inherent integration of well-being in teacher education programs.



Figure 1. A framework for the integration of well-being in teacher education

ROOTED IN RESILIENCE

Throughout the course of this paper, we examine the current state of educators' mental health, the costs of not prioritizing teacher well-being, and the current instructional focuses of teacher education programs. We additionally explore positive psychology, the study of well-being and human flourishing, and a branch of the discipline called positive education. Specifically, we address resiliency as a critical skill in promoting teacher well-being, intending to build a strong case for current teacher education program reform through state adoption of the suggested accrediting standards and domains. Finally, we suggest a course catalogue, with classes based on the science and domains of well-being, an example course syllabus based on resiliency, and a few specific lesson plans which current universities and other accrediting teacher education programs could adopt immediately.

The Undergrowth: Status Quo of the Teaching Profession

Stress and Adversity in the Field

Undue stress, in any career, can have long standing effects on employees' mental or emotional health (Johnson et al., 2005). In particular, the field of education often sways teachers into social and emotional deficits due to the adversities of increased workload and decreased resources and personal assets. This eventually leads to feelings of burnout and exodus from the profession (Spilt et al., 2011; Wisniewski & Gargiulo, 1997). Research centered on teacher effort and reward ratios demonstrates that educators often believe the amount of effort they invest into teaching outweighs the rewards (Pillay et al., 2005), suggesting the stress and adversity of the profession are overwhelming. Teachers must be taught to not only endure, but to prevail over challenges, in order to find meaning and satisfaction in their jobs.

Defining emotional exhaustion. Emotional exhaustion is often defined as the chronic state of emotional and physical depletion due to high levels of stress or workload (Wright &

ROOTED IN RESILIENCE

Cropanzano, 1998). Emotional exhaustion may be the first sign of overwhelming teaching stressors, which deplete educators of necessary positive affect, such as enthusiasm. Enthusiasm, in particular, is a critical component of the profession, as it may positively contribute to students' levels of intrinsic motivation and vitality (Patrick, Hisley, & Kempler, 2000). Employees experiencing physical and emotional fatigue due to overwhelming stress often experience symptoms such as chronic sickness, sleep disturbances, headaches, and gastrointestinal issues (Wright & Cropanzano, 1998). Emotional depletion, and other negative affective states such as anger, depression, and anxiety, may be linked to chronic stress and burnout (Klusmann, Richter, and Lüdke, 2016). Indeed, emotional exhaustion is one of the three fundamental symptoms of burnout as defined by Maslach, Jackson, & Leiter (1996). Unfortunately, educators are subject to the largely negative impact of emotional depletion and exhaustion. Conversely, it is important to recognize all teachers do not experience emotional depletion (Carson, Plemmons, Templin, & Weiss, 2011), suggesting that some individuals may have factors which help them buffer against negative professional adversities (Dicke et al., 2015).

Increased burnout. Burnout may be defined as chronic emotional depletion which has remained unresolved due to high stress and workload. Burnout ultimately decreases work effectiveness, which is often the case for teachers in the classroom (Papastylianou, Kaila, & Polychronopoulos, 2009). Educational adversities – such as poor student behavior, increasing job responsibilities, and higher academic demands – immediately impact new teachers, causing many to experience the symptoms of burnout within their first eight months in the career (Pillay et al., 2005). Great Britain, the United States, Australia, Hong-Kong, Canada, New Zealand, Holland, and other countries show teachers who suffer from such stress comprise 33% of the educational population, all of whom may be at risk of burnout (Papastylianou et al., 2009).

ROOTED IN RESILIENCE

High turnover and attrition. Chronic emotional depletion may cause teacher burnout, leading to high levels of turnover and attrition in the field. Estimates suggest that between 40-50% of new teachers will leave the profession within five years of starting their careers (Mansfield, Beltman, Broadley & Weatherby-Fell, 2016), many of whom experienced symptoms of burnout prior to leaving the system. For example, 60% of educators who left the profession in the Netherlands had suffered from burnout (Farber, 1991). But even if teachers do not leave the profession entirely, it is estimated that annual turnover is 25.6%, meaning that each year one out of every four teachers either leaves the profession or changes educational environments (Boe, Cook, & Sunderland, 2008).

Research suggests teacher turnover may negatively impact school policy reform by creating a sense of instability and lack of consistency in curriculum implementation, resulting in the need for costly, continuous training for new teachers (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009). Even more devastating, the highest qualified teachers are the most likely to turnover by leaving the profession or transferring between buildings or districts (Boyd et al., 2009; Boe et al., 2008).

Financial Costs of Poor Mental Health in Educators

There are both financial and educational costs associated with educators who suffer from emotional depletion, burnout, or mental illness. Although some professions may view mental healthcare as an unnecessary benefit, it may be economically beneficial to prioritize for educators because the cost of employing educators with poor mental health is high. In 1998, Great Britain had an annual cost of £230,000,000 for stress and anxiety disorders in the educational field, where the inclusion of costs is unclear (Papastylianou et al., 2009). A report by McCrone, Dhanasiri, Patel, Knapp, and Lawton-Smith (2008) similarly suggest there may be

ROOTED IN RESILIENCE

high, and continually increasing, financial costs of mental illness. The costs of mental illness in this study consist of the primary health service diagnoses and the related loss of employee work. Fortunately, this same study suggests an investment in evidence-based mental health interventions may pay off through net savings (McCrone et al., 2008).

Beyond the impact on educator mental health, promotion of well-being in teachers may produce net gains financially by increasing the well-being of the general population. According to the economic research of Insel (2008), 6.2% of national healthcare spending in the United States is on costs associated with mental illness. An economic burden of \$317 billion is a highly conservative estimate of both the direct and indirect costs of serious mental illness each year, which “is equivalent to more than \$1,000/year for every man, woman, and child in the United States” (Insel, 2008, p. 664). Educating teachers on the benefits of cultivating well-being, providing opportunities to learn about resilience and how to protect mental and emotional states, and promoting mental health is likely to also increase students’ recognition and implementation of skills which foster well-being – potentially equating to years of future economic savings in mental illness costs.

Indeed, when employees aren’t well, the national and economic systems fail financially, but when an investment is made in supporting well-being within organizations, companies can financially benefit. A model published by the Department of Health in London compare the savings of workplaces which commit to employee well-being, to the costs of organizations who do not support well-being. The report suggests that an initial investment of £40,000 for employee well-being efforts, produces a return of £387,722 each year in reduced presenteeism (employees who are physically at the workplace, but not mentally functioning at their best) and absenteeism (Knapp, McDaid, & Parsonage, 2011). While the financial liabilities of employees

ROOTED IN RESILIENCE

suffering from poor mental health is great, this study illustrates an investment in well-being and mental health is fiscally responsible and profitable. But while financial implications may be globally important, the cognitive, social, and emotional success of students is imperative, and achievable, when supported by teachers who foster well-being within themselves.

Academic Costs of Poor Mental Health in Educators

More importantly than the fiscal liabilities of educators' poor mental health is the academic costs for students. Teachers at urban schools and schools with higher populations of low-performing students are more likely to leave the profession (Boyd et al., 2009). This dilemma leaves students who are in the most need of social, emotional, and academic school support without the highest quality educators (Lassen, Steele, & Sailor, 2006; Talbert-Johnson, 2006). Furthermore, because consistency in school instructional programs may influence student achievement, it is particularly important to have consistent implementation of these programs from dedicated, coherent educators (Newman, Smith, Allensworth, & Bryk, 2001; Guin, 2004). Understandably, curricular consistency is not possible with high occurrences of teacher turnover and attrition.

But not only does the stress of education cause the more highly-qualified teachers to seek solace in higher-privileged and higher achieving populations, the turnover caused by the adversities of teaching harms student achievement. A study conducted by Ronfeldt, Loeb, and Wyckoff (2013) suggests students who received more instruction from turnover teachers had lower academic achievement in both English language arts and math. In the eight-year study, over 850,000 observations of New York City students in fourth and fifth grade were compiled. Turnover was defined in terms of educators who either stayed in the same grade level at the same school (stayers) or first year teachers or movers. Stayers were professionals who stayed in the

ROOTED IN RESILIENCE

same school from one year to the next. Movers were defined as teachers who were new to the school, including first year teachers. While 36% of grade level teams did not experience any turnover from one year to the next, 3% of grade level teams experienced 100% teacher turnover rates each year (Ronfeldt, Loeb, & Wyckoff, 2013).

There were significantly negative effects in students' English and math academic achievement when teacher turnover rates were higher as compared to years of lower turnover rates. Specifically, the study found that student math scores were "8.2% to 10.2% of a standard deviation lower in years when there was 100% turnover as compared to years when there was no turnover at all" (Ronfeldt et al., 2013, p. 18). This research is some of the first empirical evidence suggesting a causal relationship between teacher turnover and student achievement--specifically that higher teacher turnover rates may be more likely to cause lower student achievement (Ronfeldt et al., 2013). Furthermore, these academic effects of turnover seem to permeate the entire educational system--even students who have educators outside of the turnover redistribution are harmed by the effects.

But even if educators stay in their current position, emotional exhaustion, due to the inherent stressors of the job, can negatively impact student achievement (Klusmann et al., 2016). Empirical research on teacher burnout suggests that emotional depletion likely has serious consequences on an educator's work performance and, consequently, on student learning (Maslach & Leiter, 1999). In a cross-sectional study using multi-level modeling, Klusmann et al. (2016) examined 1,102 elementary school teachers and sought to investigate the association between students' academic achievement and teacher's emotional depletion and performance. Students' academic achievement data was collected by the National Assessment Study in Germany, and levels of teachers' emotional depletion was assessed using both teacher self-report

ROOTED IN RESILIENCE

and the Maslach Burnout Inventory (Maslach et al., 1996). The study controlled for gender, years of experience, teaching certificate, classroom composition, and on student ability level. Overall, the relationship between a teacher's emotional depletion and students' academic achievement in math was statistically significant, and suggests that higher levels of emotional depletion may negatively impact student achievement. Furthermore, negative impacts on academic achievement, due to high levels of emotional depletion in teachers, were found to be greater for lower-achieving students (Klusmann et al., 2016).

High teacher well-being may translate into better student outcomes--the greatest benefit of all. Due to increased attrition and burnout rates, teacher well-being should be prioritized, supported, and addressed with the hopes of creating flourishing teachers who remain in their field of expertise and dedicated to the profession for many years.

A Sprouting Field: The Science of Well-Being Through Resilience

Positive Psychology and Positive Education

Positive psychology, as defined by Seligman and Csikszentmihalyi (2000), key founders of the discipline, is the study of what makes life worth living. In particular, it is the study of human strengths, contentment, optimism, and happiness--all essential components of what may be considered a good life--a life of well-being. While most of traditional psychology has made many scientific advancements through studying mental illness, positive psychology strategically focuses on the study of mental well-being, and in particular, what it means to flourish (Seligman & Csikszentmihalyi, 2000).

To define the idea of human flourishing, Seligman (2011) sub-categorizes positive psychology into the domains of positive emotions, engagement, relationships, meaning, and achievement (PERMA). Furthermore, Seligman and Csikszentmihalyi (2000) posit that in order

ROOTED IN RESILIENCE

for individuals and organizations to establish a culture of well-being, factors which not only buffer against and prevent mental illness, but also which allow individuals to thrive, must be examined and rigorously researched. Factors such as courage, insight, future-mindedness, interpersonal skills, perseverance, originality, forgiveness, and love must all be incorporated when searching for ways to foster thriving communities and deepen human flourishing (Seligman, Steen, Park, & Peterson, 2005). But unfortunately, factors such as these--love, optimism, originality, etc.--are all greatly ignored in the educational realm, and all of which are arguably some of the most important aspects of a balanced, effective education (Seligman et al., 2009). While more research is emerging around the importance of these skills, we posit that teaching these skills to students must be preceded by teaching these skills to educators. It may be the process of personally grappling with and developing well-being which will allow them to better thrive within the classroom. In order to model optimism, love, perseverance, forgiveness, and other elements of well-being for students, educators must be highly practiced and highly versed in the skills themselves.

