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Inside this issue:

- ◆ Examining Attributions and Perceptions of Family Influences on the Mindset of Junior High School Students in Different Socioeconomic Settings in Ghana Africa
- ◆ The Influence of Parenting Styles on Academic Adjustment and Psychological Well-Being Among Thai University Students Mediated by Internet Addiction and Self-Regulation: A Path Model
- ◆ From the Field:
The Practical Use of Qualitative Research Software in the Analysis of Teacher Observation Documents
- ◆ The Efficacy of Online K-12 School Leadership Preparation Programs
- ◆ The Impact of Co-teaching on Pedagogical Approaches and Student Conceptual Understanding in a Graduate, Adolescent Literacy Course
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 - by George Couros, Author
 - Reviewed by Richard Bernato, Ed.D.

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Telephone: 631-360-0800 x116
Fax: 631-360-8489
Email: rjmanley@optonline.net
jacoffey@scopeonline.us

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Editor's Perspective



Educators from countries in all parts of this earth recognize the importance of effective parenting in the preparation of children for school and citizenship. Parenting styles may differ in degrees of emphasis and outcomes that are related to cultural norms within or among countries. In this issue of the Journal for Leadership and Instruction, researchers from Thailand and Ghana explore the contributions of family influence and parenting styles on the psychological well-being and academic adjustment of students in middle school and university studies. Their research demonstrates the profound impact parenting has on the mindset and self-regulation capacity of a child and much later of a teenager and even a university student.

In September 2018, I published my parental guide to the first 48 months of a child's development with Seattlebookcompany.com. My book, *What Every Child Needs to Know Before Entering School*, deals with parenting practices that expand the natural talents and confident dispositions that a child needs to be happy at school. Brief chapters in the book describe parental playfulness and responsiveness and how through a "process of loving and listening, a parent shapes a child's development of self-control, frustration, tolerance, and respect and love for learning" (Alida Schubert PhD, 2018).

The more pre-schools and pediatricians do to unify the development of parenting skills among new parents, the more effective children in those communities will be as learners. School leaders and teachers continually seek to improve learning among their students often within their buildings and isolated from the larger community and especially the new parents who have a baby to raise. The connection of pre-school educators to new parents

through maternity ward and pediatrician services could enhance child development within a whole community. The barrier to collaborative services that work for the development of children lies with the isolation and separation that these agencies encourage among themselves. Systemic change that improves learning among the children of a community begins with understanding the barriers to learning within the community. Early interventions in child development and parental education can make a world of difference to a child.

In addition to the international research on parenting, we offer in this edition, a research article on the development of school leaders through an accredited online school leadership program in the United States. Also in a personal research experience, a college professor who trains new teachers explains as students with and without learning disabilities are assigned to inclusive classrooms with two teachers in the United States, more research is required. Her research on the training and development of teachers in the skills and demands for effective co-teaching assignments offers valuable and necessary insight.

A case study of one school district's efforts to use qualitative software to analyze the patterns of instruction across multiple classrooms and determine high and low frequencies of desired patterns opens another avenue for discussion. This case analysis from the field presents a thoughtful use of qualitative software and how to understand instructional practices within a school and among schools. In each of these articles, you will find insightful observations that should produce inventive and creative thinking among those who read these studies.

Lastly, we present a book review by Richard Bernato in which he discusses a favorite book of his that deals with innovative thinking among individuals and organizations. We invite readers to share book reviews that introduce the purpose and the value of a book to our subscribers.

Robert J. Manley
Editor-in-Chief

Examining Attributions and Perceptions of Family Influences on the Mindset of Junior High School Students in Different Socioeconomic Settings in Ghana Africa

By Marcellus Gorleku, Ed.D., Sabrina Brancaccio, Ed.D.,
and James R. Campbell, Ph.D.

Abstract

This paper discusses the role and influences of parental involvement and student's motivation on growth mindset. The participants in this study were from three Catholic middle schools in Ghana: One rural all-girls school (N=268); a suburban school (N=448); and an urban school (N=200). Respondents completed Campbell's Inventory of Parental Influence (IPI S6) questionnaire. Six Parental Involvement and three motivational scales were synthesized using exploratory factor analysis. Path analyses were then conducted to determine the factors with direct or indirect impact on growth mindset. Findings indicate direct link between family influences and mindset in all three socioeconomic settings. Also, motivation and parent's expectation have significant direct impact on children's growth mindset.

Background

Parent involvement in their children's education has been the focus of research for decades. Most studies explored diverse home- and school-based involvement factors with findings that largely support students' achievement (Epstein & Saunders, 2002; Hill & Taylor, 2004). However, clear empirical association has not been identified between family processes and children's mindset.

Prior empirical research studies on parental involvement and academic performance in developing countries, specifically Ghana, indicate that parents' involvement is a bi-dimensional construct of home and school (Chowa, Masa, & Tucker, 2013). The role of Ghanaian parents is changing from the traditional home-based activities of talking to their children about education, creating a conducive home environment for learning and ensuring that necessary homework is done to more interaction with the school, attending meetings and school events (Nyarko, 2011; Chowa, et al., 2013). Studies have also shown a positive correlation between motivation and students' achievement. Students require motivational processes to acquire a better use of new skills and knowledge and to transfer them to new situations (Dweck, 1986). Cho & Lin (2011) emphasized that besides having higher scores, highly motivated students also value their ability to solve problems.

