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EQUITABLE STUDENT ENGAGEMENT: A CORRELATION BETWEEN
PERSONALIZED LEARNING, STUDENT ENGAGEMENT, AND POVERTY LEVEL

By

Andrea Yeager Neuzil

A DISSERTATION

Presented to the Faculty of

The Graduate College at the University of Nebraska

In Partial Fulfillment of Requirements

For the Degree of Doctor of Education

Major: Educational Administration

Under the Supervision of Dr. Kay A. Keiser

Omaha, Nebraska

August, 2016

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Andrea Yeager Neuzil, Ed.D.

University of Nebraska, 2016

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Abstract

The student population in classrooms across America is growing increasingly diverse in socio-economic background, schema, and learning styles; however, far too many academic programs are designed for a “one size fits all approach” that does not engage students. Educational leaders who promote new ways to personalize instruction in order to improve student engagement reap benefits far beyond what is expected. The researcher investigates the relationship of personalized learning and student engagement and socio-economic status. Previous studies have demonstrated the impact of student engagement as a means to improve academic achievement, school climate, and family and community involvement. The researcher includes peer-reviewed studies that demonstrate a positive correlation between personalized learning and student engagement; student engagement and academic achievement, faculty engagement and impacts on the student experience, and the long term effects of community and family engagement on student well-being. The researcher describes the findings as correlation coefficients measuring effect sizes. The greatest effect size presented in the study demonstrates the correlation of student engagement and poverty level.

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Chapter 1

Introduction

Tell, me, I forget.

Show me, I remember.

Involve me, I understand!

Chinese Proverb

For thousands of years educators have known students who are actively engaged, having personal experiences with content, have a better chance learning and retaining information. Building relationships with students helps educators to provide learning opportunities that are directed to student level and interest. Gallup research has shown that hope, engagement, and wellbeing are key factors that drive students' grades, achievement scores, retention, and future employment (2014). Many educators today are utilizing many personalized strategies to increase student engagement. Learning style theorists (Gardner, 1983; Marzano, 2007; McCarthy, Pretty, & Catano, 1990; Sousa, 2006; and Tate, 2003) have concluded manipulatives, movement, experiments, and other engaging strategies increase student engagement, achievement, and confidence.

Statement of the Problem

Yet with an increased emphasis on high-stakes testing, teachers are apt to spend the majority of time using worksheets and lecture to teach lower level concepts that are best assessed by paper and pencil (Tate, 2003). Educational leaders are living and working today in a society obsessed with measurement. With mandates such as No Child Left Behind (No Child Left Behind [NCLB], 2002) and competitions such as Race to the Top (USDE, 2009), it is without surprise school leaders have become immersed in the

ruthlessly competitive race of academic achievement. The legislation passed into law by President George W. Bush promised to close the achievement gap between advantaged and disadvantaged students by using standardized achievement tests to identify, threaten, and if necessary sanction school districts unable to fulfill this standard (Abernathy, 2007). With public mandates educational leaders have focused on the content and outcomes rather than the process of creating an engaging learning environment. Washington's mandates narrowly focuses the educational goals at enormous opportunity cost. Shining the spotlight on the testing outcomes of math and reading leaves all of the social sciences, history, civic education, the arts, all foreign languages, the building trades, and other curricular areas and school programs remain as background staging (Onosko, 2011).

For today's students, who are tomorrow's workers, the most competitive skill is the ability to learn. It is the skill of being able not only to regurgitate correct answers to questions about content that was taught in school, but the skill to make the right response "to situations that are outside the scope of what you were taught in school. We need to produce people who know how to act when they're faced with situations for which they were not specifically prepared" (Papert, 1998, p.2).

Many hours are spent at strategic planning meetings refining mission and vision statements that often result in words such as critical thinkers, lifelong learners, or culturally aware citizens. Yet many educational leaders do not actually spend time developing the skills of their staff in teaching students how to engage in their own learning to achieve those goals. Countless hours of professional development hours are spent with the staff creating common assessments, reviewing lesson plans and pacing guides and reviewing school policy. Yet, very little time is dedicated to coaching staff on

leading discussions with students that develop their skills in identifying their individual strengths and learning styles.

Active and engaged citizens must be creatively flexible, responding to rapid changes in the environment; able to think critically about what they are told in the media, whether by newscasters, politicians, advertisers, or scientists; able to execute their ideas and persuade others of their value; and, most of all, able to use their knowledge wisely in ways that avoid the horrors of bad leadership, as we have seen in scandals involving Enron, Arthur Anderson, Tyco, Clearstream, and innumerable other organizations (Sternberg, 2008, p. 25).

Successful education is not the amount of knowledge that people take away from school or the ability to pass a high-stakes test, rather it is the whetting of the appetite. Educational leaders' mission should be to increase the desire in students for knowledge and the skill of how to acquire and use it. Too many students leave school with the appetite killed and the mind filled with unorganized clumps of information.

Kelly Gallagher (2009) calls this approach to teaching, "*readicide* – the systematic killing of the love of reading, often exacerbated by the inane, mind-numbing practices found in schools" (p.2). While teachers might have good intentions to raise test scores, students are moving farther away from the goal of becoming "expert citizens" leading productive lives filled with creativity, common sense, wisdom, ethics, dedication, honesty, teamwork, hard work, how to win and lose, fair play, and lifelong learning (Sternberg, 2008). Jonathan Cohen, the president of the New York City-based National School Climate Center believes one of the problems with No Child Left Behind (NCLB, 2002) and even the Common Core State Standards is that educators are only focused on

students' cognitive learning. "But we all know that emotions, how we feel about a person, topic or activity... is going to shape how much we want to be cognitively engaged in (the) task" (Blad, 2014). Engaged students make an emotional investment in learning and display engagement behaviors by completing assigned academic work well and complying with the rules. Schlechty believes students are volunteers; teachers and administrators can force compliance but not commitment (2001). Without the emotional investment, cognitive engagement is missing. School becomes a place to "memorize and forget," where students do what's necessary to maintain their GPA. Disengagement like this affects students from all socioeconomic groups (Newmann, 1992). In one study of 81,000 students across the United States, the students not in Title I programs consistently reported higher levels of engagement than students who were eligible for free or reduced-price lunch (Yazzie-Mintz, 2007). This study illustrates the need for educational leaders to examine the engagement practices in their building regardless of the demographics of the student population.

Conceptual Framework

One empowerment educational model educational leaders have studied is Paulo Freire's *Pedagogy of the Oppressed* (1970), later renamed the *Pedagogy of Hope* (1994). When Freire was working with illiterate Brazilian peasants in the late 1950's, he advocated for an equitable educational experience. This model contrasted the typical "one size fits all, everyone on a conveyer belt, sit and get" model. Freire described this as 'banking' education or "an act of depositing" nuggets of civilized knowledge while students "patiently receive, memorize and repeat" the state-mandated content dispensed (Freire, 1970, p.72). This conventional educational setting, Freire argued that "education

becomes pure training, it becomes the pure transfer of content, it is almost like training animals, it is a mere exercise in adaptation to the world” (Freire, 2004, p.84).

Instead, Freire’s educational philosophy aspires to liberate and empower students by promoting critical consciousness of the world around them. He encouraged educational leaders to empower their students, encourage dialogue, to listen to the students’ voice even while questioning authority and thus providing opportunities for students to shape their own education and outcomes. He advocated for an educational experience, that “build skills, confidence, and opportunities for individual and collective action” (Delp, Brown, & Domenzain 2005, p.273). In essence, a “Freirean class invites students to think critically about subject matter, doctrines, the learning process itself and their society (DasGupta et al., 2006, p.248). Freire’s empowerment education model invites students to become subjects rather than objects in their complex social lives, fostering a desire to take social action and provide hope.

The idea that hope alone will transform the world, and action under-taken in that kind of naïveté, is an excellent route to hopelessness, pessimism, and fatalism.

But the attempt to do without hope, in the struggle to improve the world, as if that struggle could be reduced to calculated acts alone, or a purely scientific approach, is a frivolous illusion. To attempt to do without hope, which is based on the need for truth as an ethical quality of the struggle, is tantamount to denying that struggle is one of the mainstays (Freire, 2004, p. 2)

“Hope is in ontological need. Hopelessness is hope that has lost its bearings (Freire, 1994, p.2). For Freire, pedagogy always presupposes some notion of a “more equal and just future; and as such, it should always function in part as a provocation that

takes students beyond the world they know in order to expand the range of human possibilities and democratic values” (Giroux, 2010).

What Freire made clear is the pedagogy at its best is not about training in techniques and methods, nor does it involve coercion or political indoctrination. Indeed, far from a mere method or a priori technique to be imposed on all students, education is a political and moral practice that provides the knowledge, skills, and social relations that enable students to explore for themselves the possibilities of what it means to be engaged citizens, while expanding and deepening their participation in the promise of a substantive democracy. According to Freire, critical pedagogy afforded students the opportunity to read, write, and learn from a position of agency “to engage in a culture of questioning that demands far more than competency in rote learning and the application of acquired skills” (Giroux, 2010).

One of the tasks of the progressive educator, through a serious correct political analysis, is to unveil opportunities for hope, no matter what the obstacles may be. Freire’s guiding principles include: “start with the problems from the community, use active learning methods, and to engage participants in determining their own needs and priorities” (Wallerstein & Bernstein, 1988, p.382).

During Freire’s time working as the Superintendent of the Department of Education and Culture, he began to experiment with various avenues of educational practice in the implementation of students owning their educational activity. Freire completely understood the importance of educators, security people, cafeteria personnel, custodians, and other stakeholders in our community to actively intervene as to which direction the school is going. “Herein lies the importance of the teaching act more than

measuring content, not in a measure that the educator is depositing in the student a description of the content. Teaching someone to learn is only valid when students are learning to learn and the professors' primary act of teaching should be to teach students to learn not simply the content being taught" (1994, p.38) "But just as it is impossible to teach learning without teaching a certain content through whose knowledge one learns to learn, neither is the discipline of which for error teaches but in and buy the cognitive practice of which the students become the evermore critical subjects" (1994, p.71). This is where the students are learning about their own learning. Personalization in learning requires educators teaching with grace. It implies a sincere, fundamental respect for the students as individuals to become engaged in the learning. Who chooses the content and to what level of depth and organization of the material, should be co-created with the educators and the students. This democratization in education increases engagement and bridges the social boundaries placed upon classes (Freire, 1994).

Regardless of what society we're in, in what world we find ourselves, it is impermissible to train engineers or stonemasons, physicians or nurses, dentists or machinists, educators or mechanics, farmers or philosophers, cattle farmers or biologists, without an understanding of our own selves as a historical, political, social, and cultural beings without a comprehension of how society works. And this will never be imparted by a supposedly purely technological training (Freire, 1994 p.123).

Freire's empowerment education model taught against the pure mechanical transfer of the content from teacher to student. According to Brouse, Basch, & Wolf

(2010), dialogue is central to Freire's philosophy of education, a philosophy that encourages reflective participation and action.