As the scientific field of positive psychology continues to grow and the well-being of individuals further becomes a focus, it is natural to identify sectors that lend to large scale dissemination. Schools provide an established, lasting place in which positive psychology concepts may and should be integrated within current school curriculum promoting a positive school culture (Hamilton & Hamilton, 2009). The fusion between traditional teaching practices and the science of positive psychology has led to the formation of a new form of education, positive education. Seligman, Ernst, Gillham, Reivich, and Linkins (2009) define positive education as education “for both traditional skills and for happiness” (p. 293). Schools who adopt positive education seek to provide students with learning opportunities that promote

ROOTED IN RESILIENCE

wellness, allow for the discovery and expression of individual character strengths, and ultimately lead to optimal human functioning or flourishing (Norrish, Williams, O'Connor, & Robinson, 2013).

The primary goal of positive education is to educate students to feel well, use their strengths and talents to contribute to the communities in which they are involved, and ultimately, flourish. When the well-being of students is central to the educational structure of a school, research demonstrates a significant improvement in academic achievement (Suldo, Thaji & Ferron, 2011) and student behavior (Herman, Hickmon-Rosa, & Reinke, 2018). A longitudinal study conducted by Suldo et al. (2011) define academic achievement as a compilation of a student's course grades, standardized test scores, and school attendance. These same measures are often used to define academic achievement in other research. Herman et al. (2018) evaluate student behavior through a teacher observation measure called the Teacher Observation of Classroom Adaptation Checklist (Koth, Bradshaw & Leaf, 2009). Teacher observations include evaluation of: student concentration problems, disruptive behavior, prosocial behavior, family problems, family involvement, emotional regulation, and internalizing problems (Koth, Bradshaw, & Leaf, 2009).

While research on the benefits of positive education for students is only beginning to emerge, we posit that positive education, to be as impactful as possible, requires high quality practitioners; meaning, that we not only need educators who are well versed in their understanding of positive psychology, but also in their personal practice. We hope teacher education programs integrate the concept of positive education into their current curriculum and culture because teachers who are educated through the process of positive education are more likely to adopt the pedagogy and mindsets that are required to integrate components of positive

ROOTED IN RESILIENCE

psychology into their own teaching practices. Within this model, teachers completing a teacher education program would experience and deepen their appreciation for the promotion of positive emotions, engagement in learning, strong social connections, a deep sense of mattering as an individual and as a collective, and the feeling that their contributions are valued and recognized (Norrish et al., 2013).

Resilience: A Fundamental Component of Positive Psychology

In order for an educator to flourish or function optimally in their personal and professional lives, it is necessary to endure and persist through adverse conditions. Even better, educators grow through these challenges by strengthening oneself and functioning even more optimally in response to those challenges. Resilience defines just that--the ability to endure and bounce-back from challenges or adversity (Southwick & Charney, 2012). Fortunately, research suggests individuals are capable of learning skills which promote personal resilience, and organizational environments, such as teacher education programs, may be structured to optimize learned resiliency (Gillham et al., 2013). In examining the research, psychologists have identified several characteristics, or protective factors, possessed by resilient individuals. Specifically, Masten and Reed (2002) have identified resilience protective factors to be "...optimism, problem solving, self-efficacy, self-regulation, emotional awareness, flexibility, empathy and strong relationships" (p. 13).

Protective factors are the foundation for resiliency programs which teach individuals the necessary skills to bounce back in the face of abrupt or chronic adversity (Reivich, Seligman, & McBride, 2011). The Penn Resiliency Program (PRP), originally a school-based program to build resilience within adolescent youth, chose to focus their program and curriculum on these protective factors. The Master Resilience Training is another resilience program conducted by

ROOTED IN RESILIENCE

the University of Pennsylvania which targets promoting resilience in the United States military (Reivich et al., 2011). The program focuses their resilience training on the following protective factors: biology, optimism, self-awareness, self-regulation, mental agility, self-efficacy, connections and positive institutions (Reivich & Saltzberg, 2018).

Southwick and Charney (2012) also have identified protective factors leading to flourishing individuals. In order to identify these personal characteristics, Southwick and Charney chose to interview Vietnam POW's, Special Forces Instructors, and everyday civilians who have undergone trauma yet have managed to lead productive lives. After conducting these interviews, researchers compared individuals' answers and noted themes or similarities between these highly resilient people. The protective factors they identified are: facing fears, optimism, a moral compass, religion or spirituality, social support, role models, physical fitness, brain fitness, cognitive and emotional flexibility, and meaning/purpose (Southwick & Charney, 2012).

The models presented here have similar themes which encourage educational programs to teach about optimism, the importance of social connection, building self-awareness, and the ability to be mentally agile in any given situation. Based on these conclusions, the undergraduate teacher education course we have proposed in this paper will focus on a combination of the resiliency protective factors identified in the research. The overall goal of including protective factors within pre-service, undergraduate teacher training is to deeply foster educator resilience with the hopes of maintaining highly qualified, passionate, and emotionally and physically strong educators in the profession. Planting the seed of resilience within teacher education programs allows for educators to grow a rooted foundation upon which all their educational practices and pedagogies may grow and thrive.

Promoting Well-being Through Resilience

ROOTED IN RESILIENCE

Resilient people are better able to adapt and achieve positive outcomes despite significant exposure to stressors or adversity (Masten, 2001), meaning resilient individuals, of any age, are those who are able to thrive or flourish regardless of the negative situations or struggles they may encounter. Similarly, research by Dunn, Iglewicz, and Moutier (2008) describes the importance of building personal coping skills, or resilience protective factors, in order to prevent burnout and promote well-being. We suggest promoting resiliency skills early in an educator's training and career will not only allow them to endure the adversities they continually face, but also grow stronger personal, professional, and classroom well-being. Despite overwhelming stress, we believe that educators can thrive.

Cognitive behavioral therapy research suggests resilience is an important component of building and fostering well-being. Mak, Ng, and Wong (2011) contend resilient individuals likely hold positive views of the self, the world, and the future. Optimistic mindsets help individuals buffer against depression through the promotion of positive emotions and increased life satisfaction. Building resilience through positive cognition, an increase in positive emotions, and higher life satisfaction, may improve personal and organizational well-being (Mak et al., 2011).

Concurrently, Zautra, Arewasikporn, and Davis (2010) relates the degree of resilience an individual has to their likelihood of flourishing. The research by Zautra et al. (2010) suggest resiliency is determined by the adaptive responses in recovery, sustainability, and growth. Recovery is the ability to bounce back after adversity, whereas sustainability is the capacity to endure chronic stressors, both of which are incorporated in how other researchers may define resilience (Zautra et al., 2010; Southwick & Charney, 2012). It seems likely growth, the final component of resiliency, is a key aspect of well-being, particularly in terms of flourishing

ROOTED IN RESILIENCE

(Seligman, 2011). Teachers would find it extraordinarily difficult to embody aspects of well-being if they were unable to endure or bounce back from stressors. Furthermore, key components of flourishing, such as finding meaning, deepening relationships, and increasing accomplishments, are likely to be the product of the growth phase of resiliency (Seligman, 2011; Zautra et al., 2010).

We suggest that well-being and resiliency have a dynamic-interplay, with a change in one most likely affecting the other. While stressors are inherent within the educational realm, educators can be armed with the tools to enhance their ability to endure, bounce back, and grow from adversity and difficulty. In this way, educators can promote personal resilience, which is an important component of building and sustaining human flourishing (Mak et al., 2011).

Therefore, while our sample syllabus could have focused on any aspect of positive psychology, we focused on resiliency. We feel it is a foundational skill for any educator entering the profession and in promoting person well-being, student well-being, and organization well-being.

Weathering the Storm: Resilience in All Educators

Defining a Resilient Teacher

Generally, teacher resilience may be defined as a teacher's ability to maintain a balance between the positive and negative moments and emotions they experience and their ability to maintain commitment and agency during the daily grind of teaching (Gu, 2013). Teaching is an emotional occupation. Teachers typically enter the profession seeking to fulfill an emotional need or to contribute and make a difference, but many end up leaving the profession due to emotional exhaustion associated with burnout (Day & Gu, 2009). Interestingly, it is not just newer educators who face emotional exhaustion. Research suggests that emotional exhaustion is

ROOTED IN RESILIENCE

positively correlated with teachers' years of experience (Klusmann et al., 2016), illustrating that teachers are constantly battling with the stressors related to the field. A teacher who can successfully navigate adverse situations, including mental and physical depletion, and still continue to teach effectively, is considered resilient.

In a study conducted by Herman, Hickmon-Rosa and Reinke (2018) three teacher profiles emerged in regards to resiliency--a well-adjusted teacher (low stress, high self-efficacy, high coping); a moderately adjusted teacher (moderate scores in stress, self-efficacy, and coping); and a poorly adjusted teacher (high stress, low self-efficacy, and low coping). Based on survey results, only 7% of teachers were considered in the well-adjusted category, which suggests that only 7% of the teacher population may feel personally resourced enough to handle the stressors associated with teaching. Within this study, teachers were considered resilient if they had high coping skills, high self-efficacy and scored within the 7%. The data represents an overwhelming need to help educators build resiliency skills and strengthen coping mechanisms.

Similarly, other research suggests that resilient teachers have a strong sense of agency, or a view that they have control over their future and daily behavior. Individuals who experience agency are future minded, reflective and self-aware, seek others for support and celebration, feel confident in their competence, and have a pervasive sense of purpose (Howard & Johnson, 2004).

In a similar study on teacher resilience, educators who were better able to cope and thrive despite continual stress were educators who had been taught the value of cultivating coping skills and protecting their own well-being (Howard & Johnson, 2004). Additionally, teachers who seek to proactively cultivate well-being, as opposed to reacting to stressors with drinking, taking time off, or smoking, are teachers who are more likely to be resilient in the face of continual

ROOTED IN RESILIENCE

difficulties within the classroom (Howard & Johnson, 2004). Supporting the theory that educators need to receive explicit instruction about appropriate, sustainable, and healthy ways to endure the pressures of teaching and daily life.

Teacher Resilience Affects Student Achievement and Behavior

Effectively educating students is a complex venture, involving content, curriculum, and specific teaching practices or pedagogy. Popular teacher evaluation systems, such as the Danielson Framework (2011) and the Marzano Teacher Evaluation Model (2013), primarily focus on students' academic growth, teacher content knowledge, teacher effectiveness and implementation of specific district level teaching strategies, classroom environment, and teacher professionalism as a means to determine teacher quality. However, research suggests effective delivery of curriculum and content are not the only contribution to the academic success of students and marks of an effective teacher. Rather, student success may depend more strongly on the prioritization of positive teacher-student connections (Gu, 2014). Deepening and prioritizing teacher-student connections, in research conducted by Gu (2014), is what defines a qualified educator. In this same study, high-quality teachers are described as typically displaying the characteristics of resilient teachers by deriving meaning from their work, seeking connections with other teachers and students, building self-efficacy, and committing to their own personal wellness and growth (Gu, 2014).

Specifically, this study examined the relationship between qualified teachers and student success, finding higher qualified teachers being more likely to have higher student academic achievement. This is even more evident with students who attend school in low socioeconomic areas. For example, some students who had high-quality teachers experienced more than an additional year of learning growth within a given school year. Conversely, some students who

ROOTED IN RESILIENCE

did not receive instruction from a high-quality teacher experienced a decline in both their academic achievement and behavior (Gu, 2014). Additionally, these students had lower satisfaction with school and were at a greater risk of dropping out (Baker, 1999).