Families and teachers influence how their children attribute their success and their actual performance in school. Dweck (2000, 2010) referred to an individual's implicit views of his or her ability as a mindset with either fixed or malleable (growth) traits. People who have a growth mindset believe that intelligence, personality, and abilities can be developed. People with a fixed mindset believe that these basic qualities are static and unalterable. Research has shown that students' mindsets influence their goal setting and academic achievement (Dweck, 2000). Children with malleable mindsets tend to orient toward learning goals which creates motivation and resilience and leads to higher achievement (Dweck, 2007). Thus, growth mindset promotes learning success of children.

Theoretical Framework

Parental involvement is multidimensional (Campbell, 2004; Fan & Chen, 2001). In developing countries parents in urban or rural settings may offer either school- or home-based involvement processes or both depending on requisite education and resources (Chowa, et al, 2013; Chowa, Ansong & Osei-Akoto, 2012; Nyarko, 2011). Some parental involvement dimensions have been identified as key predictors of academic achievement. These include: expectations (Froiland & Davidson, 2014; Froiland, Peterson, & Davidson, 2013); family communication (Jeynes, 2012); and conducive home atmosphere, parental support and family structure (Campbell & Verna, 2004; Fan & Chen, 2001). Several research studies in developed countries, particularly the U.S., identified parents' expectation of how far their children can go in education as linked positively with academic achievement (Fan, 2001; Hong & Ho, 2005).

Prior research also supports a correlation between various parent involvement dimensions and children's motivation and academic achievement. Campbell & Verna (2004) also described effective parenting as substantial nurturing through various parenting processes such as work ethic, communication, homework and the creation of Academic Home Climates (AHC) that generate a series of

beliefs and attitudes and provide needed motivation at home which guides the child's learning process to enhance greater achievement. Student motivation for learning is generally regarded as one of the most critical determinants of the success and quality of any learning outcome (Mitchell, 1992). Both intrinsic and extrinsic motivation has been identified as having a positive relationship to academic achievement (Ryan, Richard & Deci, 2000). Carol Dweck (2007) suggested that an educator's role is to foster motivation in students so that their talents can be developed. This connection between mind-set and motivation is resonant in an individual's attributions, a theoretical framework that concerns how individuals interpret events and how that relates to their thinking and behavior (Weiner, 1974).

Mindsets are implicit theories that individuals hold about their basic qualities (Dweck, 2000). Prior research has correlated self-concept with attributions and mind-set (Campbell & Walberg, 2011) which indicates that mindset manifests in one's attributions and shapes an individual's expectations and self-concept. Blackwell, Trzesniewski and Dweck (2007) posited that a fixed mindset leads to helplessness, whereas a growth mindset leads to resiliency. Students tend to orient toward performance goals when they believe intelligence is a fixed trait, whereas students who believe intelligence is malleable tend to orient towards learning goals. Thus, performance goals focus children on issues of ability while learning goals encourage children to explore, initiate, and pursue tasks that promote intellectual growth with improved academic achievement (Blackwell et al, 2007).

Furthermore, children are motivated to work harder from the interest shown by their parents with resultant academic success (Chowa et al, 2012; Fan & Chen, 2001). But how does engagement of parents in their children's school affect the children's mindset? Could this involvement enhance student's growth mindset? This study provides a basis not only for the identification and isolation of important parental, motivational, and attribution factors that affect student mindset in Ghana, a developing country in Africa, but also for comparing such isolated factors from various cultural and economic settings in a typical developing country.

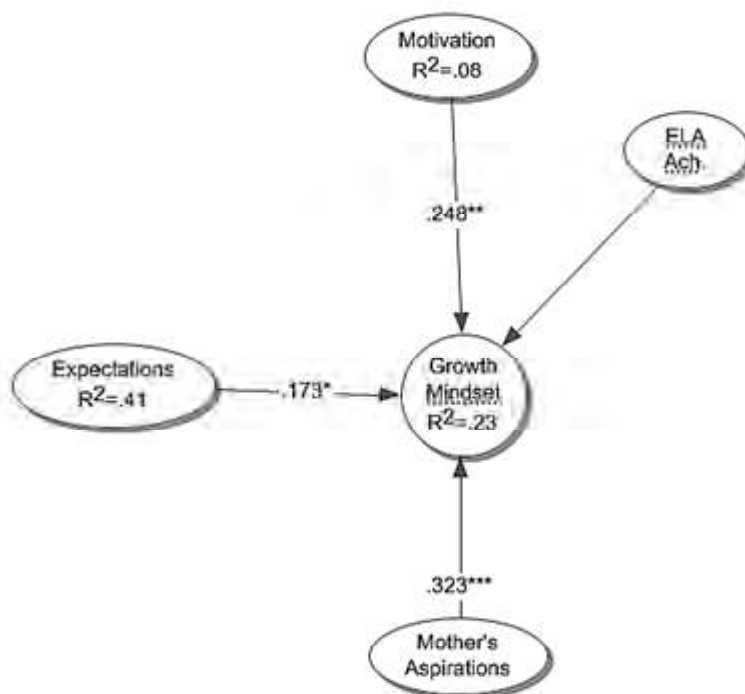
Methodology and Sample

The participants in this study were 7th, 8th and 9th grade students from three Catholic middle schools in Ghana: One rural all-girls school (N=268); a suburban school (N=448); and an urban school in the capital city, Accra (N=200), 595 girls and 312 boys