The power of positive adult-student relationships and dialogue is critical for learning to occur. This relationship involves showing students that the educational leaders care for their learning as a student, and can "see their perspective, communicate it back to them so that they have valuable feedback to self-assess, feel safe, and learn to understand others and the content with the same interest and concern." (Cornelius-White, 2007, p. 123). Power and hope are sources of motivation to learn and to do. Motivation produces student involvement and involvement produces learning and literacy (Shor, 1987, p.13). Inspiring classrooms and encouraging more teachers and students to become intellectually challenged, the body of knowledge better prepares citizens to act democratically transforming society. The fate of education has been grossly influenced by economics. The most glaring social inequity is that the greater money is invested in the education of wealthier students at all levels. The humanities curriculum should be admired when it generates critical thought in students and inspires them to interactive learning.

Dialogue discussed by Paulo Freire is one way to reduce student withdrawal and teacher talk in the classroom. The dialogue class begins with a student supposing the problems dialogue calls for teach the teachers art of intervention into the art of restraint so that the verbal density of a trained intellectual does not silence the verbal styles varied in the classrooms of today.

A teacher must grow from the spacious hope of being much more than a talking textbook, more than a mere functionary who implements tests. Teaching should offer an

illumination of reality that help the students examine social limits. Learning is more than job-training and more than socialization is really a critical study of society. Listening for students' "hidden voices" is unlike other competency based approaches. The needs assessment is not completed before the beginning of class, nor is the listening effort undertaken by the teacher alone. As content is drawn from the learners' daily lives, listening becomes an ongoing process involving both teachers and students as co-learners and co-explorers (Freire, 1994).

When students are treated as equals in their learning through investigation, learning through critical thinking tools, analyzing, using their English outside the classroom, they realize their potential in participating when decision-making. Throughout Freire's life, he concentrated on developing the appropriate pedagogical strategies. During periods of rapid social change many individuals envision new futures for themselves. However for people to benefit fully from new possibilities, meaningful educational programs must be created. Education designed for active, engaged to learners provides an opportunity to understand the nature of the written word, the possibilities for its effective communication, and the difficulties in its production.

This requires school leaders to develop a culture with an open mindset about progress, relationships, and students. It requires them to believe that their role is that of a change agent so "that all students can learn and progress, that achievement for all is changeable and not fixed, and that demonstrating to all students that they care about their learning is both powerful and effective" (Hattie, 2009, p. 128).

The Freirean model for positive group dialogue encourages discussion in personal experience, integrating that experience into a broad social context, and together teacher

and student evolve alternative assignments and assessments and learning methods through a self-directed experience. Paulo offered no recipes for those in need of instant fixes. Freire had no “menu-like answers to the problems they raised about education” (Giroux, 2010). Rather he had the sincere hope that critical pedagogy would be “defined by its context and must be approached as a project of individual and social transformation” (Giroux, 2010). This hopeful educational model focusing on the learner as an individual built the foundation for educators to provide a more personalized and therefore more engaging educational practice.

Dr. Shane Lopez, senior scientist at Gallup, wants us to know how useful hope can be. “Hope is the leading indicator of success in relationships, academics, career, and business—as well as of a healthier, happier life,” he says. Hope is “the belief that the future will be better than the present, along with the belief that you have the power to make it so” (2013).

Purpose Statement

The purpose of the study is to explore the impact of personalizing student learning on student engagement, particularly for those living in poverty. This study identifies areas, other than academic achievement, to measure student success. School districts that embrace a broader, richer definition of student success include measures of student engagement, hope, and wellbeing.

This study examines the literature on student engagement as an equitable approach for improving academic achievement and creating a positive impact on the student as a life-long learner. Student engagement does not have a limited setting. Reaching out to families and their surrounding communities can transform the

educational and community landscape. School districts must employ diverse approaches to engaging students as the student population of the community differs from one student to the next. The engagement with the student begins with the educators getting to know the students as individuals. This personalization in education provides hope for future generations.

Research Questions

Hence, the overarching question that provides the foundation for this study is: Is there a relationship between personalized learning and realization of student engagement in elementary schools with a high population of students qualifying for free/reduced lunch?

Question 1: What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey to the student engagement score measured by Gallup?

Question 2: What is the relationship between building level engagement scores measured by Gallup to the building level rank in free or reduced price lunch eligibility?

Definition of Terms

Engagement - The involvement in and enthusiasm for school, reflects how well students are known and how often they get to do what they do best (Gallup, 2014).

Personalization - Instruction paced to learning needs, tailored to learning preferences, and adapted to the specific interests of different learners (USDOE, 2009).

Poverty Level - Free meals are eligible to children in households with income at or below 130% of the federal poverty guidelines, and reduced-price meals to eligible

children in households with income above 130% and at or below 185% of these guidelines (U.S. Department of Agriculture, Food, and Nutrition Service, 2005).

Limitation of the Study

A limitation of the study includes Gallup Student Poll methodology and limitations of polling. If most eligible students in grades five through twelve were polled, the district (or school) may indicate that the data represent a census. Since the overall data found in a school or district report is an aggregate of a convenience sample of all schools and districts that opted to participate in the Gallup Student Poll within that survey year, the data are not representative of the U.S. population of students in grades five through twelve and are thereby not fit for data comparisons. Schools participating in the annual Gallup Student Poll are not randomly selected and are neither charged nor given any incentives beyond receipt of school-specific data. Participation rates vary by school.

The poll is conducted during a designated survey period and available during school hours Tuesday through Friday only. The Gallup Student Poll is administered to students in grades five through twelve. The primary application of the Gallup Student Poll is as a measure of non-cognitive metrics that predicts student success in academic and other youth development settings. The overall data from the annual administration of the Gallup Student Poll may not reflect responses from a nationally representative sample of students, and the overall data are not statistically weighted to reflect the U.S. student population; thereby, overall data and scorecards should be used cautiously by local schools and districts as a data comparison. School and district data and scorecards provide meaningful data for local comparisons and may inform strategic initiatives and

programming, though the results are not generalizable beyond the universe of the participating school or district (2014).

Delimitation of the Study

The following delimitations were imposed by the researcher. Only one school district participated in the WCS Strategic Plan Student Survey. While the survey was available to all students grades three through twelve, results were based on students who actually completed the survey, reducing the number of participants. Since the study was limited to one school district, the results may not be generalized to students in all districts.

Significance of the Study

The study seeks to gain understanding of the personalized learning practices of a small metropolitan school district and measure the predictability of student engagement scores. Second, it intended to gain understanding of the influence, if any, of student engagement scores on demographic characteristics measured by free/reduced lunch prices. Third, the study sought to add to the current body of literature on student engagement, specifically as it pertains to influence the culture of the educational community. This research also hopes to inform district policy and practice by providing relevant information on the influence of personalized learning and engagement at the elementary level. Intellectual contributions of the study include additional perspective to the Pedagogy of the Oppressed by examining the power of voice and choice in learning overcoming pockets of poverty.

When school districts expand upon their definition of student success and ask students how engaged they are in their learning, how much voice and choice they have in

their educational opportunities, and experience learning in a way they learn best, districts can become more intentional when approaching strategic planning for school improvement. When researching the topic of effective instructional practices, one cannot deny the powerful impacts of engagement. Equitable engagement places the student at the center of the learning and the teacher, administrators, families, and community members surrounding and supporting all areas of students' needs. Where academic achievement is the most notable manifestation of student engagement it is certainly not the pinnacle. When school districts increase engagement among families and communities, powerful lasting changes take place on a larger level. Engagement builds economic independence, increases family stability, and creates more sustainable and resilient communities.

Chapter 2

Review of Literature

Introduction

Every student has a unique set of talents and goals that, if recognized and cultivated, will lead him or her to achieve long-term success and a fulfilling future. The literature examines how engagement impacts the students' educational experiences, how personalization impacts engagement, and how the most vulnerable student population can benefit from both.

Many U.S. schools are missing the mark on helping students discover and maximize their unique talents. That means millions of students are focusing on the wrong things, while their talents are languishing unnoticed, likely leaving them bored and frustrated. What these young scholars need is help in understanding and developing the strengths in which they already possess. According to Rath, Vice Chair, Gallup Education, students need a personalized approach of strategies and content to be successful learners (Gallup, 2014). The current focus on standardized testing assumes that all students should have a similar educational experience leaving little time for students to figure out what they love to do and where their greatest talents lie, wasting time and talent (Gallup, 2014).

Less than half of America's students strongly agree that they get to do what they do best every day, according to the Gallup Student Poll. More than 600,000 students took this brief, simple survey in 2013. One of the key findings is that students who strongly agreed that their school is committed to building students' strengths and that they have a teacher who makes them excited about the future are almost 30 times as likely to be

engaged learners as their peers who strongly disagreed with both statements (2014).

The literature examines educational practice that prioritizes the principles of personal learning and exploration, student engagement on the learning process, for students regardless of socioeconomic status. An education that makes students hopeful and prepared to find or create good jobs isn't just important to America's future — it should be a fundamental right of every student in the country (Gallup, 2014).

Many indicators have been used to measure the accomplishments of students and schools: attendance (drop-out rates), credits earned, grades, and performance on several types of tests standardized achievement tests; college admission tests; competency tests constructed by schools, districts, states, and the national assessment; and teacher-made tests for specific courses. Unfortunately, each of these indicators is deficient in indicating what the student actually knows or can do, ignore personal aspects and goals such as creativity, interpersonal sensitivity, psychological development, civic responsibility, or critical thinking. They also perpetuate the cultural biases that unfairly restrict educational opportunity. Indicators of success that avoid these faults cannot be constructed by specialists in testing and measurement alone. Such a project requires reexamination of the very goals of schooling, which, in a democracy, demands broad participation of educators and the public at large (Newmann, 1992).

Educational leaders adhering to a theory of equity presented by Freire create engagement through dialogue. Educational leaders having open-dialogue with those they are leading, allows for adjustment to the outcomes and processes of the educational journey. Renzulli (1998) states that an “an appropriate balance between authentic knowledge (content) and instructional techniques (process)” is required (p.298). “To

differentiate instruction is to recognize students' varying background knowledge, readiness, language, preferences in learning and interests; and to react responsively. (Hall, Strangman, & Meyer, 2003)

Personalized Learning Defined

According to U.S. Secretary of Education Arne Duncan, Race to the Top's goal is to focus on the classroom level and "personalize education" while taking classrooms "beyond a one-size-fits-all model." No matter where they are located, students should have access to world-class resources and experts that can enrich a learning experience that is largely designed just for them. And parents should be able to follow their child's activities and progress almost in real-time, helping them stay more engaged in their child's education (2014). However, RTT employs crisis rhetoric about a dire economic future and then offers up test- score surveillance as the central strategy to develop children in narrow ways for national purposes. In short, the opportunity cost to individual human development and our nation's most valuable resource, human capital, will prove devastating (Onosko, 2011).

Personalized learning plans enable individualization, differentiation, and personalization. Personalization includes adjusting the pace to individual learners and adjusting or differentiating instructional methods while also providing different learning objectives tailored to individual interests (U.S. Department of Education, 2009).