Educator well-being has the potential to positively impact the quality of instruction as well as the academic achievement of students. In a study conducted by Klusman, Richter and Lüdtke (2016), students taught by educators who were emotionally exhausted and suffered from symptoms of burnout earned lower math scores than students who had teachers with no symptoms of burnout. This relationship held even after controlling for classroom composition and teacher characteristics. Research also demonstrates motivational and emotional characteristics of teachers influence student achievement and student motivation--particularly in the areas of self-efficacy and self-regulation (Klusman et al., 2016). That is, a teacher who is motivated and engaged in teaching, and who models self-efficacy and self-regulation, has greater influence on the expression of these characteristics within their students.

Resilient teachers not only support greater student academic achievement, but they also cultivate classroom environments which lead to better student behavior (Herman, Hickmon-Rosa, & Reinke, 2018). Research suggests teachers who experience burnout may struggle to form successful connections with their students, leading to greater teacher irritability (Herman et al., 2018). Poor teacher-student connections may also cause heightened negative behavior from students, decreases in pro-social behavior, and negative impacts on student academic achievement (Herman et al., 2018). Indeed, the quality of the relationship between the teacher and student is foundational to the academic and the emotional success of both the teacher and student. Additionally, and possibly more importantly, teacher-student connections are the best predictor of a student's level of resilience (Gu, 2014). The teacher-student relationship has been

ROOTED IN RESILIENCE

shown to impact a student's level of engagement within the school community, their attitude toward learning, and their ability to socially and emotionally adjust (Spilt, Koomen, & Thijs, 2011). Additionally, successful teacher-student relationships positively impact the educator. Teachers who are satisfied with student connections are more fulfilled, find greater purpose in their job, and are more motivated to continue to contribute to their profession (Spilt et al., 2011).

Therefore, resilient teachers, who are thriving in their profession, may have the potential to induce positive upward spirals in the classroom. Research by Fredrickson and Joiner (2002) posits that when positive emotions are experienced, they increase the likelihood of experiencing more positive emotions in the future, thereby starting an upward spiral of positive emotions. Based on this research, we believe, in the classroom, teachers who model emotional well-being, and continually practice positive skills of resilience, may then be more likely to experience upward spirals of positive classroom culture, such as higher student engagement and enthusiasm; stronger and more fulfilling relationships; increases in pro-social behavior; and more effective socio-emotional adjustment. We suggest that promoting positive factors, such as these, will cause an upward spiral of positive consequences and equate to general improvements in student well-being and academic achievement.

Taking Root: Teaching Teacher Resilience in Preparation Programs

The process of teaching children is incredibly difficult. Each student requires differing amounts of water and nutrients to sprout and survive. But what all students have in common is that they all must sprout, and they all must survive, and it is the adults in their life which help support their growth from a seed to a tree. To raise the healthiest trees, we need the best botanists to tend to them, so if we want the happiest kids, we need the highest qualified educators to lead them. It begins with an educator's seed and grappling with the implementation of

ROOTED IN RESILIENCE

resiliency skills and techniques on a personal level first. Research suggests adults need to both practice and continually build resiliency skills (Masten, Cutuli, Herbers, & Reed, 2009; Southwick & Charney, 2012). But in order for educators to practice resiliency in both their personal and professional lives, they must be explicitly taught the skills. Just as teachers are taught the utilization of empirical instructional practices, the implementation of effective curriculum, and the appropriate usage of assessment to guide instruction (Hord & Huling-Austin, 1986), educators need to understand how the brain's natural default systems works, how to positively engage in social situations, and how to navigate highly-charged emotional situations.

Accreditation for Teacher Preparation Programs

How can educators better understand their own thinking, and interactions with the world? How can educators become better versions of themselves, ultimately modeling and teaching these skills to their students? We must start by educating teachers, not only the importance of well-being, but how to implement these skills and techniques in their own life in order to flourish. We must build from the ground up—starting to integrate components of well-being at the onset of an undergraduate teacher education program. We must tend to the seed.

To become a certified teacher who is employable in the United States' public education system, candidates must fulfill the requirements of an accredited teacher education program. Individual state requirements mandate differing accreditation factors, but for the purposes of this paper we will focus on our residential states, Michigan and Idaho. Both state laws require individuals who seek teacher certification to complete a teacher education program which has been approved by the state board of education (Michigan Department of Education, 2018; Idaho Department of Education, 2018).

Unbalanced Program Focus on Content and Instruction

ROOTED IN RESILIENCE

In our local areas of Michigan and Idaho, universities or colleges with teacher education programs are accredited by The Council for the Accreditation of Educator Preparation (CAEP) or the Teacher Education Accreditation Council (TEAC), and use these accrediting entities' standards as a guide to determine required courses and specific learning opportunities students should experience in each program (Teacher Accreditation Education Council, 2014). Herein lies the problem. The standards of all the accreditation firms lack verbiage that require and support teacher well-being or skills of resilience in their programs' models. The popular themes and vocabulary found within these standards have been put into a Wordle, which may be seen in Figure 2 and 3, visually representing the 5 overarching standards of CAEP. The process involved in the examination of these standards is included in Appendix C.



Figure 2. Wordle 1: Inclusion of the majority of standard language

A few clarifications may be necessary to better understand the vocabulary presented here. The words provider and program refer to the teacher education program which is being accredited, whereas the words candidate and completer refer to the educator who is completing the program in order to gain certification.

ROOTED IN RESILIENCE

There are a few important insights which can be made from this visual. First, there is very little language which describes the importance of well-being in the educational field. Additionally, the emphasis of the responsibility of the provider, or the teacher education program, may be notable. If accrediting entities primarily rely on the provider to make meaning of the standards and guide students towards being sustainable educators, it is likely that these programs, which adopt the accrediting standards, may be a feasible focus for the prioritization of educator well-being. Indeed, it is the provider who ultimately creates program pathways, courses, and curriculum.

But we wanted to dig deeper. Obviously, the program and the students in the program are important, but keeping that language in Figure 2, was undermining the verbiage which described the actual content and curriculum which CAEP prioritized for teacher education programs. We did this by further editing the standards as described in Appendix C.



Figure 3. Wordle 2: Accounting for the *who* (provider, candidate, student)

At face value, Wordle 2 appears to be a much better representation of what we would hope might be prioritized in an education program for any discipline. The themes of learning,

ROOTED IN RESILIENCE

impact, development are most likely the cornerstones to any educational program, but what we suggest is still missing, even after accounting for the *who* involved in the program and learning, is a foundational knowledge and implementation of skills relating to well-being.

Finding PERMA in the standards. Revisiting the definition of positive psychology, or the study of human flourishing, Seligman (2011) posits that a life worth living is one which promotes positive emotions and engagement, as well as one which prioritizes deep connections and relationships with others. Finally, and possibly most importantly, the aspect of well-being which may be sorely lacking in these accreditation standards is the component of meaning, or purpose. Meaning and purpose may be a driving force behind many teachers' desire and will to stay in the teaching profession despite endless adversities (Loughran, 2002), and it may be an important theme to educate teachers about in their professional pursuit. Human flourishing is also related to achievement, which so often is perceived as merely academic in the educational realm, but may also include accomplishments based on improving skill or effort in a given domain (Seligman, 2011). While effort, agency, or self-efficacy are not components of any of the CAEP standards, building skill through practice does appear to be a priority, and that may help to contribute to teacher well-being.

Because, for the purpose of this paper, our focus on teacher well-being stems from resiliency, it is necessary to revisit the resiliency protective factors described earlier. These protective factors, through understanding and application, may promote teacher well-being by deepening an educator's ability to endure, bounce back, and grow from adversity (Southwick & Charney, 2012). Notably, connectedness, relationships, self-efficacy, optimism--all of which would be considered important aspects of the well-being model of PERMA--are missing from the standards.

ROOTED IN RESILIENCE

Finally, while this may not be adequately portrayed in the Wordle (Figures 2 and 3), a focus on one's self is highly lacking in the accrediting standards, meaning that programs which use these guidelines to educate future teachers are not required to ask teachers to work on personal development of any of these skills. Rather, the standards are primarily student-oriented. For example, the word which appears largest on Wordle 2 (Figure 3) is development, however, the majority of the references to development are in regards to the student, and not an educator's personal development. These standards seem to be conversely written, where the teacher is expected to focus first on students, and primarily on students. But what research suggests is that the better versed an educator is in the study and application of well-being, the more proficient they will be at teaching their students how to apply these skills in order to live a life of flourishing. To be clear, we value the importance of prioritizing students' well-being, but educators also need to be proficient practitioners in order to cultivate flourishing in students. We posit that teacher education programs are the place to start implementation and practice of such skills.

Translation for teacher education programs. After analyzing the accreditation verbiage, it is no surprise the focus on content and instruction in these standards translate into an overwhelming focus of content and instruction in teacher education programs. Indeed, as a result of these standards, which must be adopted by university programs in order to be accredited and support teacher certification in the state, the current preparatory program courses focus primarily on content and instruction. Although it is important for teachers to be prepared academically, with skills of quality instruction and an understanding of grade level content, we hope that our contention throughout this paper has been quite clear—the primary focus of teacher preparation should not solely be learning curriculum and instruction. While teaching curriculum in a novel,

ROOTED IN RESILIENCE

exciting way may be one component of an educator's career, it is not the only responsibility, and, arguably, not the most important aspect of their job. Teachers also need to understand how to create positive classroom environments, effectively handle student discipline, communicate effectively with parents, and understand the social-emotional development and needs of students--all of which may impact student achievement just as greatly as quality instruction and content (Pillay et al., 2005).

Required non-content/instruction related courses. We have become extraordinarily interested in the amount of time in which teacher education programs dedicate to content and instruction and the components of well-being and positive development, which we contend, from personal experience in such programs, was highly skewed towards curriculum development. In our residential states, we have begun examining course catalogues and requirements for teacher education programs, which we found to be consistent with our contention--at least two-thirds of each program solely emphasizes content and instructional strategies. The remaining one-third of the required courses are generously considered aspects of well-being, presenting themes of child development, diversity, and physical health. More importantly, none of the required courses focus on the individual teacher and their ability to personally develop. The course titles, which we assume contain instruction on at least some domains of well-being, are listed in the table below.

Table 1. University courses possibly fulfilling domains of well-being

Michigan University #1	Michigan University #2	Idaho University #1	Idaho University #2
Educational Psychology (2 credits)	Human Development and Learning (4 credits)	Learning Development and Assessment (3 credits)	Foundations of Education (3 credits)
Teaching Students with Exceptionalities (3 credits)	Introduction to Inclusion and Disability Studies (3 credits)	Teacher Culturally Diverse Learners (4 credits)	Cultural Diversity in Schools (3 credits)

ROOTED IN RESILIENCE

Children as Sensemakers (3 credits)	Schools for a Diverse and Democratic Society (3 credits)	Educating for Exceptionalities (2 credits)	Child and Educational Psychology (3 credits)
Foundations of Education and Culturally Responsive Pedagogy (2 credits)	Health Education for Elementary Grades (2 credits)	Developmental Psychology (3 credits)	Exceptionality in Schools (3 credits)
Problems and Principals of Elementary Education (2 credits)		Elementary Physical and Health Education (3 credits)	Migration Studies in Education (3 credits)
Foundations of Education and Working with Families (1 credit)		Contexts of Education (2 credits)	
Program total = 48 education credits	Program total = 56 education credits	Program total = 96 education credits	Program total = 78 education credits
Content/instruction Specific Credits = 35 credits	Content/instruction Specific Credits= 44 credits	Content/instruction Specific Credits = 79 credits	Content/instruction Specific Credits = 63 credits
Percentage of content/instruction Credits = 73%	Percentage of content/instruction Credits = 78%	Percentage of content/instruction Credits = 82%	Percentage of content/instruction Credits = 80%

Through examination of the course catalogue and requirements of teacher education programs at two prominent universities in both Idaho and Michigan, we have found the courses listed in the Table 1 to be the most likely to contain some aspects of well-being instruction. The table also lists the total specific education course credits required by the department of education at each university (this excludes general graduation requirements such as basic writing or math courses, which are mandated for all students), as well as the number of content and instruction specific credits required. Using the total education-specific required course credits, and the content/instruction specific course credits, we have found the percentage of content/instruction program credits which are required for certification.