(total N=907) participated. Campbell's Inventory of Parental Influence (IPI S6) instrument was employed for this study. This IPI S6 designed to measure levels of parental influence on their children from the child's perspective has been previously used for the cross-cultural studies of academic Olympians across the world with good reliability and validity measures (Campbell, 2004). Respondents expressed their degree of agreement or disagreement with a statement (e.g. "My family is enthusiastic about my education") on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). These scales were synthesized using exploratory factor analyses (Principal Component Analyses), including six Parental Involvement scales: Parental Expectations, Support, Pressure, Family Communication (child- and parent- talk), Conducive Home Climate and Community Stimulation; and three Motivational (attribution) scales: Low Ambition, Chia-Yi Lin's (2011) High Motivation Scale and Dweck's (2000) Incremental Belief about Intelligence (BOI) test (pp.177-178). The composite reliabilities of these scales ranged from $P_c=.669$ to $P_c= .890$. Path analyses were then used to assess the psychometric properties of the measurement model (SmartPLS v.3.2.6, Ringle, Wende, & Becker, 2015) and the structural model. Five thousand bootstrap calculations were also used to determine significances for the direct and indirect paths in the model.

Figure 1

Significant path coefficients for the growth mindset in a rural all-girls school



Findings

Researchers found that in all three socioeconomic settings, children's motivation and parent's expectation were significant direct predictors of children's growth mindset. However, within the rural setting the mother's aspirations also had significant direct effect on development of growth mindset (see Figure 1). Thus overall, the more motivated children whose parents had high expectations of their education and, particularly rural girls whose mother's wanted them to attend college, were associated with a growth mindset. Results also show significant direct interactions between parental involvement dimensions with ultimate effect on student's growth mindset.

Table 1 indicates Academic Home Climate (AHC) had three significant connections to Parent's Talk and Support within all three settings; and Child's Talk within the suburban and urban settings; as well as expectations in suburban setting. Also, four parent dimensions namely, AHC, Child Talk, Parent's Talk and Community Stimulation were associated with Parental Support.

However, in the rural setting Parent's education had direct negative association with both parent and child talk. Thus a conducive home climate in a stimulating community is significantly predictive of increased communication between parent and child; more so for parents of lower educational levels in the rural settings; and facilitating more parental support and higher expectations which influenced growth mindset.

Table 1
Significant Direct Effect Path Coefficients for Schools in all three settings

Paths	Setting	Bootstrap Path Coefficient	Bootstrap t value	Bootstrap Probability
2 Parents -> Academic Home Climate	Rural	.182 ^a	2.868 ^b	.004 ^c
Academic Home Climate-> Expectations	Suburban	.096	1.924	.052
Academic Home Climate -> Parent's Talk	Rural	.252	3.154	.002
	Suburban	.358	7.134	.000
	Urban	.190	2.316	.021
Academic Home Climate -> Support	Rural	.257	3.025	.002
	Suburban	.329	6.099	.000
	Urban	.377	4.551	.000
Academic Home Climate -> Child Initiated Talk	Suburban	.315	6.103	.000
	Urban	.369	5.524	.000
Support -> Expectations	Rural	.547	7.622	.000
	Suburban	.455	9.123	.000
Stimulation -> Support	Rural	.209	1.977	.048
Child Initiated Talk -> Support	Urban	.247	2.921	.004
Parent Initiated Talk -> Support	Suburban	.332	5.34	.000
	Urban	-.160	2.295	.022
Parent Initiated Talk -> Expectations	Suburban	.158	3.159	.002
	Urban	.382	4.946	.000
Parent's Education -> Parent's Talk	Rural	-.392	5.360	.000
	Urban	.194	2.324	.020
Parent's Education -> Child's Talk	Rural	-.223	3.456	.001
Stimulation -> Child's Talk	Rural	.191	2.378	.017
	Urban	.202	2.743	.006

Table 2 indicates that AHC, Parent's Initiated Talk, Parent's Education, Community Stimulation and 2-Parent Family had significant indirect effect on parent's expectation. Also, AHC, Parent Talk and Support had significant indirect effect on growth mindset in one or more socioeconomic settings. Thus, acting like mediator variables, all the parental involvement dimensions seem to exert their influence through expectations which has direct effects on children's growth mindsets.

Discussion and Conclusion

Unlike previous studies which mainly focused on parental involvement and youth academic performance, this study explored parental involvement factors and children's mindsets from different school settings in a developing country, Ghana. Our results indicate that in each school setting Motivation and Parental Expectations and Mother's Aspirations (in rural setting) were the most prevalent direct predictors of children's growth mindset. Thus in the three socioeconomic settings in Ghana, most adolescent children developed growth mindset when their parents demonstrated strong interest in their schoolwork and expected them to progress to a good university or beyond. This generates significant motivational processes which enable the children to acquire new skills, knowledge and value their ability to solve problems with little or no help from teachers. Highly motivated students from

homes of high interest and expectation develop growth mindset and tend to orient towards learning goals. They value their ability to solve problems, explore, initiate, and pursue tasks that promote intellectual growth with improved achievement (Hong & Ho, 2005; Dweck, 2007; Blackwell, et al, 2007; Cho & Lin, 2011).