So how do schools create personalized plans that work for students? According to Gallup's studies of schools nationwide, it is to build education plans that match up with each student's unique strengths. In other words, when students know what they do best and have opportunities to develop those talents, they are more motivated and enthusiastic

about learning. Gallup's research shows that more than eight in 10 students who strongly agree that their school is committed to building the strengths of each student are engaged in school (2014).

Students may be more engaged if they have some degree of control over learning (Brooks & Brooks, 1999). "What students are to learn is usually not subject to negotiation, but students do have considerable choice of what they will do in order to learn what it is intended that they learn" (Schlechty, 2001, p. 125). Students can make decisions about their own learning and manage time and materials effectively. They can be given choices between different assignments, be given minimal supervision in group projects, and be made to be responsible for monitoring their own progress. Students' first attempts at decision making and time management may not be successful, but teachers can help by providing guidelines students can use to monitor their own progress (Murdock, 1995).

Miliband, former U.K. School Standards Minister defined PL as "the way in which our best schools tailor education to ensure that every pupil achieves the highest standard possible...by focusing teaching and learning on the aptitudes and interests of pupils (2006, p.24)

Personalized Learning Models

Problem-based learning (PBL) refers to learner centered, inquiry-oriented instructional methods (Barrows & Tamblyn, 1980). PBL allows learners to select content of which they are interested. Students choose their preferred methods and advance at a pace in which they are comfortable (Savery, 2006). PBL presents several educational benefits, including effectively learning academic content, developing higher-order

thinking skills, 21st century skills, and meta-cognitive skills while engaging and motivating learners (Lee, Blackwell, Drake, & Moran, 2014).

New York City's School of One utilizes an integrated technology system, called Learning Algorithm. The Algorithm tracks student progress, learning profiles, learning needs, and resources such as textbooks, teacher-created lessons, web-based lessons and video games. At the end of each day, students completed individualized criterion-referenced tests to assess their mastery of the day's learning (Light, Reitze, & Cerrone, 2009). NYC's Department of Education's Research and Policy Study Group evaluated the learning outcomes, processes, and logistics and provided recommendations. Based on the results, the School of One students significantly outperformed their peers with seven times greater gains than their peers with comparable pre-test scores and similar demographics (Light et al., 2009).

The philosophy of learning for Institute @ CESA #1 states all learning is personal. Learning is an autonomous activity, initiated and controlled by the learner. The same stimulus presented to multiple learners may result in learning for some, but not others. For learning to occur, there needs to be a connection, interaction or context identified.

Our work is to make these connections predictable, which can only happen if we have a rich understanding of the learner, what motivates, where interest lies, what is ready to be learned, and what connections will likely be made and stick. It also requires that we include the learner as a key contributor to their learning (Rickabaugh, 2012).

The CESA receives guidance from a Professional Advisory Committee, comprised of the 45 superintendents from member districts.

Personalized Learning & Technology

Personalized Learning plans require a large amount of student data collection. Reigeluth et al. (2015) describe specific guidelines to creating a personalized learning plan. This requires collecting relevant student data such as career goals, interests, characteristics, and mastery levels. Based on the data, the teacher, students, parents, and other educational leaders develop long-term and short term learning goals, topics and academic standards based on the goals. Selecting projects and teams that students can be involved in, describing student roles and responsibilities should be developed and written in a contract to ensure the goals are measurable and attainable.

Using technology to build Personal Learner Profiles based on student strengths, challenges, interests, aspirations, talents, and passions validates learning. It also promotes collaboration when designing learning goals based on how best students access information, engage with content, and express what they know and understand (Bray & McClaskey, 2015).

Building Personalized Learning Plans, Profiles, and storing student data are not the only use for technology. The Substitution Augmentation Modification Redefinition (SAMR) Model developed by Dr. Puentedura offers a method of seeing how computer technology might impact teaching and learning. SAMR shows a progression that adopters of educational technology often follow as they progress through teaching and learning with technology. The continuum is as follows: Substitution - Technology acts as a direct tool substitute, with no functional change. Augmentation - Technology acts as a

direct tool substitute, with functional improvement. Modification - Technology allows for significant task redesign. Redefinition - Technology allows for the creation of new tasks, previously inconceivable. While one might argue over whether an activity can be defined as one level or another, it is important to note the level of student engagement as the learning transforms. One might measure the progression along these levels by looking at who is asking the important questions. As one moves along the continuum, computer technology becomes more important in the classroom but at the same time becomes more invisibly woven into the demands of good teaching and learning (Rowe, 2014).

Prensky studied the paradigm shift in the way adults and children (teachers and students) perceive differences in technology, finding that students and teachers experience a digital divide, and that the American educational system is not designed to teach today's digital natives (2001).

Personalized Learning and Brain Research

Plutarch provided the analogy “the mind is not a vessel that needs filling, but wood that needs igniting (citation). Freire described the conventional approach to depositing into the mind of the student ‘banking education’ (1970). The National Research Council and Commission on Behavioral and Social Sciences emphasized the importance of customizing the instruction to the preexisting knowledge, intellectual abilities, and cultural differences of individual learners. Learners that take control of their own learning develop their own metacognitive strategies and develop deep understanding of the subject matter and about the learning process (Bransford, Brown, & Cocking, 2000).

Neuroscientist Johansen-Berg, links our observations about cognitive behavior with the actual physical processes that support such behavior (2011). Learning is a biological process indicated by the growth and strengthening of connections between neurons. Learning can be defined as the moving of information from short term memory, sometimes called working memory, to long term memory. Sensory memory, associated with our senses is when information is briefly stored for processing. Information is stored for only a fraction of the second therefore no conscious decision is made concerning how to process the information. The primary purpose of short term memory is to purge or release the new information from memory; to maintain the information in working memory via simple rehearsal; or to move the information from short-term or working memory into long-term memory for later recall.

Working memory holds limited information or a limited amount of time, by using cognitive learning strategies to transfer information from working memory to long-term memory. Cognitive learning strategies are methods used to help learners link new information to prior knowledge to transfer the learning through a systematic design of instruction. This requires learners to learn topics by scaffolding through a series of steps and chunking information into smaller units that are relevant and meaningful to them (Johansen-Berg, 2011).

Long term memory occurs when the information is processed deeply, questions are asked repeatedly to retrieve information and followed by feedback, a material is practiced often, and this study of material used space to over days and weeks. When this happens more neurons are activated and retention is more likely improved (Johansen-Berg, 2011). Neuroplasticity refers to the brain's ability to improve and continue to adapt

and learn throughout life. When you learn something new, your brain makes new connections (Doidge, 2007). Brain imaging technology has discovered how malleable the brain is and has refuted the idea that a person's mind is fixed or static (Groff, 2013). Learning occurs when the brain is active. The brain is active when one reflects on learning. Educators who helped learners develop questions about the information they read or hear will expand student thinking (Bray & McClaskey, 2015).

Therefore seat time in a classroom will not necessarily lead to learning. Universal design for learning (UDL) is based on decades of educational research and the neuroscience of individual differences, human variability, and how students learn. The principals of UDL combined with Freire's pedagogy of equal opportunity provide a path on which all individuals can learn about their own learning. There is not a one size fits all approach that works for all students, rather a system of learning that can be customized and adjusted for individual needs (Bray & McClaskey, 2015).

Kirschner et al., (2006) argue that minimal guidance in some learner centered instructional approaches ignores the need for scaffolding. They explain the limits of novice learners lack of prior background knowledge limits the working memory capacity limiting the processing of new information into long-term memory. UDL guidelines provided a lens for teachers to understand how learners learn best. This method of instruction can reduce barriers to learning as well as optimize the levels of support to meet the needs and interests of all learners in the classroom (Bray & McClaskey, 2015).

Personalized learning considers "why" of learning, through this the learners will want to engage with the content (Meyer, Rose, & Gordon, 2014). Learners want to learn more about something in which they are interested. If learners are given an option to

pursue an interest or project, they want to learn more and show what they found out. If instruction taps into their talents, they are more motivated to use their talents to demonstrate what they know.

Engagement is the affective side of learning. The lesson is that student interest and aspirations act as the hook for the learner. In wanting to learn more about something in which you're interested allows for their voice and choice to be demonstrated defining who they are as learners and how to learn best (Bray & McClaskey, 2015).

When learners include their voice and have opportunities for choice, this changes how they interact with the content, the teachers, and one another. Freire would call this dialogical approach a democratically balanced experience for the learner and the educator. This learner centered approach can help learners to articulate their perspectives as stakeholders in their learning, moving from data sources to leaders of change (Bray & McClaskey, 2015). Personal learning prepares young people to meet the demands and engage the opportunities of the 21st century.

The trifecta of student centered learning according to Dr. Michael Nakkula and Dr. Toshalis, intersects at motivation, engagement, and student voice. Freire might have appreciated the researchers' spectrum of learner voice oriented activities. At the left of the spectrum, learners are provided opportunities sharing opinions, creating art, performing theater, and getting their perspectives. "Consulted more than empowered, these are still examples of student voice because they provide youth with a chance to formally declare their opinions about something in the hope they will be considered when decisions are made" (Toshalis, & Nakkula, 2012, p. 24-25). The researchers continue to describe the spectrum moving from the left (consultation), to participation, to partnership

beginning to move toward activism and leadership as learners to the far right side of the spectrum, they are prepared to lead as problem solvers and decision makers. When learners act in a way to produce a meaningful change, students create knowledge more than just absorb it, which helps us understand why students want to do things that enhance the opportunities for voice and making spaces for agency. The more educators to give learners choice, control, challenge, and opportunities to collaborate, and the more the learner is motivated and engaged in the learning and eventually taking on the leadership role (2012).

Gallup suggests many educational systems over analyze and focus on standardized testing and curricula to the lack of experiential and problem-based learning activities for learners, as reasons for declining engagement. When learners pursue their passions or interest, they are intrinsically motivated to learn. When students are engaged and have choices in their learning, they begin creating personal goals, regulate their learning, and begin to monitor the progress toward those goals. Personalized learning expands the experience of belonging, invites students to use their interests and strengths, and are more talented, motivated, and collaborative, engaged, and more powerful (2014).

Personalized Learning and Engagement

Educational leaders adhering to a theory of equity presented by Freire create engagement through dialogue. Educational leaders having open-dialogue with those they are leading, allows for adjustment to the outcomes and processes of the educational journey. Renzulli (1998) states that “an appropriate balance between authentic knowledge (content) and instructional techniques (process)” is required (p.298). Differentiation is “matching appropriately challenging curriculum and instruction with a

student's abilities, interests, and learning styles through a variety of instructional strategies and challenging curriculum" (Renzulli, 2008). "To differentiate instruction is to recognize students' varying background knowledge, readiness, language, preferences in learning, and interests; and to react responsively (Hall, et al., 2003). However, according to an observational study students experienced no instructional or curricular differentiation in 84% of the activities in which they participated. (Westberg, Archambault, Dobyms, & Salvin, 1993).

Individualized learning plans are a critical component in the successful implementation of personalized learning and the effective use of blended learning models. Such plans could, for example, help support teachers' instructional decision making by outlining students' academic strengths, needs, interests, and course requirements, there by serving as guides for determining when and how to engage students in face-to-face or technology-based instructional activities that best advance their current learning trajectories (Tanenbaum, Le Floch, & Boyd, 2013).