At the most prestigious teacher education program in Michigan, students enrolled in the elementary education program are required to take forty-eight education credits in addition to

ROOTED IN RESILIENCE

their liberal arts course requirements. Of those credits, 73% of the courses are content/instruction specific. Content/instruction specific courses refer to classes which highlight best teaching practices for teaching academic concepts such as math, science, social studies, and language arts, as well as classes on deepening understanding of the content itself. At the largest teaching university in Michigan, undergraduate elementary teaching students are required to take fifty-six education credits. Of those credits, 78% of the courses were content/instruction focused. A similar pattern was found in Idaho programs. At one of the most prominent universities in Idaho, elementary education students are required to take ninety-six education credits, 82% of which are based on content and instructional practices. Students at another large Idaho program are required to take seventy-eight education credits and of those 80% were content specific.

As mentioned earlier, state recognized programs are nationally accredited, and align their courses with the standards set forth by accrediting bodies such as CAEP and TEAC, it is not surprising that the percentage of content/instruction credits is so overwhelming high. Indeed, Wordle 1 and 2 (Figure 2 and 3), based on CAEP standards, clearly describes a disproportionate focus on teaching content and instructional strategies in teacher education programs, with a scant focus on teacher well-being, resilience, or personal growth and development. Therefore, the disproportionate focus on teaching future educators about content and instruction is not necessarily the fault of the university programs rather the accrediting bodies governing them. With an increase in teacher responsibilities, burnout, and attrition, it may be time for teacher education programs to evaluate the readiness of new teachers entering the classroom and demand more appropriate standards in which to better prepare them.

We content, if teachers are successfully prepared to handle the stressors of the profession before they enter the classroom, if they understand the importance of maintaining well-being,

ROOTED IN RESILIENCE

and if they are given the tools to protect personal and student well-being, they may be more effective in the classroom for the entirety of their career. A place to begin building an educational framework which supports teacher well-being may be through integrating new standards into a program's accrediting entity.

Finding Growth: Proposed Accreditation Standards and Supporting Domains

The following standard is suggested for adoption within all teacher education accreditation programs. We do not intend for these standards to be all-encompassing in terms of the components of well-being, rather we suggest the incorporation of the standards as a starting point for entities such as the CAEP or other similar accrediting organizations.

Table 2. Proposed Accreditation Standard

Accreditation Standard
<p>Standard 0. Development and Cultivation of Well-being The provider ensures that candidates develop a deep understanding of personal and organizational well-being and, through the completion of the program, candidates are able to utilize and integrate qualities of psychological safety, resilience, and self-care in order to promote well-being and prioritize personal development, as well as the social-emotional needs of both the candidate and their students.</p> <p>Provider responsibility</p> <ul style="list-style-type: none"> ● 0.1 The provider ensures opportunities for candidate development of personal and professional well-being knowledge and implementation ● 0.2 The provider will offer courses and resources centered on the science of well-being ● 0.3 The provider effectively models components of well-being <p>Knowledge base</p> <ul style="list-style-type: none"> ● 0.4 The candidate demonstrates content knowledge of the scientific, research-based components of well-being and its contribution to personal, student, and school success <p>Effective implementation</p> <ul style="list-style-type: none"> ● 0.5 The candidate is able to incorporate skills of well-being and embed knowledge of the science of well-being within instruction during clinical practice <p>Community culture</p> <ul style="list-style-type: none"> ● 0.6 The provider collaborates with local school districts to create clinical practice opportunities which allow for the development and application of well-being knowledges or strategies ● 0.7 The provider and candidate collectively work towards positive implementation of

well-being strategies and interventions within the school and classroom community

The following ten domains include concepts of the science of positive psychology that higher education institutions may use as a guide to create courses that fulfill the newly adopted Accreditation Standard 0. We do not intend for these domains to be all-encompassing rather are a starting point for the inclusion of science positive psychology within any education department. In addition, these standard domains may be incorporated within any course and within any college/university program of study as a means to embed concepts of well-being.

Table 3. Domains Supporting Proposed Standard 0 (Table 2)

Standard Domains				
<p>Connections Collaboration High Quality Connections Active-Constructive Response Reciprocity</p>	<p>Reflection Providing/receiving feedback Energy Effectiveness Gratitude ABC model</p>	<p>Emotional Recognition Positive/negative emotions Optimism/pessimism Explanatory Style Gratitude</p>	<p>Cognition Critical thinking Problem solving Metacognition Decision making</p>	<p>Narrative Character strengths Self-worth Values/morality Meaning Purpose Mattering</p>
<p>Self-awareness Self-regulation Prioritization Self-control Flow Self- Determination</p>	<p>Psychological Safety Trust Openness Agency</p>	<p>Resilience Protective factors Self-efficacy Thinking traps Goal planning</p>	<p>Vitality Sleep Exercise Diet Rejuvenation/renewal Creating boundaries</p>	<p>Mattering Mindset Compassion Recognition Accomplishment</p>

Why Are Preparation Programs the Place to Start?

Let's return to the seed analogy for a moment. A seed is inadequate without appropriate resources and environment. A seed cannot sprout without water. A sprout will not survive for long outside of nutrient-rich soil. A sapling needs continuous sunlight in order to metabolize

ROOTED IN RESILIENCE

correctly. The transition of a seed into a well-rooted tree is an arduous one, and one which must be adequately tended. When we ask teachers to support students' well-being, without providing them educational experiences on how to do so, we are asking a seed to sprout without water.

When we throw research at well-established teachers, suggesting that supporting students' social and emotional growth is important, we are expecting a sprout to live indefinitely out of the soil to which it calls home. Regardless of positive intentions, teachers who have not been explicitly taught the skills, or have implemented them in their personal lives, simply won't have the resources to sustain well-being practices with fidelity (Cobb & Mayer, 2000).

Therefore, we posit that the most foundational intervention to improve teacher well-being is to provide training, within pre-service teacher education programs, which build the skills to buffer and cope with professional stressors. Day and Gu (2014) argue that in order to improve the quality of teachers, and raise the standards for student achievement, a focus on "efforts to build, sustain, and renew teacher resilience is necessary and that these efforts must take place in initial teacher training" (p.22). Tait (2005) and Le Cornu (2008) concur--resilience of new teachers may be one of the most important qualities to ensure success in the classroom for both students and teachers, all the while reducing attrition and burnout rates. Indeed, a literature review by Acton and Glasgow (2015) which included thirty peer-reviewed articles, focused on teacher well-being and supported the prioritization and intentional instruction of improving teacher resilience skills in order to deepen well-being--particularly within initial teacher training programs.

Promoting personal development. But interestingly enough, there is a huge lack of support for teachers in terms of *personal* development. Educators rarely have the time or tools to reflect on their teaching, interactions with others, or current feelings and experiences (Hatton &

ROOTED IN RESILIENCE

Smith, 1995). *What can I do for myself? How can I better engage, navigate, and advocate for my own well-being?* are questions which teachers rarely have the time, or the understanding, to ask. Instead, school districts and teacher education programs jump straight to professional development, with a strong focus on the content which teachers should teach, and instructional strategies which best support that content. Educators are constantly asked to externalize their learning—teaching curriculum and content without first grappling with it themselves—with the expectation that something will grow (Hattie, 2009). It may be necessary to allow teachers time to experience and reflect on the skills of well-being and resilience. The complexities and personal nature of the content may be better explored over time and in a variety of educational contexts.

Utilizing an Appropriate Model for the Dissemination of Resilience

What, then, is preventing the dissemination of positive psychology within the educational realm? Currently, there are large-scale efforts to educate teachers and policy makers, specifically within the international community, on the importance of positive education (Adler & Seligman, 2016; Adler, 2009). There are grassroots efforts led by school districts and educators (Robinson & Aronica, 2016). But, unfortunately, positive education is not taking root, and students cannot learn the importance of mental well-being if educators lack recognition and understanding of the field. Despite this, we believe herein lies a seed of hope.

Well-being within education is missing the foundational understanding by its primary leaders—educators. In order for students to better promote resiliency factors, it may be important for their teachers to understand what resiliency factors are and how to promote them. For example, Gable, Reis, Impett, and Asher (2004) research the importance of capitalizing on positive events. Investigations of how to build upon positive emotions, an important aspect of

ROOTED IN RESILIENCE

resiliency, suggest that the skill of capitalizing on positive events is not necessarily inherent – people must work at, and continue to work at, building reciprocal sharing and listening skills. The research suggests that the more practice an individual has at responding to capitalization of a positive event, the more likely they are to respond in a way which allows the capitalizer to deepen well-being even further (Gable et al., 2004). In terms of a student-teacher relationship, this research suggests that the more that teachers practice capitalization themselves, the better their personal well-being may be, but it may also better their students' well-being through appropriate modeling of capitalization and active, engaging responses. Students may better learn how to capitalize on positive emotions, and promote well-being, if teachers personally understand and model how to do so.

Although changing the status quo of current teacher education programs to include a course on resilience may seem lofty or ambitious, large scale dissemination of resilience training has already been successfully implemented in the Master Resilience Training (MRT) in the United States Army. The purpose of MRT is to explicitly teach resiliency skills to non-commissioned soldiers in order to adapt to stressors associated with their job. To date, MRT is largest implementation of psychological interventions in the world, with over 1.1 million soldiers receiving resilience training (Reivich, Seligman, & McBride, 2011).

Dissemination, as described in the structure of the MRT, must begin with the leaders (Reivich et al., 2011). Indeed, Reivich et al. (2011) began training sergeants (NCOs) in the resiliency program with the intention they would then teach the skills to their reporting soldiers. This model is ideally structured for education—teachers are taught the skills of resilience. They can then appropriately model and explicitly teach techniques to their students.

ROOTED IN RESILIENCE

Therefore, the goal of incorporating a resiliency course within teacher education programs is to initially prepare educators to build personal and professional assets and boost resilience protective factors they may already possess, in order to protect them against the certain adversity of the profession for the entirety of their career. Teachers should possess as many positive protective skills as possible as they enter the profession instead of being left to flounder and find ways to support personal well-being, as well as student well-being in their first years in the career. Teachers who enter their careers personally capable of enduring and finding growth from adversity, can transition their focus more readily to students and providing the best instruction and social and emotional support possible within the classroom.

As Hargreaves and Fullan (2012, p.xii) argue “of all factors inside the school that affect children’s learning and achievement, the most important is the teacher - not standards, assessments, resources, or even the school’s leadership, but the quality of the teacher. Teachers really matter.” If teachers are the key to a thriving garden of young minds, then, as an educational community, we must begin to prioritize well-being in teacher education programs by building highly resilient educators, ones who lead their students and organizations towards a life of flourishing.