Moreover, this research has shown that direct and indirect interactions between parental involvement dimensions ultimately influenced children's growth mindset with parent's expectations and support playing key roles. Parental support holds the involvement interactions together impacting on children's growth mindset through parents' expectations as the one significant parental involvement predictor. An academic home climate and stimulating community engendered frequent parent-child conversations about education promoting increased parental support. Thus, family members and/or adults in the community influenced children's growth mindset through encouragement, recognition of talents and emphasis on reading. Finally, while student's growth mindset was nurtured mainly through parent-child communication, family support and expectation within mostly the suburban and urban school settings, urban homes often have more reading materials and model better reading habits. This is consistent with research findings which document such multidimensional parent involvement activities as expectation, family communication, conducive home atmosphere, parental support

Table 2 Significant Indirect Effect Path Coefficients for all three settings				
Paths	Setting	Bootstrap Path Coefficient	Bootstrap t value	Bootstrap Probability
Academic Home Climate ->Growth	Suburban	.062 ^a	3.277 ^b	.001 ^c
	Urban	.042	1.988	.047
Academic Home Climate ->Expectations	Rural	.170	2.823	.005
	Suburban	.255	7.390	.000
	Urban	.146	2.859	.004
Academic Home Climate -> Support	Suburban	.093	3.096	.002
Parent Initiated Talk ->Expectations	Suburban	.332	5.34	.000
	Urban	-.160	2.295	.022
Parent Initiated Talk ->Growth	Suburban	.150	4.933	.000
Parent's education ->Expectations	Rural	-.073	1.992	.046
	Urban	.086	2.014	.044
Stimulation ->Expectations	Rural	.144	2.362	.018
2 Parents ->Expectations	Suburban	.064	2.269	.023
Support -> Growth	Suburban	.080	3.330	.001

and family structure as key predictors of academic achievement and student's mindset (Dweck, 2007; Campbell & Walberg, 2011; Jaynes, 2012; Froiland & Davidson 2014).

Thus, even though complex interactions between parental involvement dimensions manifest differently in the various socioeconomic settings, generally increased communications, home learning environment with high expectations, motivation and support significantly nurture growth mindset in children.

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Sabrina Brancaccio, Ed.D. is Executive Director of Pupil Personnel Services, Long Beach Public Schools, Long Beach New York.

Marcellus N. Gorleku, Ed.D., is Chaplain and Lecturer, Mount Mary College of Education, Somanya Ghana, West Africa.

James R. Campbell, Ph.D., is Professor Administration and Instructional Leadership, St. John's University, Jamaica New York.

The Influence of Parenting Styles on Academic Adjustment and Psychological Well-Being Among Thai University Students Mediated by Internet Addiction and Self-Regulation: A Path Model

By Dr. Parvathy Varma, Dr. Uree Cheaskul,
and Dr. Polthep Poonpol

ABSTRACT

The major purpose of this study is to investigate the direct and indirect influences of parenting styles (authoritarian, authoritative and permissive) on educational adjustment and psychological well-being mediated by self-regulation and Internet addiction among university students in Thailand. Self-Regulation Questionnaire (SRQ), the Internet Addiction Scale (IAT), the Parental Authority Questionnaire (PAQ), Educational Adjustment Scale (EAS) and the Satisfaction with Life Scale were the instruments used to collect data from 794 university students from 10 universities in Thailand.

The results indicated a direct positive relationship between authoritarian parenting style and life satisfaction and educational adjustment. Permissive parenting style also has a positive relation on educational adjustment. The result also indicates an indirect influence of authoritative parenting styles on education adjustment mediated by self-regulation and Internet addiction. The more authoritative their parents are, the better students state are their self-regulatory skills and educational adjustment. Also, the more authoritative the parents were the lower were their students' addiction to the Internet and the better were their students' educational adjustment. The general parenting style in the Thai setting tends to be authoritarian and Thai students report experiencing higher life satisfaction with this style.

INTRODUCTION

In the present digital world, the Internet has undoubtedly become a huge part of our life. There is a greater importance for the Internet in our lives both personally and professionally. It is a versatile facility that helps one to accomplish various tasks in our lives easily. Internet addiction has become a significant concern in the present digital world where a youngster engages this technology from the time one wakes up until one goes to sleep. However, the scientific research on this field started picking up a decade ago and problems associated with excessive use of the Internet were identified among the general population (Brenner, 1997; Greenfield, 1999). Crimes related to Internet use in Asia have caught the media attention widely. For example, a Chinese

gamer was sentenced to life for killing a fellow gamer, when he found out he had sold his virtual sword for 7,200 Yuan (£473) ("Chinese Gamer Sentenced to Life", 2005).

Research has been conducted on the nature and the consequences of Internet addiction in the West. However, the prevalence and antecedents of Internet addiction in Thailand or its impacts has not been scientifically documented due to the discrepancies seen in literature as to what exactly is Internet addiction and how the problem can be diagnosed. As university administrators, it is very important to address this issue and take adequate measures or create strategies to alleviate the problems. There is a dearth of systematic research on the antecedents of Internet addiction among university students in the Thai context.

Internet Addiction

The term Internet addiction was first introduced by Goldberg and defined as the excessive use of Internet that disrupts the day-to-day activities (1996). To differentiate the use of Internet and addiction, it is easier to observe the behavioral changes when the access is withdrawn. Normal users use Internet as a technology for their day-to-day needs and act normal when their access is denied (Young, 1998; Davis, 2001). On the other hand, problematic or pathological users use Internet extensively and spend excessive time that affects their normal life such as family, school, work and friends and they do not act normal when the access is denied (Lee & Shin, 2004). Kandell (1998) defined Internet addiction as "a psychological dependence on the Internet, regardless of the type of activity once logged on" (p. 12).

Based on the conceptualization of Baumrind's theory, researchers over the past two and a half decades emphasized the role of parenting on the instrumental competence of children by balancing their societal and individual needs and responsibilities. The most significant indicators that directly predict their competence are responsible independence, cooperation and maturity (Darling & Steingberg, 1993). In universities, some students face psychosocial problems due to excessive use of the Internet as reported by instructors.