Student Engagement Defined

The involvement in and enthusiasm for school, reflects how well students are known and how often they get to do what they do best (Gallup, 2014). Today engagement is the term usually used to represent constructs such as "quality of effort and involvement in productive learning activities" (Kuh, 2009 p.5). The National Survey of Student Engagement (NSSE, 2014) gathers information about educational quality in K-12 classroom and college campuses. It uses a specially developed survey instrument consisting of questions that address empirically confirmed "good practices" in education and promote student engagement.

NSSE defines engagement as the frequency with which students participate in activities that represent effective educational practices and conceive of it as a pattern of involvement in a variety of activities and interactions both in and out of the classroom. Edgerton (1997) states “to really understand an idea...a student must be able to carry out a variety of performances involving the idea” (p.4).

Barkley (2010) asserts that engagement occurs on a continuum, starting at the intersection of motivation and active learning. She believes student engagement is a process and a product that is experienced on a continuum and results from the synergistic interaction between motivation and active learning. Brophy (2004) defines motivation in the classroom as “the level of enthusiasm and the degree to which students invest attention and effort in learning. Barkley’s view of motivation takes into consideration the internal state of the students’ feelings and the external state of punishment or rewards provided by the teacher (2010).

Csikszentmihalyi’s (1993, 1997) concept of “flow” describes the deep intrinsic motivation one experiences when activity becomes worth doing for its own sake. The task at hand becomes so engaging that irrelevant stimuli disappear from consciousness that worries or concerns temporarily disappear and time seems to pass by more quickly. Barkely asserts that motivation is the portal to engagement, and understanding the complexities that underlie motivation are necessary to guide educational leaders in setting up conditions that enhance students’ eagerness to learn. Student engagement in academic work as the student's psychological investment in and effort directed toward learning, understanding, or mastering the knowledge, skills, or crafts that academic work is intended to promote (2010).

Student engagement has been defined in many ways, Renzulli defines it as the “infectious enthusiasm students’ display when working on something of personal interest pursued inductively” (2008).

Tools Measuring Engagement

Gallup Student Poll classifies one-third of U.S. students in grades 5-12 as "hopeful," "engaged," and "thriving" -- three metrics that pave the way for future achievement. While 53% of students are hopeful, 63% are engaged, and 70% are thriving, many students fall short in at least one of these dimensions. In the early 1990s, the U.S. Department of Education expressed interest in determining whether tools could be developed to provide institutions with valid, reliable information about the student experience and commissioned an evaluation of existing instruments toward this end (Ewell & Jones, 1996). In 1998, experts began to discuss ways to shift the national dialogue about collegiate quality from what college rankings typically emphasize institutional resources and reputation to authentic evidence of student learning and effective educational practice.

NSSE annually collects information at hundreds of four-year colleges and universities about student participation in activities and programs that promote their learning and personal development. The results provide an estimate of how undergraduates spend their time and what they gain from attending their college or university. Institutions use their data to identify aspects of the undergraduate experience that can be improved through changes in policy and practice. The basic questionnaire collects information in five categories: (a) participation in dozens of educationally purposeful activities, (b) institutional requirements and the challenging nature of

coursework, (c) perceptions of the college environment, (d) estimates of educational and personal growth since starting college, and (e) background and demographic information. There are additional modules that measure experiences with diverse perspectives, writing, informational technology, civic engagement, and many other aspects of the educational experience (2014).

The NSSE measures the data teachers use to improve the undergraduate experience. In the absence of actual measures of student learning, student engagement data are “process indicators,” or proxies, for learning outcomes. Among the better-known process indicators are the seven “good practices” in undergraduate education, such as setting high expectations and providing prompt feedback (Chickering & Gamson, 1987). Process indicators often point to areas that schools can improve student and institutional performance.

Carini, Kuh, and Klien, (2006) examined the experimental and traditional measures of academic performance in association with a student’s engagement level. The study reviewed the practices of 14 4-year universities and their ability to convert student engagement with academic performance. The study found positive correlations that were statistically significant for first-year students who reported coming to class having completed the reading and assignments (.16), quality of relationships with faculty (.16), and administrative personnel and offices (.16) and worked harder to meet instructors’ expectations (.14). Interestingly, two negative correlations that were statistically significant were first-year students involved having serious conversations with students who were very different from you (-.14) and with respect to understand people of other racial and ethnic backgrounds (-.15).

The seniors in the study reported to have benefitted less than first-year students from working harder, coming to class more prepared, and having high quality relationships with collegiate employees. However, seniors reported benefitting more from working with other students on projects, integrating ideas from other courses, having contact with students of different backgrounds as well as attending campus activities and events.

Many measures of student engagement correlate to academic performance or desirable learning outcomes such as critical thinking and elevating student grade point averages. The study also suggested that some universities convert student engagement into higher performance on critical thinking tests. Additionally, students with the lowest SAT scores appeared to have benefitted from student engagement more than students with high SAT scores.

The Faculty Survey of Student Engagement (FSSE) as cited in NSSE (2014) Topical Modules explored institution-supported and faculty-driven efforts to better understand and improve student learning and educational experiences using short sets of questions on topics related to current issues in higher education and student engagement. In FSSE 2014, the Scholarship of Teaching and Learning (SoTL) topical module was completed by 814 faculty from 10 institutions. Spending time to improve one's teaching is important for engaging students. The more time faculty spent trying to improve their teaching, the less time they spent lecturing in their courses and the more time they spent engaging students in discussion, small-group activities, student presentations or performances, and experiential activities. For example, 42% of faculty who spent no time working to improve their teaching spent more than half of their course time lecturing.

Only 26% of faculty who spent five or more hours per week working to improve their teaching spent more than half of their course time lecturing. Of faculty who spent no time working to improve their teaching, 60% spent no class time on experiential activities compared to 38% of faculty that spent five or more hours working to improve their teaching (p.20)

Research has consistently found that membership in a learning community is positively associated with a variety of different forms of engagement. For example, learning community participation is positively related to faculty–student interaction and collaboration with peers. Participating in a learning community also was positively related to first-year students’ integrative and higher-order thinking, as were being a member of a minority group and being an arts and science major (Pike, Kuh, & McCormick, 2011).

Pike and colleagues (2011) also found evidence to suggest that interactions with faculty members and interactions with other students play an important role in mediating the relationships between learning community participation and grades, retention, and learning outcomes.

In a review of student engagement studies, Jennifer Fredricks and her colleagues describe the three generally accepted constructs of student engagement as behavioral engagement, emotional engagement, and cognitive engagement (2004). Behavioral engagement describes participation and involvement in the academic activities of school that are critical to academic goals and staying in school. Examples of behavioral engagement include following class and school rules, completing assignments, staying on task, and participating in class and school activities.

Emotional engagement describes a student's feelings toward his or her school, classes, teachers, and classmates. A student experiencing positive relationships with teachers and classmates, enthusiasm for the work, a sense of belonging, and the identification with the school are all hallmarks of emotional engagement.

Cognitive engagement describes a student's investment in learning. A model of cognitive engagement could include students accepting the challenge to learn the material, exercising self-control by persistently staying on task, and understanding the importance of the material to be learned (Fredricks et al., 2004). Cognition is important for "revealing what the learner thinks about his/her situation and for providing a focus on how deeply he or she is engaging with the subject of learning... thinking about what is being learned, as well as exercising choice about how to learn it" (Goldspink and Foster, 2013, p.293).

Student engagement evolves from the interaction of an individual student with the various qualities that constitute a school's environment, and three implications emerge. Positive and negative descriptors can be made for behavioral, emotional, and cognitive engagement with individual students varying in engagement intensity and duration (Fredricks et al., 2004).

Engagement and Academic Achievement

Harbour, Evanovich, Sweigart, and Hughesa, (2015) defined and measured the "best practices" of effective instruction. They determined the probability that students will be actively engaged in instruction. Student engagement is one of the most well-established predictors of achievement; when students are more engaged in academic instruction, they tend to have greater academic and social success. These "best practices"

include modeling desired academic and social behavior, providing opportunities to respond to curricular content, and providing academic and behavioral feedback.

Once the best practices are determined, the appropriate professional development for teachers must be implemented with fidelity. Gregory, Allen, Mikami, Hafen, and Pianta (2014) used a randomized controlled design to test the efficacy of the My Teaching Partner-Secondary program to increase behavioral engagement. The program offered teachers personalized coaching and systematic feedback on teachers' interactions with students based on systematic observation of video recordings of teacher-student interactions in the classroom. The researchers found that intervention teachers had significantly higher increases in student behavioral engagement in their classrooms after one year of involvement with the program compared to teachers in the control group.

Research has consistently found that professional development paired with membership in a learning community is positively associated with a variety of different forms of engagement. For example, learning community participation is positively related to faculty–student interaction and collaboration with peers. Pike and his colleagues also found evidence to suggest that interactions with faculty members and interactions with other students play an important role in mediating the relationships between learning community participation and grades, retention, and learning outcomes. Participating in a learning community also was positively related to first-year students' integrative and higher-order thinking, as were being a member of a minority group and being an arts and science major (Pike, et al., 2011).

Shouping, Kuh, and Shaoqing, (2008) discovered student engagement through inquiry-oriented activities was correlated with engagement in other educationally

purposeful activities. Activities such as using the library, using computer and information technology, using campus facilities, and participating in campus activities contribute to student gains from college. To reduce the likelihood that the effects of student engagement in inquiry-oriented activities on desired outcomes are inflated, the researcher controlled for engagement in other activities in the regression analyses. This is not surprising given that inquiry-oriented activities reflect exemplary learning models such as experiential and problem-based learning and “good practices” in undergraduate education. However, with very few exceptions, the empirical evidence about the effects of student engagement through inquiry oriented activities is mostly about cognitive outcomes (Hu, Kuh, & Li, 2008). It is not yet clear whether student engagement in these activities has similar desirable effects on a broader range of outcomes such as the personal development of students.

Student Engagement on School Climate and Drop-Out Rates

The relationships of student engagement, personalized learning, and the feelings of hopefulness and wellbeing are correlated with the student attendance. Students who engage in school activities tend to make better choices and avoid high risk behaviors. Cooley, Henriksen, Van Nelson, and Thompson (1995) found young people who participate in student activities consume less tobacco, alcohol, and marijuana than non-participants. Engaging in extra-curricular activities correlates with healthier student wellbeing and a safer school climate. Participation in at least one student activity decreases the likelihood that a student will drop out of school. Research demonstrates a positive correlation to participation and the dropout rate and is strongest among at-risk students and minorities (Mahoney & Cairns, 1997; Mahoney, 2000).

Engaging Families

Increasing student engagement is not just the teacher's role, does not stop in the classroom, and needs to continue past school day hours. School districts that actively engage with families have a positive impact on academic achievement, attendance, and hope for the future (Epstein et al., 2002). Many school districts are not quite sure about how to engage families in building positive partnerships. Many schools' family engagement plans rely heavily on parent volunteer opportunities that occur during school hours.

The National Network of Partnership Schools (NNPS) identified six types of involvement to provide a more comprehensive and equitable approach.