Digging Deeper: Courses and Lesson Plans for Program Success

To prioritize teacher well-being and build resilient teachers within education programs, we have created a possible course catalogue, with several potential courses a university or college may offer in order to fulfill the proposed national accreditation standard discussed above. The courses listed in Table 4 are examples of courses which may fulfill the newly adopted Accreditation Standard 0 (Table 2). We do not intend for these courses to be all-encompassing, but to simply provide a starting point for the inclusion of positive psychology within any

ROOTED IN RESILIENCE

educational department. These courses may be modified and incorporated within any college/university program of study.

Table 4. Proposed Courses to Fulfill Accreditation Standard 0 (Table 2)

Courses				
<p>Introduction to Positive Psychology Students will be exposed to the scientific literature of positive psychology and will leave having an understanding of what is well-being and how to cultivate it.</p>	<p>PERMA: What does it mean to flourish? Students will understand the individual components of PERMA and be able to identify both individuals and organizations who are flourishing and learn ways in which to increase the likelihood of flourishing for those that are not.</p>	<p>What is Positive Education? Holistic teaching for 21st century learning Students will investigate effective frameworks which build off of individual components of well-being in order to promote flourishing educational systems.</p>	<p>Rooted in Resilience: Understanding and applying resilience factors for educators Students will learn about the science of resilience, examine protective factors associated with the promotion of resilience and have the opportunity to apply new learnings to our personal and professional lives.</p>	<p>Mattering Minds: Deepening recognition and impact in education Students will examine the scientific research and literature of mattering, and high-quality connections while learning how to create a classroom community of giving, and connection.</p>
<p>Self-awareness and Recognition Students will have the opportunity to learn about self-awareness and participate in learning activities to practice enhancing their own self-awareness as a means to improve well-being.</p>	<p>Thinking about Thinking: Metacognition and decision making for well-being Students will be exposed to research centered on metacognition and decision-making with an educational lens. They will also have the opportunity to create classroom lessons based on this science.</p>	<p>Positive Communication Students will understand the importance of positive communication with both fellow teachers and students and will have an opportunity to review the latest literature in this area.</p>	<p>Flourishing Communities: Promoting Mental Health in Organizational Systems Students will investigate effective frameworks which build off of individual components of well-being in order to promote flourishing educational communities.</p>	<p>Teaching with Vitality: Using Positive Physical Habits to Live Well Students will understand how physical habits of well-being encourage physically and mentally healthy communities.</p>

Zooming-in: Example lessons to fulfill the course syllabus. Appendix A includes an example syllabus for the course listed in Table 4 as Rooted in Resilience which focuses on building resilient teachers. An important aspect of resilience is focusing on human strengths and potential in order to utilize positive assets in a time of need (Seligman, 2002). Seligman and Peterson (2004) have identified and classified 24 character strengths which may be nurtured and developed through practice. One of the first lessons identified in the syllabus is an initial focus on *self* and the signature strengths that each student taking the course may possess. Therefore, an example assignment listed for the course is completing the Values In Action - Inventory of

ROOTED IN RESILIENCE

Strengths (VIA-IS) survey. During class, students may discuss their results with others and form a strengths-based vocabulary to build off during the course.

Seligman and Peterson (2004) suggest that understanding and cultivating character strengths may be the foundation of human potential and the path toward a “psychological good life” (p.4). In order to arm teachers with tools and assets that lead to better psychological health and improve their resilience, learning about character strengths is appropriate. Research conducted by Hutchinson, Stuart, and Pretorius (2010) contend teaching individuals about character strengths may be essential to preventing psychological illness and fostering psychological wellness, which includes resilience in times of stress. Their research also suggests interventions in schools may be a place to teach and utilize the development of character strengths (Hutchinson et al., 2010). Therefore, we have also included several lessons based on promoting character strengths in Appendix B. The concepts taught within each lesson have been empirically studied and may be found in the books required for our course.

Remaining Rooted: Looking Toward the Future

What we have proposed in this paper requires a new framework and shift in focus for teacher education programs. Although ambitious students and school environments require teachers who are protected and nourished--they need seeds who stay well-rooted and thrive. A national accreditation standard, centered on the well-being of the teacher, may lead to institutional flourishing with positive impacts for students. Learning opportunities which arise from the adoption of a teacher well-being standard, may arm educators with the tools and resources to build resilience, despite the physically, emotionally, and psychologically taxing nature of the job.

ROOTED IN RESILIENCE

It is our hope that this paper may spark conversations and actions regarding the importance of teacher well-being and resilience. As Hargreaves and Fullan (2012) argue “of all factors inside the school that affect children’s learning and achievement, the most important is the teacher - not standards, assessments, resources, or even the school’s leadership, but the quality of the teacher. Teachers really matter.” (pp. *xii*). Because teachers matter, they should be prepared for the realities of teaching and supported in building personal resources. The foundation of personal and professional well-being may be rooted in teacher resilience. If teachers are key to a thriving garden of young minds, then, as an educational community, we must begin to prioritize well-being in teacher education programs--seeding teachers with resilient roots.

References

- Acton, R., & Glasgow, P. (2015). Teacher wellbeing in neoliberal contexts: A review of the literature. *Australian Journal of Teacher Education*, 40(8), 99-114.
- Adler, A. (2009). Gross national happiness in Bhutan: A living example of an alternative approach to progress. *Social Impact Research Experience (SIRE)*, 1.
- Adler, A., & Seligman, M. E. (2016). Using wellbeing for public policy: Theory, measurement, and recommendations. *International Journal of Wellbeing*, 6(1).
- Baker, J. A. (1999). Teacher-student interaction in urban at-risk classrooms: Differential behavior, relationship quality, and student satisfaction with school. *The Elementary School Journal*, 100(1), 57-70.
- Boe, E. E., Cook, L. H., & Sunderland, R. J. (2008). Teacher turnover: Examining exit attrition, teaching area transfer, and school migration. *Exceptional Children*, 75(1), 7-31.
- Boyd, D., Grossman, P., Lankford, H., Loeb, S., & Wyckoff, J. (2008). *Who leaves? Teacher*

ROOTED IN RESILIENCE

- attrition and student achievement* (No. w14022). National Bureau of Economic Research.
- Carson, R. L., Plemmons, S., Templin, T. J., Weiss, H. M., & Weiss, H. M. (2011). "You are who you are:" A mixed-method study of affectivity and emotional regulation in curbing teacher burnout. *Research on Stress and Coping in Education*, 6, 239-265.
- Chong, S., & Low, E. (2008). Why I want to teach and how I feel about teaching—formation of teacher identity from pre-service to the beginning teacher phase. *Educational Research Policy and Practice*, 8(1), 59–72.
- Cobb, C. D. & Mayer, J. D. (2000). Emotional intelligence: What research says. *Educational Leadership*, 58(3), 14-18.
- Danielson, C. (2011). *Enhancing professional practice: A framework for teaching*. ASCD.
- Day, C., & Gu, Q. (2014). *Resilient teachers, resilient schools: Building and sustaining quality in testing times*. New York: Routledge.
- Day, C., & Gu, Q. (2009). Veteran teachers: Commitment, resilience and quality retention. *Teachers and Teaching: Theory and Practice*, 15(4), 441-457.
- Dicke, T., Parker, P. D., Holzberger, D., Kunina-Habenicht, O., Kunter, M., & Leutner, D. (2015). Beginning teachers' efficacy and emotional exhaustion: Latent changes, reciprocity, and the influence of professional knowledge. *Contemporary Educational Psychology*, 41, 62-72.
- Dunn, L. B., Iglewicz, A., & Moutier, C. (2008). A conceptual model of medical student well-being: promoting resilience and preventing burnout. *Academic Psychiatry*, 32(1), 44-53.
- Farber, B. A. (1991). *Crisis in education: Stress and burnout in the American teacher*. San Francisco: Jossey-Bass.

ROOTED IN RESILIENCE

Feinberg, J. (2014). How do I make one word bigger than another? *Wordle: Frequently Asked Questions*. Retrieved from <http://www.wordle.net/faq#pdf>

Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science, 13*(2), 172-175.

Gable, S. L., Reis, H. T., Impett, E. A., & Asher, E. R. (2004). What do you do when things go right? The intrapersonal and interpersonal benefits of sharing positive events. *Journal of Personality and Social Psychology, 87*(2), 228.

Gillham, J. E., Abenavoli, R. M., Brunwasser, S. M., Linkins, M., Reivich, K. J., & Seligman, M. E. P. (2013). Resilience education. In S. A. David, I. Boniwell, & A. C. Ayers (Eds.), *Oxford handbook of happiness*, (pp. 609-630). New York, NY: Oxford University Press, Inc.

Guin, K. (2004). Chronic teacher turnover in urban elementary schools. *Educational Evaluation and Policy Analysis, 12*(42), 1-25.

Hamilton, S. F., & Hamilton, M. A. (2009). The transition to adulthood: Challenges of poverty and structural lag. *Handbook of Adolescent Psychology, 2*.

Hargreaves, A. & Fullan, M. (2012). *Professional capital: Transforming teaching in every school*. New York, NY: Teacher College Press.

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. New York: Routledge.

Hatton, N., & Smith, D. (1995). Reflection in teacher education: Towards definition and implementation. *Teaching and Teacher Education, 11*(1), 33-49.

Herman, K. C., Hickmon-Rosa, J. E., & Reinke, W. M. (2018). Empirically derived profiles of teacher stress, burnout, self-efficacy, and coping and associated student outcomes.

ROOTED IN RESILIENCE

- Journal of Positive Behavior Interventions*, 20(2), 90-100.
- Hord, S., & Huling-Austin, L. (1986). Effective Curriculum Implementation: Some Promising New Insights. *The Elementary School Journal*, 87(1), 97-115.
- Howard, S., & Johnson, B. (2004). Resilient teachers: resisting stress and burnout. *Social Psychology of Education*, 7(4), 399–420.
- Hutchinson, A. M. K., Stuart, A. D., & Pretorius, H. G. (2010). Biological contributions to well-being: The relationships amongst temperament, character strengths and resilience. *SA Journal of Industrial Psychology*, 36(2), 1-10.
- Idaho Department of Education. (2018). Initial certification for Idaho graduates. Retrieved from: <http://www.sde.idaho.gov/cert-psc/cert/apply/graduates.html>
- Insel, T. (2008). Assessing the economic costs of serious mental illness. *The American Journal of Psychiatry*, 165(6), 663–665.
- Jeffries, V., Johnston, B., Nichols, L., Oliner, S., Tiryakian, E., & Weinstein, J. (2005). Altruism and social solidarity: Envisioning a field of specialization. *The American Sociologist*, 37(3), 67–83.
- Jennings, P.A. & Greenberg, M.T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research*, 79(1), 491-525.
- Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology*, 20, 178–187.
- Klusmann, U., Richter, D., & Lüdtke, O. (2016). Teachers' emotional exhaustion is negatively

ROOTED IN RESILIENCE

- related to students' achievement: Evidence from a large-scale assessment study. *Journal of Educational Psychology*, 108(8), 1193-1203.
- Knapp, M., McDaid, D., & Parsonage, M. (2011). *Mental health promotion and mental illness prevention: The economic case*. London: Department of Health.
- Koth, C. W., Bradshaw, C. P., & Leaf, P. J. (2009). Teacher observation of classroom adaptation—checklist: Development and factor structure. *Measurement and evaluation in counseling and development*, 42(1), 15-30.
- Lassen, S. R., Steele, M. M., & Sailor, W. (2006). The relationship of school-wide positive behavior support to academic achievement in an urban middle school. *Psychology in the Schools*, 43(6), 701-712.
- Le Cornu, R. (2013). Building early career teacher resilience: The role of relationships. *Australian Journal of Teacher Education (Online)*, 38(4), 1.
- Le Cornu, R. (2009). Building resilience in pre-service teachers. *Teaching and Teacher Education*, 25(5), 717-723.
- Loughran, J. J. (2002). Effective reflective practice: In search of meaning in learning about teaching. *Journal of Teacher Education*, 53(1), 33-43.
- Mak, W. W., Ng, I. S., & Wong, C. C. (2011). Resilience: enhancing well-being through the positive cognitive triad. *Journal of Counseling Psychology*, 58(4), 610-617.
- Mahijos, M., & Maxson, M. (1995). Capturing preservice teachers' beliefs about schooling, life, and childhood. *Journal of Teacher Education*, 46(3), 192-199.
- Mansfield, C. F., Beltman, S., Broadley, T., & Weatherby-Fell, N. (2016). Building resilience in teacher education: An evidence informed framework. *Teaching and Teacher Education*, 54, 77-87.