These problems include being isolated from peers, lack of interest or involvement in academic activities and projects, and failure to develop meaningful peer relationships resulting in lowered educational adjustment and well-being. There is a lack of empirical support if excessive Internet use by university students predicts poor adjustment in their educational settings. More in-depth research into the antecedents and impacts of excessive Internet use on academic adjustment and student well-being seems warranted at this time.

LITERATURE REVIEW

Impulse control disorder model

The Impulse Control Disorder model was developed by Young (1998) when he was trying to relate the symptoms of individuals who were problematic Internet users to the symptoms of pathological gamblers and alcohol or drug dependents. He identified that the symptoms were more or less similar. Since pathological gambling is classified as one of the impulse control disorders in the DSM-IV, Young was able to conceptualize Internet addiction as a type of impulse-control disorder and developed a measure, based on the criteria of pathological gambling in the DSM-IV, and used it as a diagnostic measure to identify Internet addiction.

Researchers who support this impulse control disorder model often employ the term 'pathological Internet use' to indicate that, to some extent, their perspective on problematic Internet use is based on the same criteria used to define pathological gambling. Many researchers tried to relate the problematic Internet use with obsessive-compulsive disorder and they believed that this is a pathological repetitive behavior. They explained problematic Internet use as an inability to control time-consuming behaviors that result in social, occupational and financial difficulties (Shapira, Goldsmith, Keck, Khosla, & McElroy, 2000). Young (1998) concluded that problematic Internet use could best be characterized as an unspecified impulse control disorder rather than as an obsessive-compulsive disorder. Baumrind and Thompson (2002) emphasize the role of parents on children's growth and development and one can posit the question of a relationship among parenting styles and Internet addiction.

Parenting Styles

Parenting styles can be explained as the set of behaviors and attitudes of the parents expressed to their children, which would influence their development differently. Each style explains the degree to which parents respond to the demands and needs of the children and the way they monitor, mold and control their behavior (Darling, 1999; Darling & Steinberg, 1993).

Baumrind (1967) has described three different styles of parenting and those are authoritative, permissive, and authoritarian. Authoritative parenting is considered to be an ideal one which involves good nurturance of children and

is characterized by a lot of involvement, sensitivity, good reasoning, and some autonomy for the child. Conversely, if a parent lets a child make one's own decisions and does not interfere at all with any behavior nor offers punishment for misbehavior or clear directives, such a parent can be referred to as a permissive parent. Parents who have authoritarian parenting styles are very strict and have high restrictions and high exertion of power on their children.

Darling and Steinberg (1993) stated that Baumrind's parenting style model has a positive remarkable influence on the socialization of the children in the United States. Parental involvement influences children's academic activities and their performance. Other research indicated that parents who actively engage themselves in the school activities and homework of the children have students with better performance in school (Hoover-Dempsey, Battiato, Walker, Reed, DeJong, & Jones, 2001; Epstein, 1987; Spera, 2005).

Educational Adjustment

Earlier researchers mainly emphasized academic ability as a significant predictor of student retention, but later a broader concept of academic adjustment was explored and many factors like scholarly potential, motivation to learn, and general satisfaction with the learning environment were considered as significant predictors of academic adjustment (Gerdes & Mallinckrodt, 1994).

Self-regulation

Self-regulation is the efforts one puts in to regulate or guide one's actions. Regulation is not limited to guiding one's behavior by one's personal goals. Self-regulation is also associated with changing one's dispositions or behavior to be in line with social and cultural norms (Baumeister & Alquist, 2009). Self-regulation could be explained as one's beliefs or motives, and not a specific trait or ability of a person (Zimmerman, 2000). In Bandura's view, self-regulation was explained in terms of the relationship between an individual, his behavior and the environment (Bandura, 1991). Cohen (2012) states the importance of self-regulation as its impact on interpersonal success, academic achievement and emotional adjustment.

Parenting Styles, Self-regulation and Academic Adjustment

One of the most important outcomes of positive parenting has been better family and academic adjustment of children. Self-regulation also plays a significant role in academic adjustment. Parental control has an influence on their children's self-regulation (Grolnick & Ryan, 1989). Grolnick & Ryan (1989) stated that parental autonomy positively influences self-regulation of the children and in turn leads to better academic performance and adjustment. Parents, by fostering autonomy in their parenting styles, prepare their children for better adjustment in an educational environment.

Turner et al. (2009) stated that authoritative parenting influences academic performance, but self-efficacy and student motivation also have a significant role in their success. The self-determination theory explains that intrinsic and extrinsic goal pursuits can have a significant impact on one's psychological well-being. Each parenting style creates a different family environment which influences a child's sense of self-efficacy. Self-efficacy plays a significant role in the success of people in areas like work life and academics, overcoming hardships and difficulties, and academic success and adjustment (Bandura, 1986; Chemers, HU, & Garcia, 2001; Turner et al., 2009).

Research done in eastern culture by Vansteenkiste, Lens, and Deci (2006) stated that autonomy is not valued in the eastern culture and they argued that the experience of autonomy does not correspond well with the collectivistic values of the eastern culture. The eastern culture does not actually promote autonomy, personal freedom or self-direction (Olsen, Yang, Hart, Robinson, Wu, Nelson, & Wo, 2002; Markus & Kitayama, 2003; Iyengar & DeVoe, 2003).