(a) Assisting families with parenting skills helps families provide an environment to support student learning. This also helps the schools get to know the needs of individual families. (b) Developing communication plans and methods to provide two-way communication about events, academic progress, and behavior help parents monitor school progress. (c) Providing a variety of volunteer opportunities that occur during and after school hours, at a variety of locations in a variety of formats increases the likelihood of low income families' participation in school activities. (d) Including families as participants in school decisions through strategic planning helps to develop parent leaders and representatives. (e) Involving families with learning opportunities at home supports students outside of the school. Finally, (f) collaborating with the larger community helps to bring the resources and agencies together to support the students and families as active partners (Epstein et al., 2002).

The NNPS's six components of family engagement programs can help educational leaders provide training to their staff, extend learning into the home of its students and increase family participation and engagement. Family engagement can be built in all socio-economic levels of the community when teachers and administrators build partnerships and programs with students, families, and the community at large (Epstein, 2001).

Student Engagement for Social and Civic Impacts

Marsh and Kleitman (2003) discovered students who engage in extra-curricular activities are more likely to attend college. They submit more college applications than those in the control group that do not engage in extra-curricular activities. The participants were in middle and high school and self-reported to be involved in extra-curricular activities. Engaged students were also more likely to enroll in college and pursue graduate school education.

Researchers discovered participants that engage in student activities including athletics develop greater leadership skills than non-participants which translates into a greater likelihood of moving into managerial positions, higher pay in later life, and greater career success in general (Kuhn & Weinberger, 2005; Dobosz & Beaty 1999).

Student activities may create the conditions in which students can learn a sense of autonomy, self-belief, and self-expression. High school students that engage in activities are better connected to the community (Shelly, 2011).

Mahoney and Bergman (2002) described the importance of engaging in student activities inside and outside school. They determined participation in student activities alleviated depression. The study analyzed developmental processes by which individuals

attain unusually favorable adjustment patterns given their background and available resources.

Gallup describes students' levels of well-being as how they evaluate their lives and the extent to which they report positive daily experiences. Nearly four in 10 students (38%) reported having a "positive yesterday" — that is, they responded "yes" to all four daily experience questions. These students were more likely to be hopeful and engaged, and they were more likely than their peers who reported negative experiences to evaluate their overall lives positively. Together, these eight well-being elements provide a useful gauge for leaders seeking to build a positive school environment to help set students up for long-term success (2014).

Summary

Learner-centered skills help develop young minds and promote genuine student engagement, thus increasing achievement. Focusing on academic outcomes of "compensatory learning models should help us realize that we need more-creative approaches. We also need an infusion of motivationally rich experiences into the curriculum that will promote engagement, increase enjoyment, and produce a genuine enthusiasm for learning" (Renzulli, 2008).

Freire made clear that pedagogy at its best is not about training in techniques and identical methods to be imposed on all students. Education is a political and moral practice that provides the knowledge, skills, and social relations that enable students to explore for themselves the possibilities of what it means to be engaged citizens, while expanding and deepening their participation in the promise of a substantive democracy. According to Freire, critical pedagogy afforded students the opportunity to read, write,

and learn from a position of agency - to engage in a culture of questioning that demands far more than competency in rote learning and the application of acquired skills (Giroux, 2010).

Renzulli's enrichment clusters parallel the Freirean concept of "problem posing" education (Freire, 1970, p. 79), in which teachers and students are co-investigators of authentic and meaningful problems that arise from their everyday experiences (Allen, Robbins, Payne, & Brown, 2016). This approach to learning results in students who are able to think more critically and creatively about the world they inhabit. According to Renzulli, "Knowledge is authentic and project-based, rather than being storage-and retrieval-based" (McLester, 2012, p. 70). To produce creative thinkers, leaders, and problem solvers, we as educators need to advocate for methods that go beyond traditional instruction and encourage creative problem solving.

To determine the criteria that actually correlates with student engagement, the researcher reviewed the literature on personalized learning strategies using technology, relationship building, and offering differentiated outcome measures as components of personalized learning. The researcher is interested in examining the relationship of the students' participatory action and teacher approaches to engage youth as meaning makers about their literate identities and the literate spaces they inhabit and create, through the engagement of multiple modes of inquiry and representation.

Chapter 3

Methods

Overview of Purpose

This study examines the influence that personalized learning has on student engagement and poverty status. The purpose of this study is to contribute to the body of literature that describes the relationship of student perceptions of personalized learning and student engagement. The researcher examines the quantitative response to reveal the relationship between the two fore-mentioned variables with the poverty rate in the individual buildings. The regression analysis detects estimated predictors. First, this study seeks to gain understanding of the personalized learning practices of a small metropolitan school district and measure the predictability of student engagement scores. Second, it intends to gain understanding of the influence, if any, of student engagement scores on demographic characteristics measured by free/reduced lunch prices. Third, the study sought to add to the current body of literature on student engagement, specifically as it pertains to influence the culture of the educational community. This research also hopes to inform district policy and practice by providing relevant information on the influence of personalized learning and engagement at the elementary level. Intellectual contributions of the study include additional perspective to the Pedagogy of the Oppressed and Hope by examining the power of voice and choice in learning overcoming pockets of poverty.

Research Design

This correlational study examines the influence that personalized learning has on student engagement and poverty status. A correlation is a statistical technique that is

used to measure and describe a relationship between two variables. The two variables are simply observed and not manipulated in any way. The purpose of this study is to examine the relationship of student perceptions of personalized learning and student engagement. According to Gravetter and Wallnau, correlational measures give an indication of prediction, validity, reliability and theory verification (2009). For this study, the researcher has examined the literature and found many articles linking personalized learning and engagement, yet few empirical studies have been conducted to test the theory. The researcher will test the theory to determine if specific predictions about the relationship of two variables personalized learning and student engagement are correlated. “The prediction of the theory could be tested by determining the correlation between the two variables” (Gravetter, & Wallnau, 2009, p. 525).

Research Questions

Is there a difference of student engagement and realization of personalized learning in elementary schools with a high population of students qualifying for free/reduced lunch?

The following questions are addressed and answered in this study:

Question 1: What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 8 which asks “I feel like most of my teachers know me well” to the engagement score measured by Gallup?

Question 2: What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 9 which asks “I feel like most of my teachers know how I learn best” to the engagement score measured by Gallup?

Question 3: What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item #10 which asks “Throughout the day, I feel my teachers ask for my ideas” to the engagement score measured by Gallup?

Question 4: What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 11 which asks “Throughout the day, I feel like I have choices in my learning” to the engagement score measured by Gallup?

Question 5: What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item #12 which asks “Throughout the day, I have opportunities to learn with other students” to the engagement score measured by Gallup?

Question 6: What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 13 which asks “if I already know something, my teacher allows me to learn more about the topic in a different way” to the engagement score measured by Gallup?

Question 7: What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 3 which asks “I learn better when I use technology” to the engagement score measured by Gallup?

Question 8: What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 4 which asks “I can focus better and understand more when I use technology” to the engagement score measured by Gallup?

Question 9: What is the relationship between building level engagement scores measured by Gallup to the building level rank in free or reduced price lunch eligibility?

Subjects

The metropolitan school district examined in this study is an award-winning district located in the Midwest region of the United States. In 1958, the district began innovating by introducing foreign language education to third graders. The gifted and talented program followed in 1964. In 1966, a student exchange program began. In the early 1970's the subject district was the first district in the state to adopt the full-inclusion model for students with special needs. In the early 2000's the district was the first in the state to provide laptops to each student. The district continues innovating educational practices by utilizing technology, personalizing learning, examining strategic planning through reflective practices, and continues to create a broader and richer definition of student success.

The district at the time of the study served 6,173 students in pre-kindergarten through the 12th grade as recorded for the 2013-14 school year. Thirty-one percent of the students are eligible for free or reduced-price meals. The subject district has a single high school (grades 9-12), one middle school (grades 7-8), one secondary Career Center (grades 10-12) and 10 neighborhood elementary schools. There are 10 locations operating a Before and After School Age program. Six of the 10 locations operate preschool and extended learning, full-day care for children 3 to 5 years. Two of the six full-day locations operate toddler programs for ages 18 months to 3 years. Almost 800 students are enrolled in the school-age child care program, and almost 400 children are enrolled in the early childhood program (Westside Community Schools, 2015). The

ten elementary school buildings, one middle school and two high schools are the subjects of this study.

According to Hanover Research, 68% of teachers reported using new technology within the month they completed the survey (2015, p.13). Regarding the impact of using technology, 90% of teacher respondents either strongly agree (36%) or agree (54%) that technology use in the classroom can enhance learning for all students. Teachers implement ‘voice and choice’ in student assignments and activities about 50% of the time in a typical 10 day teaching cycle (2016).

Instrumentation

The researcher examined the data collected by the subject school district by elementary building levels from the WCS Strategic Plan Student Survey, the Gallup Student Poll engagement scores, and building level free and reduced price lunch percentages.

WCS Strategic Plan Student Survey

In February 2016, Hanover Research presented the school district with the results of the Strategic Plan Staff and Student Survey Analysis. The surveys were intended to measure students’ learning experience and teachers’ instructional practices. The six questions related to personalized learning were created by a Delphi Team comprised of the school district’s assistant superintendent, technology integrationist, three university professors, and a graduate assistant. The questions were piloted in 2015 in two third grade classrooms, two fifth grade classrooms, two middle school content areas and two high school content classes. Observing the piloted surveys, the Delphi Team decided to

revise the elementary questions slightly to clarify academic language to an age-appropriate audience.

Scale of Measurement WCS Strategic Plan Student Survey

The survey measured four components. The first two components were the measurement of student perception of personalized learning. These variables were measured by six questions. The subjects were given a survey using a Likert Scale with zero representing no agreement to five representing complete agreement. The variables were measured with a numerical score. A mean of student and teacher perceptions of personalized learning was calculated along with a percentage score per each item on the Likert Scale. The last two components, teacher perceptions of personalizing learning practices, student-teacher relationships and level of participation in the SAMR model was measured by 10 questions utilizing a Likert Scale with zero representing no agreement with the statement to five representing complete agreement with the statement. A mean was calculated along with a percentage score per each item on the Likert Scale. Each school building in the district was assigned a percentage of agreement to the survey item and then ranked.

Gallup Student Poll

The Gallup Student Poll tracks the hope, engagement, and well-being of students in fifth through 12th grade across America. Hope is composed of the ideas and energy students have for the future, engagement describes students' involvement in and enthusiasm for school and well-being involves how students think about and experience their lives. Gallup conducts the interviews through a Web-based survey. In the fall of each year, students from a convenience sample of schools and districts complete the

online poll. Gallup does not randomly select schools for participation in the annual poll, charge to administer the poll, or give incentives, apart from providing school-specific data to participating schools. Gallup does not weight the Student Poll samples because the samples are not randomly drawn from a larger population; they are instead a convenience sample of participating schools and students. The researcher used the Gallup definition of student engagement described as “the involvement in and enthusiasm for school, reflects how well students are known and how often they get to do what they do best (Gallup, 2014). Each school building was assigned an engagement score and then ranked.