ROOTED IN RESILIENCE

- Marzano, R. J., & Toth, M. D. (2013). *Teacher evaluation that makes a difference: A new model for teacher growth and student achievement*. ASCD.
- Maslach, C., & Leiter, M. P. (1999). Teacher burnout: A research agenda. In R. Vandenberghe & M. A. Huberman (Eds.), *Understanding and preventing teacher burnout: A sourcebook of international research and practice* (pp. 295-303). Cambridge, UK: Cambridge University Press.
- Maslach, C., Jackson, S., & Leiter, M. (1996). Burnout inventory manual. *Palo Alto, CA: Consulting Psychologists*.
- Masten, A. S., Cutuli, J. J., Herbers, J. E., & Reed, M. J. (2009). Resilience in development. In S. J. Lopez & C. R. Snyder (Eds.), *Oxford handbook of positive psychology* (pp. 117-131). New York, NY: Oxford University Press, Inc.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist, 56*(3), 227-238.
- McCann, T. M. & Johannessen, L.R. (2004). Why do new teachers cry? *The Clearing House, 77*(4), 138-145.
- McCrone, P., Dhanasiri, S., Patel, A., Knapp, M., & Lawton--Smith, S. (2008). *Paying the Price*. London: King's Fund.
- Michigan Department of Education. (2018). How can I become a teacher in Michigan? Retrieved from: https://www.michigan.gov/documents/mde/Becoming_a_Michigan_Teacher_605459_7.pdf
- Newman, F., Smith, B., Allensworth, E., & Bryk, A.S. (2001). School instructional program coherence: Benefits and challenges. Chicago, IL: Consortium on Chicago School Research.

ROOTED IN RESILIENCE

- Norrish, J. M., Williams, P., O'Connor, M., & Robinson, J. (2013). An applied framework for positive education. *International Journal of Wellbeing*, 3(2), 147-161.
- Papastylianou, A., Kaila, M., & Polychronopoulos, M. (2009). Teachers' burnout, depression, role ambiguity and conflict. *Social Psychology Education*, 12, 295-314.
- Patrick, B. C., Hisley, J., & Kempler, T. (2000). "What's everybody so excited about?": The effects of teacher enthusiasm on student intrinsic motivation and vitality. *The Journal of Experimental Education*, 68(3), 217-236.
- Peterson, Christopher, and Martin EP Seligman. *Character strengths and virtues: A handbook and classification*. Vol. 1. Oxford University Press, 2004.
- Pillay, H., Goddard, R., & Wilss, L. (2005). Well-being, burnout and competence: Implications for teachers. *Australian Journal of Teacher Education*, 30(2), 22-33.
- Reivich, K. & Saltzberg, J. (2018) Positive psychology and individuals lecture. Sunday, Feb 11, 2018.
- Reivich, K. J., Seligman, M. E., & McBride, S. (2011). Master resilience training in the US Army. *American Psychologist*, 66(1), 25-34.
- Robinson, K., & Aronica, L. (2016). *Creative Schools: The grassroots revolution that's transforming education*. Penguin Books.
- Seligman, M. E. (2011). Flourish: a visionary new understanding of happiness and well-being. *Policy*, 27(3), 60-1.
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychological Association*, 55(1), 5-14.
- Seligman, M. E., Ernst, R. M., Gillham, J., Reivich, K., & Linkins, M. (2009). Positive education: Positive psychology and classroom interventions. *Oxford Review of*

ROOTED IN RESILIENCE

- Education*, 35(3), 293-311.
- Seligman, E. P., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, 60(5), 410-421.
- Southwick, S. M., & Charney, D. S. (2012). *Resilience: The science of mastering life's greatest challenges*. New York, NY: Cambridge University Press.
- Spilt, J. L., Koomen, H. M., & Thijs, J. T. (2011). Teacher wellbeing: The importance of teacher–student relationships. *Educational Psychology Review*, 23(4), 457-477.
- Tait, M. (2005). Resilience and new teacher success. *Education Today*, 17(3), 12-13.
- Talbert-Johnson, C. (2006). Preparing highly qualified teacher candidates for urban schools: The importance of dispositions. *Education and Urban Society*, 39(1), 147-160.
- Teacher Education Accreditation Council. (2014). TEAC accreditation. Retrieved from: <http://www.teac.org/accreditation/>
- Werner-Seidler, A., Perry, Y., Calcar, A. L., Newby, J. M., & Christensen, H. (2017). School-based depression and anxiety prevention programs for young people: A systematic review and meta-analysis. *Clinical Psychology Review*, 51, 30-47.
- Wisniewski, L., & Gargiulo, R. M. (1997). Occupational stress and burnout among special educators: A review of the literature. *The Journal of Special Education*, 31(3), 325-346.
- Wright, T. A., & Cropanzano, R. (1998). Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology*, 83(3), 486-493.
- Zautra, A. J., Arewasikporn, A., & Davis, M. C. (2010). Resilience: Promoting well-being through recovery, sustainability, and growth. *Research in Human Development*, 7(3), 221-238.

Appendix A

Proposed Course Syllabus

Rooted in Resilience: Understanding and Applying Resilience Factors for Educators

EDU 200 (4 credit hours)

Fall Semester 2018

Lecturers: Jessie Spurgeon and Lauren Thompson
 Email: matteringminds@gmail.com
 Course information: Wednesdays, 6:00pm- 9:00pm

General Information or Course Description:

Kids and seeds have a common need to sprout and thrive. If we want the healthiest trees, we need the best botanists to tend to them. If we want the happiest kids, we need the highest qualified educators to support their growth from a seed to a mature tree. It begins with an educator's seed and how they implement resiliency skills and techniques. Kids and adults need to learn, practice and continually build resiliency skills (Masten, Cutuli, Herbers, & Reed, 2009; Southwick & Charney, 2012). This course will provide education students with such an opportunity. We will learn about the science of resilience, examine protective factors associated with the promotion of resilience and have the opportunity to apply new learnings to our personal and professional lives. The course's overall goal is to build the resilient assets of education students in hopes to better prepare them for the realities of teaching, improve their wellness as teachers, and increase their longevity within the education system.

Course Objectives:

- Students will have an understanding of how resilience is defined through reading contemporary resilience research.
- Students will be able to describe characteristics of a resilient teacher and the impact resilient teachers have on students, schools and their longevity within the field of education.
- Students will be exposed to several dimensions of personal and professional well-being and have the opportunity to implement these dimensions within their daily lives.
- Students will reflect on and articulate resilience/well-being application exercises.

Class Expectations:

- Advocate for your own learning--if you have questions or concerns, reach out to the instructors immediately :)
- Bring a growth mindset--come to class with an open mind and a willingness to flexibly understand others' point of view
- Assume the best and be your best--in all interactions with classmates and instructors, assume that everyone is doing their best, including yourself

Required Course Materials:

Books:

Reivich, K., & Shatté, A. (2002). *The resilience factor: 7 essential skills for overcoming life's inevitable obstacles*. New York: Random House.

Southwick, S., & Charney, D. (2018). *Resilience: The science of mastering life's greatest challenges*. New York: Cambridge University Press.

ROOTED IN RESILIENCE

Course Schedule and Assignments:

- Please come to class prepared to discuss the required readings listed for the week.
- Readings should be completed in the listed chronological order for each week. We have intended for the content to continue to build off what came before, even within a given week.
- Articles which are listed as a required reading will be provided to students on Canvas.

Wk #	Topic and Description	Required Readings (prior to class)	Assignments (post-class)
1	<p>Introduction to EDU 200</p> <p>Welcome - class introductions and review course syllabus</p> <p>Prefacing the midterm and final - planning ahead</p> <p>Introduction to the role resilience plays in positive psychology</p>	<ol style="list-style-type: none"> 1. Watch “The Science of Character” video (~8 minutes) at https://www.viacharacter.org/www/Character-Strengths 2. Please create an account at https://www.viacharacter.org/survey/account/register and take the VIA Character Strengths Survey. You will need your results for the first class. <p>OPTIONAL: Article - Peterson, C., & Seligman, M. E. (2004). Introduction to “a manual of sanities.” In C. Peterson & M. E. Seligman (Eds.), <i>Character strengths and virtues: A handbook and classification</i>. Washington, DC: Oxford University Press.</p>	Learning Lab 1 Due 09/11/18
2	<p>Defining Resilience</p> <p>Explore and discuss what it means to be resilient</p> <p>Describe what resilience looks like, sounds like, and feels like</p>	<ol style="list-style-type: none"> 1. Book - Southwick & Charney (2018): pp. 1-9 & 13-20 2. Book - Reivich & Shatté (2002): pp. 1-12 3. Article - Gillham, J. E., Abenavoli, R. M., Brunwasser, S. M., Linkins, M., Reivich, K. J., & Seligman, M. E. (2013). Resilience education. In <i>Oxford Handbook of Happiness</i>. 	Learning Lab 2 Due 09/18/18
3	<p>Measuring Resilience: Big “A” versus Little “a”</p> <p>Assess personal levels of resilience using a</p>	<ol style="list-style-type: none"> 1. Article- McCallum, F., & Price, D. (2010). Well teachers, well students. <i>The Journal of Student Wellbeing</i>, 4(1), 19-34. 2. Book - Reivich & Shatté 	Learning Lab 3 Due 09/25/18

ROOTED IN RESILIENCE

	<p>research-based measure</p> <p>Understand the differences between high trauma adversity and everyday hurdles</p>	<p>(2002): pp. 31-47</p> <p>**Please make sure you have completed the RQ measure (pp. 34-36), in addition to reading this section**</p>	
4	<p>Protective Factors</p> <p>Define and identify protective factors which buffer against adversity</p>	<ol style="list-style-type: none"> 1. Book - Reivich & Shatté (2002): pp. 31-47 2. Article - Masten, A. S., Cutuli, J. J., Herbers, J. E., & Reed, M. J. (2009). Resilience in development. In S. J. Lopez & C. R. Snyder (Eds.), <i>Oxford handbook of positive psychology</i> (pp. 117-131). New York, NY: Oxford University Press, Inc. 	<p>Learning Lab 4</p> <p>Due 10/02/18</p>
5	<p>Optimism</p> <p>Explore the concept of optimism and how differing explanatory styles may promote or hinder well-being</p>	<ol style="list-style-type: none"> 1. Book - Southwick & Charney (2018): pp. 25-45 2. Article - Peterson, C., & Steen, T. A. (2002). Optimistic explanatory style. <i>Handbook of Positive Psychology</i>, 244-256 3. Article - Duckworth, A. L., Quinn, P. D., & Seligman, M. E. (2009). Positive predictors of teacher effectiveness. <i>The Journal of Positive Psychology</i>, 4(6), 540-547. 	<p>Learning Lab 5</p> <p>Due 10/09/18</p>
6	<p>High Quality Connections (HQC)</p> <p>Understand the essential components of HQCs and the importance of integrating HQCs both personal and professional</p>	<ol style="list-style-type: none"> 1. Article - Stephens, J. P., Heaphy, E., & Dutton, J. E. (2011). High quality connections. <i>The Oxford handbook of positive organizational scholarship</i>, 385-399. 2. Book - Southwick & Charney (2018): pp. 100-114 	<p>Learning Lab 6</p> <p>Due 10/16/18</p>
7	<p>Building Connections with Students, Teachers, & Community</p>	<ol style="list-style-type: none"> 1. Article - Spilt, J. L., Koomen, H. M., & Thijs, J. T. (2011). Teacher wellbeing: The importance of teacher–student 	<p>Learning Lab 7</p> <p>Due 10/23/18</p>