Parenting Styles, Internet Addiction and Academic Adjustment

There is a plethora of research that indicates parental warmth, parental control and the style of parenting have an influence on the Internet addiction of children (Chou & Peng, 2007; Heim et al., 2007; Kalaitzaki & Birtchnell, 2014; Yao et al., 2013). If parental bonding does not happen positively during the early life of a child, there is a tendency to predispose one for 'negative relating to others' in a later life. When the negative relating to others develops in young adults, they are more likely to experience loneliness and withdraw from social interaction. The use of Internet can help young adults to widen and strengthen their network and gain plea-

sure and entertainment by spending time on interactive games, and social networking. Once they taste the fun, they have higher chances of getting into Internet addiction, which leads to significant distress and impairments in their life. Their priority becomes to be online and they neglect other day-to-day activities, like their classes, assignments, and studying for an exam. Thus, they lag in their academic activities and educational adjustment becomes difficult (Smahel et al., 2012; Kalaitzaki & Birtchnell, 2014).

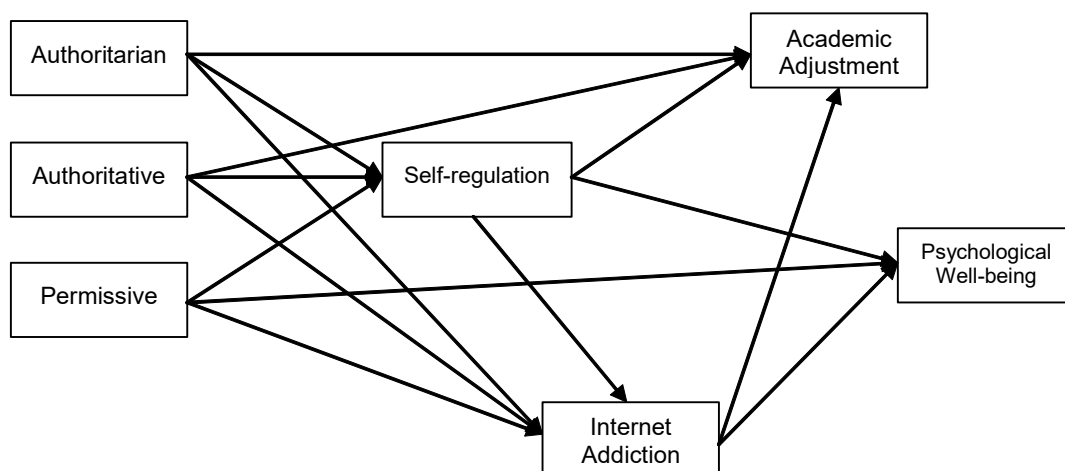
Parenting Styles, Self-regulation and Psychological Well-being

Self-regulation can be influenced by parental warmth and control. Parents play a significant role instilling autonomy to make decisions in their children. A self-regulated person is able to set targets or attainable goals and take appropriate actions to achieve the targets. A self-regulated individual will be aware of his own limitations (Abar et al., 2009).

Two domains that the self-regulation theory examined are academic achievement and risk behavior. Individuals with self-regulatory skills in the academic settings activate and sustain their thoughts, emotions and actions in a systematic way to achieve their targets or goals. When faced with stress and challenges, if their self-regulatory skills are better, they tend to know what strategies they should rely on to enhance their persistence and performance that leads to their set goal.

Research on socialization of parent child found that authoritative parenting builds clear boundaries for their children's behavior with reasonable and rational negotiation. Authoritative parents are strict with the children when required and they show responsiveness and warmth and

Figure 1. Path model showing the relationship of authoritarian, authoritative and permissive parenting on academic adjustment and psychological well-being mediated by self-regulation and Internet addiction



foster autonomy and independence in children. These parental behaviors and dispositions enhance their children's self-regulatory skills and help them adapt well in the university environment with its many challenges (Maccoby & Martin, 1983; Abar et al., 2009).

Overall, the results provided by a multitude of research clearly support that parenting styles influence the educational adjustment and well-being of students. The present research explores not only direct influences, but also the indirect influences that parenting styles have on the educational adjustment and well-being of university students mediated by self-regulation and Internet addiction as given in the conceptual model in **Figure 1**.

Research Hypotheses

Hypothesis 1: Parenting styles (authoritarian, authoritative and permissive) have a direct influence on educational adjustment and psychological well-being of University students in Thailand, such that the more authoritative the parents are, the higher will be their students' educational adjustment and psychological well-being. Similarly the more permissive and authoritarian styles the parents employ, the lower will be the students' educational adjustment and psychological well-being.

Hypothesis 2: Parenting styles (authoritarian, authoritative and permissive) have an indirect influence on educational adjustment and psychological well-being of University students in Thailand mediated by Internet addiction and self-regulation, such that the more positive their parenting styles (more authoritative) are, the higher their self regulation will be, the lower their Internet addiction will be, and the higher their educational adjustment and psychological well-being will be. Similarly, the more negative their parenting styles (authoritarian and permissive) are, the lower their self-regulation will be, the higher their internet addiction will be, and the lower their educational adjustment and psychological well-being will be.

METHOD

Research design

This study utilized a correlation research design in which the relationship between the key variables of parenting styles, educational adjustment, well-being, self-regulation and Internet addiction of university students in Thailand were determined using a path model.

Participants

The participants were comprised of 794 university students doing their undergraduate courses in 6 private and 6 public universities in Thailand. The sampling criterion employed is convenient sampling. The proposed path model was tested using SEM; a large sample size is required (Hair, Anderson, Tatham, & Black, 1997).