Measuring Poverty Level

Poverty can mean many things to many people. For this study the researcher used the National School Lunch Program (NSLP) definition and calculation of poverty by describing the percentage of students in each school building that qualified for free or reduced priced lunches. The NSLP was established under the National School Lunch Act in 1946 and was most recently extended by Congress in 2004 under the Child Nutrition and Women, Infants and Children Reauthorization Act of 2004 (P.L. 108- 265). The Food and Nutrition Service (FNS) of the U.S. Department of Agriculture administers the NSLP, which provides free meals to eligible children in households with income at or below 130% of the federal poverty guidelines, and reduced-price meals to eligible children in households with income above 130% and at or below 185% of these guidelines (U.S. Department of Agriculture, 2006). Each school building was measured by the percentage of students that qualified for free or reduced price lunches and then ranked.

Validity

Many aspects must be considered when using surveys to gather high quality data (Mora, 2011). Since validity is concerned with measuring what is intended to be measured, three areas must be addressed; construct validity, internal validity, and external validity (Creswell, 2012). Construct validity, also called content validity, is focused on creating questions that research the intended issue without excluding related subjects (Mora, 2011).

Since the WCS Strategic Plan Student Survey had not been previously administered, validity needed to be established. The Delphi Team reviewed and edited the questions. After completing the editing process, the survey was field tested. The pilot study was conducted to determine validity, reliability, and output configuration. According to Creswell, a pilot is implemented with around 15% of the sample population (2012). This research required 160 participants to be sufficient for the pilot.

The results obtained from the WCS Strategic Plan Student Survey pilot reflected the intended purpose of examining student perception of personalized learning (Core Strategy 2, Westside Community Schools Strategic Plan, 2014) and therefore was found valid.

Reliability

In order for a survey to be reliable, it must be able to repeat information upon each instance of administration (Burton & Mazerolle, 2011). Upon completion of the pilot survey, the Delphi Team reviewed the results. The results appeared to be consistent with the sample. According to Hopkins, Stanley, and Hopkins (1990) the validity of an instrument can be described in terms of the “accuracy of specified inferences made from

its scores” (p. 76). The context of the WCS Strategic Plan Student Survey determined levels of student perception of authentic and personalized learning.

Data Collection

The University of Nebraska at Omaha requires all investigators, study personnel, and protocol coordinators, including student researchers, engaged in human subjects research to undergo training in the protection of human subjects utilizing the Collaborative IRB Training Initiative (CITI). The researcher requested permission and the submission was reviewed and approved by IRB prior to initiation and then conducted in full compliance with the federal regulations and institutional policies. Permission from the research school district personnel was obtained before data was collected and analyzed. The data from the WCS Strategic Plan Student Survey and the Gallup Student Poll was conducted in a public school setting during a regularly scheduled school day. Data was stored on the district’s secure server and backed up on an external hard drive. No individual student identifiers are attached to the data. Once the data was released to the researcher, it was stored and analyzed on the university computer located in the Educational Leadership Graduate Assistants’ office located in Roskens Hall University of Nebraska at Omaha.

Data Analysis

The Spearman correlation is used to measure consistency of a directional correlation between variables ranked on an ordinal scale. When two variables are consistently related, their ranks will be linearly related thus creating a straight line. Spearman is used when one wants to measure the consistency of the relationship independent of the specific form of the relationship.

To compute the Spearman correlation, the X and Y values must first be ranked. Instead of using the Pearson formula, the ranked data can be analyzed using the simplified formula $r_s = \rho = 1 - \frac{6 \sum d^2}{n(n^2 - 1)}$. The D is the difference between the X rank and the Y rank for each individual case. The signed difference scores are squared that can be used as a check for accuracy, as the D's scores add up to zero. The correlation is measuring the strength of the relationship between the two variables. A large correlation nearest to ± 1.00 indicates there is a consistent, predictable relationship between X and Y variable.

Each research question on the WCS Strategic Plan Student Survey was computed using the Spearman correlation by entering the X and Y ranked data. Each elementary school building was coded a random assignment as listed by Building A-J.

Subsequently, each building's engagement score will be examined for a relationship with the control variable of building level free or reduced price lunch percentage. According to Sirin (2005), socioeconomic status (SES) can be measured as a stratifying variable to increase the precision of an instrument, as descriptive variable to define populations or as a predictor variable.

Chapter Four

Results

The purpose of this correlation study was to explore and describe the relationship between student perception of personalized learning and student engagement, and student engagement and poverty level. This correlational study utilized survey results to explore connections and determine the strength of the relationships of the two variables with student engagement. Two computerized surveys were administered to the participants of the study and the results were recorded by the researcher. Chapter Four presents the results and findings of this research. The tables express the building percentage, Spearman rank order for the questions and whether or not the results were statistically significant or not regarding personalized learning and student engagement. The strength of the relationship determined by effect size will be discussed in Chapter Five.

The study analyzed 10 elementary building outcomes on the WCS Strategic Plan Student Survey and Gallup Student Poll. The overarching question for this research study was designed to explore student perceptions of personalized learning and their relationship to student engagement. Table 1 displays the aggregated scores of all ten elementary buildings student responses by question on the Westside Community Schools Strategic Plan Student Survey. The survey was designed to measure the district's educational focus of personalized learning. The researcher used the Top 2 score that combined strongly agree and agree for the purposes of the study.

Table 1

Descriptive Statistics for Student Perceptions Personalized Learning

Technology use in class can improve the quality of my learning.			
	Sample Size	790	
	<i>Top 2</i>	704	89%
	Strongly agree	293	37%
	Agree	411	52%
	Disagree	69	9%
	Strongly disagree	17	2%
I feel like I am more focused and understand more when I use technology in school.			
	Sample Size	790	
	<i>Top 2</i>	625	79%
	Strongly agree	220	28%
	Agree	405	51%
	Disagree	139	18%
	Strongly disagree	26	3%
I feel like most of my teachers know me well.			
	Sample Size	790	
	<i>Top 2</i>	719	91%
	Strongly agree	373	47%
	Agree	346	44%
	Disagree	55	7%
	Strongly disagree	16	2%
I feel like most of my teachers know how I learn best.			
	Sample Size	790	
	<i>Top 2</i>	681	86%
	Strongly agree	292	37%
	Agree	389	49%
	Disagree	91	12%
	Strongly disagree	18	2%

Throughout the day, I feel my teachers ask for my ideas.

Sample Size	790	
<i>Top 2</i>	550	70%
Strongly agree	143	18%
Agree	407	52%
Disagree	179	23%
Strongly disagree	61	8%

Throughout the day, I feel I have choices in my learning.

Sample Size	789	
<i>Top 2</i>	592	75%
Strongly agree	203	26%
Agree	389	49%
Disagree	151	19%
Strongly disagree	46	6%

Throughout the day, I have opportunities to learn with other students.

Sample Size	789	
<i>Top 2</i>	744	94%
Strongly agree	330	42%
Agree	414	52%
Disagree	35	4%
Strongly disagree	10	1%

If I already know something, my teachers allow me to learn more about the same topic in a different way.

Sample Size	789	
<i>Top 2</i>	579	73%
Strongly agree	205	26%
Agree	374	47%
Disagree	167	21%
Strongly disagree	43	5%

My teachers ask me to read, write, and discuss ideas with others about what we have learned.

Sample Size	396	
<i>Top 2</i>	365	92%
Strongly agree	180	45%
Agree	185	47%
Disagree	22	6%
Strongly disagree	9	2%

Research Question 1

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 8 which asks “I feel like most of my teachers know me well” to the engagement score measured by Gallup? As seen in Table 2, a correlation for the data revealed that there was not a significant relationship between the Personalized Learning Score for students feeling teachers knowing them well and the Gallup Engagement score, $r_s = +0.340$, $n = 10$.

Table 2

Spearman Rank-Order Correlation Coefficient for WCS Strategic Plan Student Survey Personalized Learning Score item # 8 which asks “I feel like most of my teachers know me well” and Gallup Engagement Score

School	PL 1 (8)		Gallup		r_s
Building	Know well	PL1 rank	Engage 2015	Gallup rank	
Building A	86	9	63	9.5	
Building B	93	5.5	82	2	
Building C	91	7	74	4	
Building D	80	10	63	9.5	
Building E	96	2	79	3	
Building F	88	8	67	6	
Building G	93	5.5	84	1	
Building H	94	3.5	66	7.5	
Building I	94	3.5	70	5	
Building J	97	1	66	7.5	
					0.340ns

Research Question 2

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 9 which asks “I feel like most of my teachers know how I learn best” to the engagement score measured by Gallup? As seen in Table 3, a correlation for the data revealed that there was not a significant relationship between the Personalized Learning Score for students feeling teachers know how they learn best and the Gallup Engagement score, $r_s = +0.123$, $n = 10$.

Table 3

*Spearman Rank-Order Correlation Coefficient for WCS Strategic Plan Student Survey
Personalized Learning Score item # 9 which asks “I feel like most of my teachers know
how I learn best” and Gallup Engagement Score*

School	PL 2 (9)		Gallup		
Building	Learn best	PL 2 rank	Engage 2015	Gallup rank	r_s
Building A	82	10	63	9.5	
Building B	89	3	82	2	
Building C	84	8	74	4	
Building D	85	6.5	63	9.5	
Building E	90	2	79	3	
Building F	85	6.5	67	6	
Building G	83	9	84	1	
Building H	87	4.5	66	7.5	
Building I	87	4.5	70	5	
Building J	92	1	66	7.5	
					0.123ns

Research Question 3

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item #10 which asks “Throughout the day, I feel my teachers ask for my ideas” to the engagement score measured by Gallup? As seen in Table 4, a correlation for the data revealed that there was not a significant relationship between the Personalized Learning Score for students feeling teachers ask for their ideas and the Gallup Engagement score, $r_s = +0.265$, $n = 10$.

Table 4

*Spearman Rank-Order Correlation Coefficient for WCS Strategic Plan Student Survey
Personalized Learning Score item# 10 which asks “I feel like my teacher asks for my
ideas” and Gallup Engagement Score*

School	PL 3 (10)		Gallup		
Building	Ask ideas	pl3 rank	Engage 2015	Gallup rank	r_s
Building A	65	9.5	63	9.5	
Building B	77	1.5	82	2	
Building C	75	3	74	4	
Building D	69	5.5	63	9.5	
Building E	70	4	79	3	
Building F	65	9.5	67	6	
Building G	68	7.5	84	1	
Building H	69	5.5	66	7.5	
Building I	68	7.5	70	5	
Building J	77	1.5	66	7.5	
					0.265ns

Research Question 4

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 11 which asks “Throughout the day, I feel like I have choices in my learning” to the engagement score measured by Gallup? As seen in Table 5, a correlation for the data revealed that there was not a significant relationship between the Personalized Learning Score for students’ perception of having choices in their learning and the Gallup Engagement score, $r_s = +0.184$, $n = 10$.