ROOTED IN RESILIENCE

	<p>Recognize the impact that relationships may have on resiliency</p> <p>Identify effective strategies which could be used to deepen connections with students, teachers, and leadership</p>	<p>relationships. <i>Educational Psychology Review</i>, 23(4), 457-477.</p> <p>2. Article - Davis, H. A. (2003). Conceptualizing the role and influence of student-teacher relationships on children's social and cognitive development. <i>Educational psychologist</i>, 38(4), 207-234.</p>	
8	<p>Active-Constructive Responding (ACR)</p> <p>Understand the importance of integrating the effective and research-based communication strategy of ACR</p>	<p>1. Article - Gable, S. L., Gonzaga, G. C., & Strachman, A. (2006). Will you be there for me when things go right? Supportive responses to positive event disclosures. <i>Journal of Personality and Social Psychology</i>, 91(5), 904-917.</p> <p>2. Article - Gable, S. L., Reis, H. T., Impett, E. A., & Asher, E. R. (2004). What do you do when things go right? The intrapersonal and interpersonal benefits of sharing positive events. <i>Journal of personality and social psychology</i>, 87(2), 228-245.</p>	<p>Learning Lab 8 Due 10/30/18</p>
9	<p>ABCs</p>	<p>1. Book - Reivich & Shatté (2002): pp. 65-94</p> <p>2. Article - Neenan, M. (2008). From cognitive behaviour therapy (CBT) to cognitive behaviour coaching (CBC). <i>Journal of Rational-Emotive & Cognitive-Behavior Therapy</i>, 26(1), 3-15. -- Read pp.5-7</p>	<p>Learning Lab 9 Due 11/06/18</p>

ROOTED IN RESILIENCE

10	Thinking Traps	<ol style="list-style-type: none"> Book - Reivich & Shatté (2002): pp. 95-122 Article - Reivich, K. J., Seligman, M. E., & McBride, S. (2011). Master resilience training in the US Army. <i>American Psychologist</i>, 66(1), 25.-- Read pp. 27-29 	Learning Lab 10 Due 11/13/18
11	MID-TERM Case Study: Identifying Resilience Factors in Others	In preparation for your mid-term, review past articles which might assist you in identifying resilience factors in your “case study.”	
12	Real Time Resiliency: Using Flexible Thinking	<ol style="list-style-type: none"> Book - Reivich & Shatté (2002): pp. 186-214 Book - Southwick & Charney (2018): pp. 165-183 	Learning Lab 11 Due 11/27/18
13	Vitality: Forming Physical Resilience	<ol style="list-style-type: none"> Article: Ratey, J. J., & Loehr, J. E. (2011). The positive impact of physical activity on cognition during adulthood: a review of underlying mechanisms, evidence and recommendations. <i>Reviews in the Neurosciences</i>, 22(2), 171-185. Article: Sattelmair, J., & Ratey, J. J. (2009). Physically Active Play and Cognition: An Academic Matter?. <i>American journal of play</i>, 1(3), 365-374. 	Learning Lab 12 Due 12/04/18
14	Impact of Resilient Teachers on Student Outcomes	<ol style="list-style-type: none"> Article: Howard, S., & Johnson, B. (2004). Resilient teachers: Resisting stress and burnout. <i>Social Psychology of Education</i>, 7(4), 399-420. Article: Le Cornu, R. (2013). Building early career teacher resilience: The role of relationships <i>Australian</i> 	Learning Lab 13 Due 12/11/18

ROOTED IN RESILIENCE

		<p><i>Journal of Teacher Education (Online)</i>, 38(4), 1.</p> <p>3. Article: Herman, K. C., Hickmon-Rosa, J. E., & Reinke, W. M. (2018). Empirically derived profiles of teacher stress, burnout, self-efficacy, and coping and associated student outcomes. <i>Journal of Positive Behavior Interventions</i>, 20(2), 90-100</p>	
15	Resiliency Portfolios Present resiliency portfolios and final reflections - what is going to “stick?”	1. Book - Southwick & Charney (2018): pp. 198-214	Final Exam

Evaluation of Learning:

Please refrain from beginning weekly assignments until after the weekly class meeting. It is our hope that you will reflect upon and integrate what is discussed in class as part of your learning outcome and completed assignments.

Participation

Student participation is essential to the learning of all classmates and helps generate great dialogue and debate within the classroom. While participation will not be graded, we expect that each student comes prepared with all the required readings completed prior to class. Please arrive on time and share your complete presence while there. Because all assignments depend on classmate discussion or collaboration, please complete all assignments on time and to the best of your ability. If you are unable to attend a class, or submit an assignment on time, please email all instructors immediately!

Learning Labs (13) - (50% of final grade)

Each week, following the scheduled class time, students will post a reflection on the class discussion board providing their best thoughts and reactions to the required readings, the material presented during the lecture, and discussion during the class session. These learning lab discussion posts are due the day prior to the next class. In addition to writing their own post, students are required to respond to the posts of three classmates.

MIDTERM - Case Study: Identifying Resilience Factors in Others - (25% of final grade)

For this midterm assignment, you will gain consent from a close friend or family member to be their homework partner for this assignment. After selecting a homework partner ask them to describe a stressful event, time period, and moment of adversity they have endured. While they describe the event or time period seek to identify the resilience protective factors your homework partner used or displayed in order to demonstrate their resilience. Following the homework

ROOTED IN RESILIENCE

partner session write a two to three-page paper describing the experience, the identified resilience protective factors, and be prepared to discuss your case study with your classmates. Please do not use your homework partner's name or any identifying comments within your paper. Homework partners should remain anonymous.

FINAL - Resilience Portfolios: Culmination of Personal Resilience Philosophy (25% of final grade)

The resilience portfolio will be a culmination of the content from this semester. Using your reflections from the weekly learning labs, create a personal philosophy of resilience. *What does resilience look like in your personal life? What does it look like in your professional life? How do the two philosophies overlap or differ?* Your portfolio must include two components: a visual representation of your philosophy, and a well-written 2-3-page paper, which includes a clearly articulated resilience philosophy. Be as creative as you would like with your visual representation (collage, PowerPoint, skit, infographic, model, short video, etc.), with the understanding that whatever you produce, must embody your personal philosophy. A personal philosophy typically focuses more on beliefs and values, and less on experiences and biographical data. We are not looking for you to write a goal such as "I will actively and constructively respond to my partner 80% of the time. Your personal philosophy will explicitly describe your plan to build and support components of resilience in your life. Your final 2-3-page paper is the explanation of how and why you created your visual representation, and must include a concrete, well-written statement of your resilience philosophy. The paper needs to include at least 5 references from the readings this semester, and should be written in appropriate APA format.

Grading Scale:

A	94%- 100%	B+	87%-89%	B-	80%-82%	C	73%-76%	D+	67%-69%
A-	90%- 93%	B	83%- 86%	C+	77%-79%	C-	70%-72%	D	63%-66%
D-	60%-62%	Fail	Below 60%						

Academic Honesty:

We value and prioritize personal integrity. It is the expectation of this institution and for this class that all students abide by the school academic honor code. If you have questions or need resources regarding plagiarism please feel free to contact us.

Disability Accommodations:

We are committed to providing an accessible academic experience for all students. If you are in need of specific accommodations please notify us as soon as possible so the proper lesson, assignment or environment modifications are made.

Appendix B

Possible Lesson Plans for Resiliency Course

Lesson Plan A- VIA Character Strengths

ROOTED IN RESILIENCE

VIA Character Strengths Survey	
DESIRED RESULTS	
GOAL/OBJECTIVE: <ul style="list-style-type: none"> Identify core character strengths and the importance of understanding and exemplifying those strengths 	
UNDERSTANDING: <ul style="list-style-type: none"> Discuss importance of highlighting strengths of character Evaluate personal character strengths 	ESSENTIAL QUESTIONS: <ul style="list-style-type: none"> What are signature strengths? Why are signature strengths important? How does a strengths-based model promote well-being in individuals and institutions?
EVIDENCE	
PERFORMANCE TASK: <ul style="list-style-type: none"> VIA Character Strengths Survey Results VIA Character Strengths Reflection Worksheet 	OTHER:
LEARNING PLAN	
TIMEFRAME: <ul style="list-style-type: none"> Independent, pre-lesson work: 45-60 minutes Lesson: 60-90 minutes 	MATERIALS/RESOURCES: <ul style="list-style-type: none"> Book: <i>Character Strengths and Virtues: A Handbook and Classification</i> (Peterson & Seligman, 2004) <ul style="list-style-type: none"> Chapter 1 - "Introduction to a 'Manual of Sanities'" (pp. 3-32) Book: <i>Character Strengths Interventions: A Field Guide for Practitioners</i> (Niemiec, 2017) <ul style="list-style-type: none"> Snapshot 1.1 - "What Are Character Strengths?" (pp. 2) Chapter 2 - "Signature Strengths: Research and Practice" (pp.22-45) Website: VIA Institute on Character Website: http://www.viacharacter.org/ Website: VIA What Research Says About Character Strengths http://www.viacharacter.org/www/Research/Research-Findings Resources: VIA Character Strengths Reflection Worksheet

ROOTED IN RESILIENCE

<p>DESCRIPTION:</p> <p>Independent, pre-lesson work:</p> <ol style="list-style-type: none"> 1. Read "Introduction to a 'Manual of Sanities'" (Peterson & Seligman, 2004) and pages 22-24 of "Signature Strengths: Research and Practice" (Niemiec, 2017) <ol style="list-style-type: none"> 1. How, when, and where might it be useful to highlight strengths and virtues within a school context? 2. Take the VIA Survey, an assessment of signature strengths, on the VIA Institute on Character Website <ol style="list-style-type: none"> 1. https://www.viacharacter.org/survey/account/register <p>**You must register to take the assessment, but the registration and results are free**</p> <ol style="list-style-type: none"> 1. Write down the following results <ol style="list-style-type: none"> 1. Top 5 character strengths 2. Lowest scoring character signature strengths 2. Complete the VIA Character Strengths Reflection sheet, but do not share your top 5 character strengths with your peers until the next module. <p>Lesson:</p> <ol style="list-style-type: none"> 1. Begin with an overview of what research describes as being the importance of signature strengths. <ol style="list-style-type: none"> 1. What would be a better way to remediate well-being - focusing on boosting strengths or fixing weaknesses? Where is our primary time spent as educators? <ol style="list-style-type: none"> 1. Brainstorm ideas on chart paper 2. Read pages 28-45 of "Signature Strengths: Research and Practice" (Niemiec, 2017) <ol style="list-style-type: none"> 1. How would Niemiec, Peterson, and Seligman argue the question of remediating well-being? Would they emphasize the promotion of strengths or the bettering of weaknesses? 3. Finally, go to VIA What Research Says About Character website <ol style="list-style-type: none"> 1. http://www.viacharacter.org/www/Research/Research-Findings 2. Select an article that sounds relevant and interesting to read, research, and share with other group members at the next meeting. 	
REFLECTION	
<p>FURTHER INQUIRY:</p> <ul style="list-style-type: none"> ● Using the VIA account created for the VIA Survey, purchase the VIA PRO package <ul style="list-style-type: none"> ○ Explore each signature strength in detail - including its overuse and underuse 	<p>EXTENSION:</p> <ul style="list-style-type: none"> ● Heightening awareness to character strengths through a mindfulness practice
<p>REFERENCES:</p> <p>Niemiec, R. M. (2017). <i>Character strengths interventions: A field guide for practitioners</i>. Boston: Hogrefe Publishing.</p> <p>Peterson, C. & Seligman, M. E. P. (2004). <i>Character strengths and virtues: A handbook and classification</i>. Oxford: University Press.</p>	