Research Instrumentation

Part I - comprised of Parent Authority Questionnaire constructed by Buri (1991) based on Baumrind's (1971) typology of parenting styles, which are authoritarian, authoritative and permissive. The PAQ is appropriate for young adults. The scale consists of 30 items asking the respondents to rate parenting behavior of their parents on a scale of one (strongly disagree) to five (strongly agree), with ten items for each parenting type subscale. The PAQ consists of three subscales, which are permissive (1, 6, 10, 13, 14, 17, 19, 21, 24 and 28), authoritarian (2, 3, 7, 9, 12, 16, 18, 25, 26 and 29) and authoritative (4, 5, 8, 11, 15, 20, 22, 23, 27, and 30). Reliability of the question items was tested. Internal consistency alpha coefficients were 0.70, 0.86 and 0.721 respectively based on the six scales.

Part II - comprised of Self-Regulation Questionnaire (SRQ), developed by Brown, Miller, & Lawendowski (1999). The Self-regulation Questionnaire (SRQ) was developed as a self-report measure to assess the self-regulatory processes (Brown et al., 1999). The SRQ scale consists of 63 items and each of the items is scored on a 5-point Likert scale with high scores indicating high (intact) self-regulation capacity and low scores indicating low (impaired) self-regulation capacity. The items that are reversed scored are 2, 3, 4, 5, 6, 8, 10, 12, 13, 15, 19, 20, 21, 24, 26, 29, 31, 33, 37, 40, 43, 45, 50, 55, 62 and 63. The reliability of the SRQ is excellent, according to a study by Aubrey, Brown, and Miller (1994) reported as high ($r = .94$, $p < .0001$). Furthermore, the internal consistency of the scale was also quite high ($\alpha = .91$). The validity of SRQ is also strong with concomitant measures.

Part III - is an Internet Addiction Scale developed by Young in 1999: Young (1998) developed the Diagnostic Questionnaire (YDQ) based on the eight DSM criteria for pathological gambling. Young (1999) revised the YDQ and constructed a Likert scale-based assessment tool called the Internet Addiction Test (IAT). The IAT scale consists of 20 items, which intend to assess the severity of the negative consequences due to excessive use of Internet. These items cover an individual's Internet use habits, his/her thoughts about the Internet, as well as problems related to excessive Internet use.

Part IV - Educational Adjustment Scale: The Educational adjustment scale, which is the adapted form of the First Year Experience Questionnaire (FYEQ), is used in this research and it measures the educational adjustment of the participants (McInnis et al., 1995). FYEQ has good internal consistency ranging from 0.50 to 0.88, while Dalziel & Peat (1998) reported that the reliability of FYEQ ranged from 0.40 to 0.89. In the current research, the following items (item numbers 6, 8, 28, 29, 30, 31, 32, 33, and 34) were reverse-scored so that a high score on the EAS (an adaptation of the FYEQ) indicated greater educational adjustment. Reliability of the question items was tested. Internal consistency alpha coefficients was 0.77 based on the five scales.

Part V - comprised of a 5 item *Satisfaction with Life Scale* developed by Diener, Emmons, Larsen & Griffin (1985) that measures the cognitive-judgmental aspects of their well-being. The authors of the SWLS stated that the scale was basically developed to examine overall aspect of respondents' life and to assess their general well-being. This is a 7- point Likert scale with a higher score indicating higher life satisfaction. The scale has reported an internal consistency coefficient (cronbach's alpha) of .87 and test-retest reliability correlation of 0.82 for a two month period (Fischer & Corcoran, 2007). For this study, reliability of the question items was tested. Internal consistency alpha coefficients was 0.83 based on the seven scales

Part VI - constructed by the researcher, comprises personal information, which taps to into participants, age, gender, year of study, faculty of study, and economic status of the family.

Procedure

The researcher selected 6 private and 6 public universities. The original English questionnaire was translated to Thai and then translated back to English by different bilingual experts to maintain the consistency in translation and to reduce bias.

Data Analysis

Path Analysis via Structural Equation Modeling was employed to test the hypothesized direct and indirect influences of parenting styles on educational adjustment, being mediated by Internet addiction and Self-regulation.

RESULT

The reliability coefficients for the five scales ranged from 0.79-0.91. The sample was comprised of 794 university

students from 12 universities in Thailand. There were 315 males (39.7%) and 479 females (60.3%). The sample was drawn from 6 private universities and 6 public universities.

Table 1 presents the means and standard deviations for these 7 computed variables. From **Table 1** it can be inferred (1) that the respondents have a high level of self-regulation (mean scores are above the scale's mid-point), (2) reported lower level of internet addiction (mean scores are below the scale's mid-point), (3) reported high educational adjustment (mean scores are above the scale's mid-point), (4) reported high levels of authoritative and permissive parenting styles and lower levels of authoritarian style (mean scores are below the scale's mid-point for authoritarian), and (5) reported that they had good life satisfaction (mean scores are above the scales' mid-point).

Path Analysis to Test the Hypothesized Path Model

Current study hypothesized that parenting styles (authoritarian, authoritative and permissive) have a direct influence on the educational adjustment and psychological well being among university students in Thailand. The study also hypothesized that parenting styles (authoritarian, authoritative and permissive) have an indirect influence on educational adjustment and psychological well-being of University students mediated by self-regulation and Internet addiction (See Figure 2).