Table 5

*Spearman Rank-Order Correlation Coefficient for WCS Strategic Plan Student Survey
Personalized Learning Score item# 8 which asks “I feel like I have choices in my
learning” and Gallup Engagement Score*

School	PL 4 (11)		Gallup		
Building	Choice	PL4 rank	Engage 2015	Gallup rank	r_s
Building A	75.00	5.00	63	9.5	
Building B	73.00	7.00	82	2	
Building C	78.00	4.00	74	4	
Building D	69.00	10.00	63	9.5	
Building E	72.00	8.50	79	3	
Building F	72.00	8.50	67	6	
Building G	83.00	1.00	84	1	
Building H	79.00	2.50	66	7.5	
Building I	74.00	6.00	70	5	
Building J	79.00	2.50	66	7.5	
					0.184ns

Research Question 5

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item #12 which asks “Throughout the day, I have opportunities to learn with other students” to the engagement score measured by Gallup? As seen in Table 6, a correlation for the data revealed that there was not a significant relationship between the Personalized Learning Score for students feeling teachers provide opportunities to learn with other student and the Gallup Engagement score, $r_s = -0.277$, $n = 10$.

Table 6

Spearman Rank-Order Correlation Coefficient for WCS Strategic Plan Student Survey

Personalized Learning Score item #12 which asks “Throughout the day, I have opportunities to learn with other students” and Gallup Engagement Score

School Building	PL 5 (12)		Gallup		r_s
	Learn with Others	PL 5 rank	Engage 2015	Gallup rank	
Building A	93.00	7.50	63	9.5	
Building B	93.00	7.50	82	2	
Building C	97.00	1.50	74	4	
Building D	95.00	4.50	63	9.5	
Building E	96.00	3.00	79	3	
Building F	94.00	6.00	67	6	
Building G	88.00	10.00	84	1	
Building H	97.00	1.50	66	7.5	
Building I	92.00	9.00	70	5	
Building J	95.00	4.50	66	7.5	
					-0.277ns

Research Question 6

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item #13 which asks “if I already know something, my teacher allows me to learn more about the topic in a different way” to the engagement score measured by Gallup? As seen in Table 8, a correlation for the data revealed that there was not a significant relationship between the Personalized Learning Score for students’ perception of having choices in their learning and the Gallup Engagement score, $r_s = +0.101$, $n = 10$.

Table 7

Spearman Rank-Order Correlation Coefficient for WCS Strategic Plan Student Survey

Personalized Learning Score item #13 which asks “if I already know something, my

teacher allow me to learn more about the topic in a different way” and Gallup

Engagement Score

PL 6 (13)					r_s
Learn					
School Building	Different Way	PL 6 rank	Gallup Engage 2015	Gallup rank	
Building A	71.00	8.00	63	9.5	
Building B	75.00	3.00	82	2	
Building C	73.00	4.50	74	4	
Building D	72.00	6.00	63	9.5	
Building E	73.00	4.50	79	3	
Building F	76.00	2.00	67	6	
Building G	71.00	8.00	84	1	
Building H	85.00	1.00	66	7.5	
Building I	70.00	10.00	70	5	
Building J	71.00	8.00	66	7.5	
					0.068ns

Research Question 7

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 3 which asks “I learn better when I use technology” to the engagement score measured by Gallup? As seen in Table 8, a correlation for the data revealed that there was not a significant relationship between the Personalized Learning Score for students’ perception of having choices in their learning and the Gallup Engagement score, $r_s = +0.101$, $n = 10$.

Table 8

Spearman Rank-Order Correlation Coefficient for WCS Strategic Plan Student Survey

Personalized Learning Score item #13 which asks “I learn better when I use technology”

and Gallup Engagement Score

PL 7 (3)					
Tech					
School	Improves		Gallup		r_s
Building	Learning	PL7 rank	Engage 2015	Gallup rank	
Building A	86.00	7.50	63	9.5	
Building B	84.00	9.00	82	2	
Building C	91.00	4.00	74	4	
Building D	95.00	2.00	63	9.5	
Building E	96.00	1.00	79	3	
Building F	90.00	5.50	67	6	
Building G	93.00	3.00	84	1	
Building H	90.00	5.50	66	7.5	
Building I	85.00	10.00	70	5	
Building J	86.00	7.50	66	7.5	

0.101ns

Research Question 8

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 4 which asks “I can focus better and understand more when I use technology” to the engagement score measured by Gallup? As seen in Table 8, a correlation for the data revealed that there was not a significant relationship between the Personalized Learning Score for students’ perception of having choices in their learning and the Gallup Engagement score, $r_s = -0.151$, $n = 10$.

Table 9

Spearman Rank-Order Correlation Coefficient for WCS Strategic Plan Student Survey

Personalized Learning Score item #4 which asks “I can focus better and understand more when I use technology” and Gallup Engagement Score

PL 8 (10)					r_s
Tech					
School	Improves	Gallup			
Building	Focus	PL 8 rank	Engage 2015	Gallup rank	
Building A	78.00	6.50	63	9.5	
Building B	70.00	10.00	82	2	
Building C	80.00	4.50	74	4	
Building D	82.00	2.00	63	9.5	
Building E	81.00	3.00	79	3	
Building F	87.00	1.00	67	6	
Building G	78.00	6.50	84	1	
Building H	76.00	8.50	66	7.5	
Building I	80.00	4.50	70	5	
Building J	76.00	8.50	66	7.5	
					-0.151ns

Research Question 9

What is the relationship between building level engagement scores measured by Gallup to the building level rank in free or reduced price lunch eligibility? As seen in Table 10, a correlation for the data revealed that there was a significant relationship between the Gallup Engagement score and the building level rank in free or reduced price lunch eligibility, $r_s = +0.671$, $p = .034$, $n = 10$.

Table 10

Spearman Rank-Order Correlation Coefficient for Gallup Engagement Score and Building Rank for Free or Reduced Price Lunch Eligibility

School		Gallup			r_s
Building	FRPL	FRPL rank	Engage 2015	Gallup rank	
Building A	43.93	3.00	63	9.5	
Building B	21.77	6.00	82	2	
Building C	18.90	8.00	74	4	
Building D	38.81	4.00	63	9.5	
Building E	18.48	9.00	79	3	
Building F	21.94	5.00	67	6	
Building G	16.77	10.00	84	1	
Building H	19.18	7.00	66	7.5	
Building I	52.26	2.00	70	5	
Building J	58.50	1.00	66	7.5	
					0.671ss

Chapter Five

Findings

Discussion of Effects

Chapter Four discussed statistical tests of significance and states the correlation coefficients. While the only one of the research questions answered as statistically significant, the researcher examined the statistical tests correlation coefficients as descriptive statistics that indicate the strength of relationship. The statistical test tells us whether the correlation is significantly different from zero; the absolute value of the correlation coefficient is an effect size that summarizes the strength of the relationship.

Psychological research uses Cohen's (1988) conventions to interpret effect size. The most common effect-size measure, as the correlation/regression coefficients r and R are actually measures of effect size. Because r covers the whole range of relationship strengths, from no relationship whatsoever (zero) to a perfect relationship (1, or -1), it is telling us exactly how large the relationship really is between the variables studied independent of how many people were tested. Cohen provided rules of thumb for interpreting these effect sizes, suggesting that an r of $|.1|$ represents a 'small' effect size, $|.3|$ represents a 'medium' effect size and $|.5|$ represents a 'large' effect size. In Cohen's terminology, a small effect size is one in which there is a real effect, "something is really happening in the world but which you can only see through careful study" (1988). A 'large' effect size is an effect which is big enough, and/or consistent enough, that you may be able to see it 'with the naked eye'. Cohen describes an example by looking at a room full of people, one might determine that on average, the men were taller than the women -- this is what is meant by an effect which can be seen with the

naked eye (actually, the d for the gender difference in height is about 1.4, which is really large, but it serves to illustrate the point). A large effect size is one which is very substantial. The Pearson product-moment correlation coefficient is measured on a standard scale and can only range between -1.0 and +1.0. As such, we can interpret the correlation coefficient as representing an effect size. This effect size or correlation coefficient describes the strength and direction of the relationship between the two variables.

Research Question 1

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 8 which asks “I feel like most of my teachers know me well” to the engagement score measured by Gallup? The strength of the relationship between the variables of student perception of their teachers knowing them well had an effect size $r_s = +0.34$ described as having a medium effect. Getting to know students’ interests as well as academic strengths can assist in personalizing students’ learning plans while increasing involvement and enthusiasm for school. Many personalized learning program plans include icebreaker activities for the students to get to know one another and for the teacher to observe the students unique characteristics as a learner. Educational leaders often look to some new form of instruction, methodology or curriculum to increase student achievement, when the study demonstrates the importance of providing time for teachers and students to get to know one another can have the most important impact on a child’s educational experience. The importance of relationship building should not be overlooked by policy makers in a district that is looking to improve student engagement scores.

There are many strategies for teachers to get to know students that do not necessarily take an exorbitant amounts of time. For example, one intervention technique known as the 2x10 asks the teacher to take two minutes listening and talking to a student for ten days in a row to build a relationship that makes the student feel valued and cared for. In fact educational researcher, Raymond Wlodkowski found an 85-percent improvement in one particular student's behavior. In addition, he found that the behavior of all the other students in the class improved. Taking time to get to know students has a positive impact on student behavior, engagement, and achievement.

Asking students what their interests are and what they are good at reminds all students (even those that struggle or misbehave) that they have individual strengths that can be utilized in the classroom if the teachers take the time to discover them. Including these strengths or talents into their learning plans will correlate to higher engagement scores.

Research Question 2

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 9 which asks “I feel like most of my teachers know how I learn best” to the engagement score measured by Gallup? The strength of the relationship between the variables of student perception of their teachers knowing student learning preferences had an effect size $r_s = +0.123$ described as having a small effect. This is interesting to elementary teachers trying to personalize student learning. Perhaps students are engaged learning using many different styles. Teachers often teach in the manner in which they were taught or the way they learn best. By returning the focus to personalized learning plans and student centered activities, students

are reminded of the relevance and importance of the learning goals as they were involved in creating them.

They must also be provided opportunities for multiple means of expression to demonstrate mastery. Inviting creative thinkers to assist in brainstorming projects that promote multiple means of expression not only will provide collaboration and energy to a professional learning community or lesson planning day, but it will manifest in higher engagement scores in the classroom for all learners.

Research Question 3

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item #10 which asks “Throughout the day, I feel my teachers ask for my ideas” to the engagement score measured by Gallup? The strength of the relationship between the variables of student perception of their teachers asking for their ideas had an effect size $r_s = +0.265$ described as having a small, nearly medium effect. Whereas content and state standards are mandated by the district, students that feel like teachers allow for their ideas to be expressed are more engaged in the educational process and what Freire would also assert – the democratic process. Teachers that build a collaborative culture and a safe environment for students to express their ideas had a positive relationship with student engagement.

With mandated testing and a fast paced curriculum guide, educators can feel pressured to move on to new content areas without allowing students to be truly reflective about the learning process in which they recently participated. Providing time and praise to authentic student thought has a positive correlation to student engagement. Research shows that appropriate and individualized recognition is important for ongoing work

engagement. Building a culture of recognition in a school is critical for increasing student and teacher engagement. Remembering to praise effort, not just achievement is also important to promoting a culture of engagement. Dweck states that "when we praise children for their intelligence, we tell them that this is the name of the game: Look smart, don't risk making mistakes. And that's what the fifth-graders had done: They'd chosen to look smart and avoid the risk of being embarrassed.