Lesson Plan B- Reflected Best-Self

Reflected Best-Self Exercise	
DESIRED RESULTS	
<p>GOAL/OBJECTIVE:</p> <ul style="list-style-type: none"> ● Analyze how others positively perceive you through feedback based on reflections of your contributed best-self 	
<p>UNDERSTANDING:</p> <ul style="list-style-type: none"> ● Identify times when you are at your best ● Create a personal narrative of how others view you at your best 	<p>ESSENTIAL QUESTIONS:</p> <ul style="list-style-type: none"> ● How/when do others see me at my best? ● How can I consistently be at my best in the workplace? What situations exemplify your signature strengths? ● What tools and people can I turn to in times of discouragement to help me move past difficulties?
EVIDENCE	

ROOTED IN RESILIENCE

<p>PERFORMANCE TASK:</p> <ul style="list-style-type: none"> ● Create a Best-Self Portfolio ○ Collection and compilation of feedback 	<p>OTHER:</p> <ul style="list-style-type: none"> ● Compare the results of the VIA Survey and Character Strengths 360° to your Reflected Best-Self Portfolio
LEARNING PLAN	
<p>TIMEFRAME:</p> <ul style="list-style-type: none"> ● Independent, pre-lesson work: 60-90 minutes <ul style="list-style-type: none"> ○ Activity requires time for others to adequately reflect and respond! ● Lesson: 60-90 minutes <ul style="list-style-type: none"> ○ Whole group 	<p>MATERIALS/RESOURCES:</p> <ul style="list-style-type: none"> ● Article: "Reflected Best Self Exercise: Assignment and Instructions to Participants" (Quinn, Dutton, & Spreitzer, 2003) ○ Retrieved from https://blogs.owen.vanderbilt.edu/owen-all-ldp/wp-content/uploads/sites/101/2016/03/RBS_Exercise.pdf
<p>DESCRIPTION:</p> <p>Independent, pre-lesson work:</p> <ol style="list-style-type: none"> 1. Review collected VIA Survey and Character Strengths 360° results and post somewhere participants can easily access 2. What impact have the recognition of strengths in others and strengths in yourself affected your well-being? 3. Read page 2 in the article "Reflected Best Self Exercise: Assignment and Instructions to Participants" (Quinn, Dutton, & Spreitzer, 2003) <ol style="list-style-type: none"> 1. How do the goals/themes of this intervention relate to those of the VIA Survey and Character Strengths 360°? How do these interventions differ? 4. Read directions on pages 3-5 of the article "Reflected Best Self Exercise: Assignment and Instructions to Participants" (Quinn, Dutton, & Spreitzer, 2003) <ol style="list-style-type: none"> 1. Follow steps 1-4 described in the directions <ol style="list-style-type: none"> 1. Identified respondents may be similar to, or different from, the participants who completed the Character Strengths 360° inventory 5. Bring your best-self portfolio to the next meeting with raw feedback <p>Lesson:</p> <ol style="list-style-type: none"> 1. Discuss results of the Reflected Best-Self Portrait <ol style="list-style-type: none"> 1. Where the results surprising? 2. Share your insights <ol style="list-style-type: none"> 1. How do the goals/themes of this intervention relate to those of the VIA Survey and Character Strengths 360°? How do these interventions differ? 3. Invite participants to share their Best-Self Portrait in pairs, comparing and contrasting strengths found and posted for the VIA and 360°. 	
REFLECTION	
<p>FURTHER INQUIRY:</p> <ul style="list-style-type: none"> ● Article: "Composing the Reflected Best-Self Portrait: Building Pathways for Becoming Extraordinary in Work Organizations" (Dutton, Spreitzer, Heaphy, & Quinn, 2005) 	<p>EXTENSION:</p> <ul style="list-style-type: none"> ● For additional research articles related to best-self practices within an organization: <ul style="list-style-type: none"> ○ http://positiveorgs.bus.umich.edu/cpo-tools/rbse/
<p>REFERENCES:</p> <p>Quinn, R. E., Dutton, J. E., & Spreitzer, G. M. (2003). Reflected best self-exercise: Assignment and instructions to participants. <i>Center for Positive Organizational Scholarship, Ross School of Business, University of Michigan. Product B, 1.</i></p>	

Appendix C

Process of Examining the Standards Using Wordle

The language included in the wordle are based on the following 5 standard categories. The content of each standard is represented in Appendix D.

Standard 1. Content and Pedagogical Knowledge
 Standard 2. Clinical Partnerships and Practice
 Standard 3. Candidate Quality, Recruitment, and Selectivity
 Standard 4. Program Impact
 Standard 5. Program Quality Assurance and Continuous Improvement

A wordle is a visual which represents more repetitious verbiage as larger than words or phrases which are used less often. For instance, if a standard had the word mathematics listed 3 times, and the word science listed once, the word science would appear as 1/3 of the size of mathematics in the Wordle (Feinberg, 2014).

Using only Wordle as a representation of the priorities of CAEP's standards for teacher education may be slightly misrepresentative of the content as a whole. Understandably, taking single words out of the context of a sentence, or out of the the context of a whole standard, in this case, most likely devalues the content of the language and most likely omits meaning. Similarly, Wordles do not account for stemming, meaning that words which share the same root or stem, but differ in prefixes or suffixes, will not be considered the same (Feinberg, 2014).

Taking the inability of Wordle to stem words into account, and to most accurately represent the themes contained within the 5 standards, we made modifications to the verbiage as noted in Appendix E. To simplify the variation of similarly rooted words, but also prevent changes in the connotation of a word, we converted all plural words to singular form, and all past and future tense verbs to present tense. Examples are provided in Appendix E, along with the words which were omitted from Wordle 1, as well as the final verbiage which was inputted into the Wordle platform.

Wordle 2 zooms in on more of *what* and *how* the programs teach, but accounts for the *who*. We did this by further editing the standards from the language used in Wordle 1. Using the same verbiage, we accounted for the provider, candidate, and student, and a few other seemingly unnecessary words, as described in Appendix F, in order to better visualize the themes of the standards.

Appendix D

Council for the Accreditation of Teacher Educator Preparation (CAEP) Standards

The following standard areas and verbiage were used in the Wordle visuals to examine the prioritized educational themes.

Standard 1. Content and Pedagogical Knowledge

The provider ensures that candidates develop a deep understanding of the critical concepts and principles of their discipline and, by completion, are able to use discipline-specific practices flexibly to advance the learning of all students toward attainment of college- and career-readiness standards.

Standard 2. Clinical Partnerships and Practice

The provider ensures that effective partnerships and high-quality clinical practice are central to preparation so that candidates develop the knowledge, skills, and professional dispositions necessary to demonstrate positive impact on all P-12 students' learning and development.

Standard 3. Candidate Quality, Recruitment, and Selectivity

The provider demonstrates that the quality of candidates is a continuing and purposeful part of its responsibility from recruitment, at admission, through the progression of courses and clinical experiences, and to decisions that completers are prepared to teach effectively and are recommended for certification. The provider demonstrates that development of candidate quality is the goal of educator preparation in all phases of the program. This process is ultimately determined by a program's meeting of Standard 4.

Standard 4. Program Impact

The provider demonstrates the impact of its completers on P-12 student learning and development, classroom instruction, and schools, and the satisfaction of its completers with the relevance and effectiveness of their preparation.

Standard 5. Provider Quality Assurance and Continuous Improvement

The provider maintains a quality assurance system comprised of valid data from multiple measures, including evidence of candidates' and completers' positive impact on P-12 student learning and development. The provider supports continuous improvement that is sustained and evidence-based, and that evaluates the effectiveness of its completers. The provider uses the results of inquiry and data collection to establish priorities, enhance program elements and capacity, and test innovations to improve completers' impact on P-12 student learning and development.

Appendix E

Edited Standard Verbiage in Wordle 1

The following edits were made to CAEP standards 1-5 order to eliminate unnecessary verbiage and to better consolidate terms in order to prevent high variations of a given word stem.

Guidelines for Wordle 1 edits:

OMITTED WORDS: and, the, that, a, of, their, by, are, able, to, all, are, so, on, all, is, its, from, at, through, in, with, including

OMITTED PUNCTUATION: Capitals, commas, periods, apostrophes, and numbers

CHANGED VERBIAGE: plural → singular, past & future verb tense → present tense

Examples:

Candidates → candidate

Continuing → continue

Recommended → recommend

Final Wordle 1 verbiage:

ROOTED IN RESILIENCE

	Verbiage included in Wordle 1
Standard 1	content pedagogical knowledge provider ensure candidate develop deep understanding critical concept principle discipline completion use discipline-specific practice flexibly advance learning student toward attainment college career-readiness standard
Standard 2	clinical partnership practice provider ensures effective partnership high-quality clinical practice central preparation candidate develop knowledge skill professional disposition necessary demonstrate positive impact P-12 student learning development
Standard 3	candidate quality recruitment selectivity provider demonstrates quality candidate continue purposeful part responsibility recruitment admission progression course clinical experience decision completer prepared teach effectively recommend certification provider demonstrate development candidate quality goal educator preparation phase program process ultimately determine program meets standard
Standard 4	program impact provider demonstrates impact completer P-12 student learning development classroom instruction school satisfaction completer relevance effectiveness preparation
Standard 5	provider quality assurance continuous improvement provider maintains quality assurance system comprise valid data multiple measure evidence candidate positive impact P-12 student learning development provider support continuous improvement sustain evidence-based evaluate effectiveness completer provider use result inquiry data collection establish priority enhance program element capacity test innovation improve completer impact P-12 student learning development

Appendix F

Refined Standard Verbiage for Wordle 2

The following edits were made to the Final Wordle 2 Verbiage in order to eliminate unnecessary terms and to create a more refined focus on the priorities of the CAEP standards.

Guidelines for Wordle 2 edits:

OMITTED TERMS:

term(s) regarding the program who is seeking accreditation: provider, program, partnership, course, system, standard

term(s) regarding the teacher in the program which is seeking accreditation: candidate, completer, educator, P12

term(s) regarding the future students of the teacher in the program: student

term(s) regarding the place in which the teacher education program resides: classroom, college, clinical

OMITTED WORDS: ensure, deep, use, toward, central, selectivity, continue, part, process, ultimately, phase, admission, relevance, continuous, maintain, multiple, establish, priority, comprise, necessary, assurance, completion

ROOTED IN RESILIENCE

Final Wordle 2 verbiage:

	Verbiage included in Wordle 2
Standard 1	content pedagogical knowledge develops understanding critical concept principle discipline discipline-specific practice flexibly advance learning attainment career-readiness
Standard 2	practice effective high-quality practice preparation develops knowledge skill professional disposition demonstrate positive impact learning development
Standard 3	quality recruitment demonstrates quality purposeful responsibility recruitment progression experience decision prepared teach effectively recommend certification demonstrate development goal preparation determine
Standard 4	impact demonstrate impact learning development instruction satisfaction effectiveness preparation
Standard 5	quality improvement quality valid data measure evidence positive impact learning development support improvement sustain evidence-based evaluate effectiveness result inquiry data collection enhance capacity test innovation improve impact learning development