Research Question 4

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 11 which asks "Throughout the day, I feel like I have choices in my learning" to the engagement score measured by Gallup? The strength of the relationship between the variables of student perception of having choices in their learning had an effect size $r_s = +0.184$ described as having a small effect (almost medium effect). Most research on personalized learning tenants have a major component of offering student voice and choice when providing learning activities. Proponents of personalized learning assert students having choices in their learning promotes motivation for students to read and write outside of school. The student will be much more likely to participate, even when the task is difficult if the topic has been selected by the student, something they feel strongly about, or are interested in.

Many students approach assignments as something to get through without understanding the relevance of those assignments to their lives. Many try to avoid assigned reading because for them reading is an unpleasant, arduous, and unrewarding task; for some middle and high school students, their decoding and basic fluency skills are too limited to read grade-level textbooks. Often, however, many of these same students are able to persevere with difficult reading if they are interested in the subject at hand and if they get appropriate help—that is, if they can be motivated and supported to *engage* with the task (Irvin, Meltzer & Dukes, 2007).

Providing opportunities for choice, control, and collaboration are important strategies for increasing student engagement and academic achievement. “Young people are likely to be more motivated and engaged in an activity when they feel they have a voice in how it is conducted and can affect how it concludes” (Toshalis & Nakkula, 2012).

Research Question 5

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item #12 which asks “Throughout the day, I have opportunities to learn with other students” to the engagement score measured by Gallup? The strength of the relationship between the variables of student perception of having opportunities to work with other students had an effect size $r_s = -0.277$ described as having a small, nearly medium effect. This negative relationship is interesting as it demonstrates individual student preference of some students preferring to work independently. Group learning activities can often diverge from the intended learning target as students in the elementary grades are still learning cooperative learning skills and impulse control.

Educational leaders looking to improve student engagement will honor the “one size does NOT fit all approach”. Many policy makers have been told all students learn better in groups and therefore have mandated the structure reading instruction opportunities be assigned according to homogeneous groups of readers. Where this might be an appropriate structure for some students some of the time, it is important for educators to note students preferred learning styles. This research indicates the importance of adhering to a personalized plan where the learners are allowed to learn

according to their personal level as well as preferred learning styles. Becoming aware of the negative correlation will prevent educators from falling into the habit of providing group instruction as the sole method of instruction.

Research Question 6

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 13 which asks “if I already know something, my teacher allow me to learn more about the topic in a different way” to the engagement score measured by Gallup? The strength of the relationship between the variables of student perception of having opportunities to work with other students had an effect size $r_s = 0.068$ described as having a no effect. Instructionally speaking, this result is quite revealing to the researcher and classroom teachers. Offering students extension activities is an excellent method for keeping students engaged when they have already mastered the basics of the content presented. Pushing students to learn more about a topic in multiple modalities helps to increase engagement as well as take students to deeper levels of taxonomies. Further research should be done by the district to discover if the variables had no effect due to the lack of a relationship, or lack of opportunity to take learning to a deeper level once basic mastery is acquired. The raw data of the study suggests 73.7% of the elementary students do agree they have this opportunity.

Providing what each child needs to develop to help them continuously grow and excel can be difficult. The relationship between providing enough opportunities to master content, increase resilience and academic stamina while trying to increase engagement demonstrates the importance of creating a holistic educational plan for students. Teachers, parents and children all need to work together to create the challenges,

opportunities and supports necessary to encourage the development of a child's potential to its maximum level.

Research Question 7

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 3 which asks "I learn better when I use technology" to the engagement score measured by Gallup? The strength of the relationship between the variables of student engagement and student perception of having opportunities to use technology when learning had an effect size $r_s = 0.101$ described as having a small effect. The students that responded positively in the open-response section cited reasons for technology improving learning included: "I studied a lot better on fractions.", "I learned more about math on DreamBox.", "Raz-kids because it gives me books that are at my level and not too easy for me. And Dreambox because its helping me with my math. And the last one is spelling city because it helps you spell and check your spelling. And some videos that my teacher shows." And "When I went on google classrooms after I got back from when I was sick it helped me catch up. It was successful because it was easy to catch up." The raw data demonstrated 89.6% of students agreed that technology improved learning. Further research is recommended to determine how student engagement can be increased by utilizing technology. As this study indicates, not all learners prefer using technology. This again emphasizes the study's earlier results of getting to know students and building a positive relationship as the primary focal point for educational leaders who are trying to increase engagement. It can be tempting for school boards and policy makers to "jump on the band wagon" of providing one to one technology even when it places a strain on already stretched district

budgets. Where there are very important uses for technology in the classroom, this study presents the higher correlation coefficients with student/teacher relationships student engagement.

Research Question 8

What is the relationship between student perceptions of personalized learning as measured by WCS Strategic Plan Student Survey item # 4 which asks “I can focus better and understand more when I use technology” to the engagement score measured by Gallup? The strength of the relationship between the variables of student engagement and student perception of focusing better and understand more when they use technology had an effect size $r_s = -0.151$ described as having a small negative effect. The raw data demonstrated that 78.8% of student agreed that technology improved focus and helped them learn better, however it did not have a positive relationship with the Gallup Student Poll’s Engagement score.

Research Question 9

What is the relationship between building level engagement scores measured by Gallup to the building level rank in free or reduced price lunch eligibility? The strength of the relationship between the variables of student engagement and building free and reduced price lunch had an effect size $r_s = -0.671$ described as having a large negative effect. This was statistically significant at the $p = .034$ level. The latest data collected from the states by the National Center for Education Statistics (NCES), show that 51.3% of the students across the nation’s public schools were low income, and therefore qualified for free or reduced price lunch in 2013 (NCES, 2015). Student eligibility for FRPM serves as a proxy measure of family poverty, as the federal poverty threshold

tends to underestimate the extent of poverty, particularly in high cost areas. This alarming statistic illuminates the impact of poverty in the classroom. The correlation of disengagement and poverty is not a surprise. The lesson for educators is to examine the disengagement and determine from where the root is growing.

Often educators too often see disengagement as a lack of effort or motivation. According to Butterworth et al., one reason many students seem unmotivated is because of lack of hope and optimism. Low socioeconomic status and the accompanying financial hardships are correlated with depressive symptoms (Butterworth, Olesen, & Leach, 2012). Moreover, the passive "I give up" posture may actually be learned helplessness, shown for decades in the research as a symptom of a stress disorder and depression. Research from 60 high-poverty schools tells us that the primary factor in student motivation and achievement isn't the student's home environment; it's the school and the teacher (Irvin, Meece, Byun, Farmer, & Hutchins, 2011). Effort, motivation, and hope can be taught, and teachers that build relationships with their students do this every day. Investing time and energy into students who are not engaged is critical. In a study of more than 1,800 children from poverty, school engagement was a key factor in whether the student stayed in school (Finn & Rock, 1997). Educators working in populations of high poverty might be encouraged by the findings of this study. It does not take a large scale initiative or bond issue to pass to increase funding for technology to increase student engagement scores. Where technology is very useful as a learning tool, many students are very interested and engaged by technology, the greatest correlation coefficients were seen in the areas of students' perceptions of feeling known by their teachers.

According to Gallup Student Poll (2015) n= 867,454, the U.S. overall scores are as follows, 50% of students are engaged, 29% are not engaged and 21% are actively disengaged. (See appendix Table 11 for Westside Community Schools Engagement grandmeans compared to the U.S. Overall scores.)

Conclusion

Knowing that poverty levels have been (and may continue to be on the rise) and seeing the correlation of poverty and engagement can make educators feel hopeless. Keeping students engaged as they advance on their educational path has proven to be difficult. Watching student engagement scores decrease as they progress from elementary to high school is a national trend. However, this research demonstrates the importance of the Pedagogy of Hope, promoting student voice and empowerment, and demonstrates the mathematical measurements of effect sizes of teacher/student relationships having a positive impact on engagement. The review of literature and strategies the researcher presents comes from a place of hope. Getting to know students on a personal level and adjusting learning according to their unique needs increases student engagement. Educational leaders that are intentional about personalizing learning and committed to keeping students engaged must not ignore the fundamental need addressed in Chapter One – Hope.

“Without a minimum of hope, we cannot so much as start the struggle” (Freire, 1994). With the numbers of students living in poverty increasing in our schools, educational leaders must act from a position of hope. Hope not as the simple wishing for something to happen. Rather, hope as an action plan, the investment in the future paying off today. Wishful thinking is an undependable emotion that has no actual power to

produce positive results for students. Hope is the knowledge of solid facts, concretely anchored to the soul actively engaged making educational decisions today that will impact our tomorrow.

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Appendix

Respondents completed the Gallup Poll (Engagement scores reported only) which utilized a Likert scale ranging from 1-5 with 1 representing strongly disagree, 2 representing disagree, 3 representing neutral, 4 representing agree, 5 representing strongly agree. Gallup aggregated the scores into three categories; engaged, not engaged, and actively disengaged. The researcher used the percent of engaged students for each elementary building as the engagement score for the purpose of this study. Table 11 displays the engagement grand mean for each question in each elementary building compared to the U.S. Overall. Table 11 demonstrates the elementary buildings high grand means compared to the U.S Overall score.

Table 11

Engagement Grandmeans by Building Compared to the U.S. Overall Score

Building Label	B A	B B	B C	B D	B E	B F	B G	B H	B I	B J	US Overall
Engagement Grandmeans	4.09	4.45	4.32	4.07	4.41	4.28	4.33	4.19	4.26	4.22	3.9
n=	112	78	76	76	87	95	37	80	115	80	867,454
At this school, I get to do what I do best every day.	3.54	4.06	3.77	3.57	3.99	3.99	4.03	3.7	3.86	3.76	3.57
My teachers make me feel my schoolwork is important.	4.21	4.75	4.34	4.1	4.47	4.45	4.41	4.35	4.49	4.3	4.04
I feel safe in this school.	3.97	4.47	4.31	4.15	4.41	4.32	4.46	4.34	4.36	4.34	3.93
I have fun at school.	3.86	4.23	4.01	3.84	4.24	3.91	4.13	3.84	3.89	4.06	3.5
I have a best friend at school.	4.52	4.7	4.65	4.71	4.81	4.56	4.76	4.64	4.64	4.54	4.38
In the last seven days, someone has told me I have done good work at school.	3.9	4.12	4.11	3.7	4.34	4.26	3.78	3.99	4.17	4.01	3.65
In the last seven days, I have learned something interesting at school.	4.13	4.45	4.21	3.78	4.31	4.29	4.21	4.2	4.17	4.28	3.92
The adults at my school care about me.	4.3	4.46	4.41	4.22	4.56	4.22	4.49	4.38	4.37	4.51	3.85
I have at least one teacher who makes me excited about the future.	4.14	4.64	4.55	4.32	4.49	4.52	4.45	4.28	4.25	4.26	4.13