The chi-square goodness-of-fit value for the path model is statistically significant, χ^2 (df = 528) = 1344.74, $p < .001$, suggesting that the co-variance matrix for this posited model does not fit the sample co-variance matrix very well (**Table 2**). The incremental fit indices (Normed Fit Index - NFI, Incremental Fit Index - IFI, Tucker-Lewis Index - TLI, Comparative Fit Index - CFI) are all in the range of 0.853-0.896 though not above 0.9. However, the RMSEA value of 0.05 which is lower than 0.08 indicates a good fit of the model

Table 1. Means and Standard Deviations for the five Computed Variables

	Mean	SD	Midpoint
Self Regulation	3.54	.44	3
Educational adjustment	3.66	.46	3
Internet Addiction	2.56	.80	3
Life Satisfaction	4.45	1.05	4
Authoritarian style	2.95	0.79	3
Authoritative style	3.55	0.58	3
Permissive style	3.56	0.60	3

Table 2. χ^2 Goodness-of-Fit Value, Normed Fit Index (NFI), Incremental Fit Index (IFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA)

Model	χ^2 (N=528)	df	p	NFI	IFI	TLI	CFI	RMSEA
Null Model	9137.015	446	< .0010	.000	.000	.000	.000	.148
7-Factor Model	1344.738	445	< .001	0.853	0.896	0.884	0.896	0.050

PES – permissive
ANS – authoritarian
AES – authoritative

SR – self-regulation
IAT – Internet addiction

LS – life satisfaction
EAS – educational adjustment

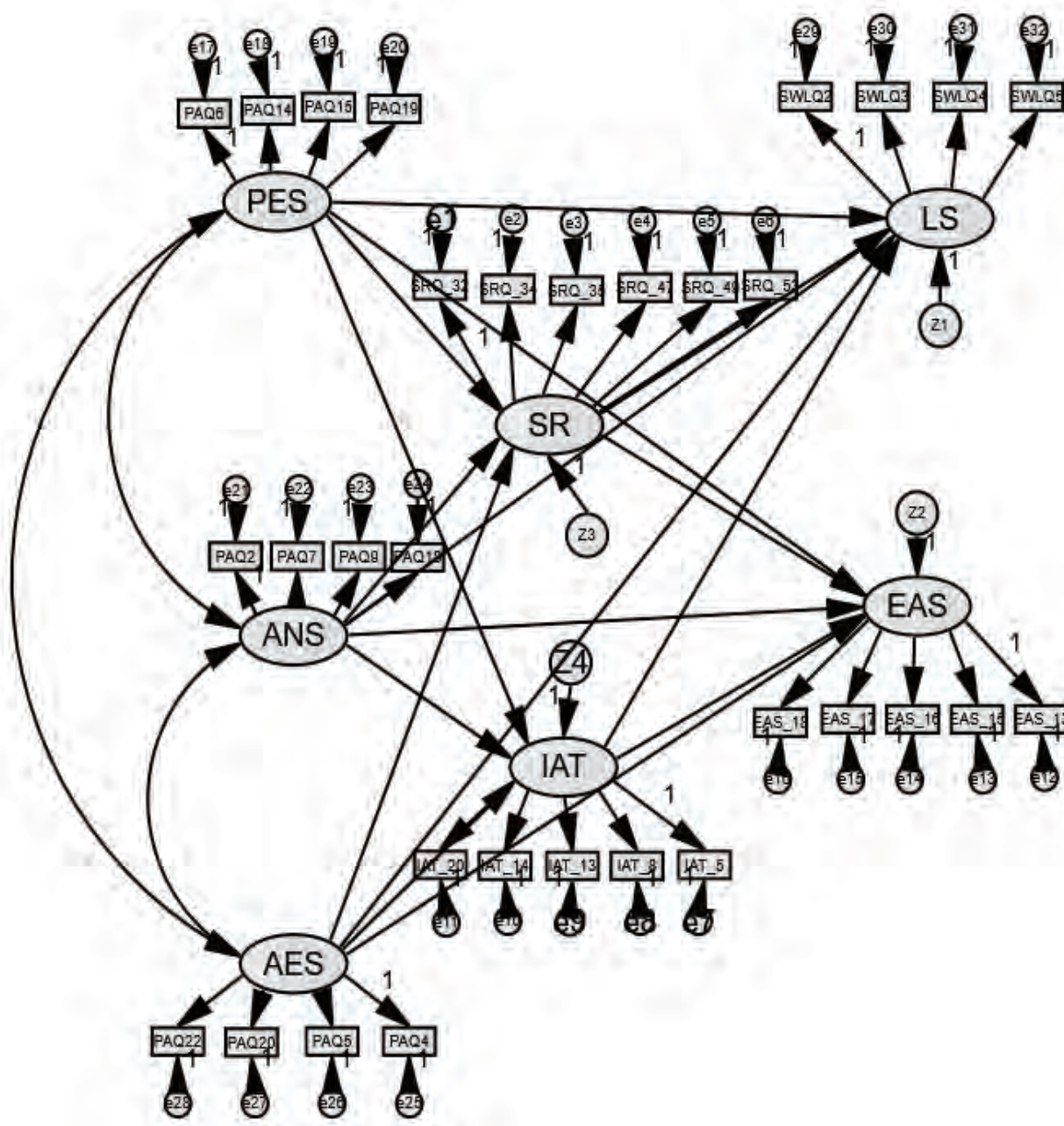


Table 3. Standardized regression weights of the relationship of the variables in the model

Relationship	β	Critical Ratio (C.R.)	P-Value	Result
PES→SR	-.808	-2.191	.028	Significant
ANS→SR	-.493	-5.005	***	Significant
AES→SR	1.120	3.002	.003	Significant
ANS→IAT	.833	8.647	***	Significant
PES→IAT	.871	2.694	.007	Significant
AES→IAT	-.768	-2.423	.015	Significant
PES→LS	1.016	2.726	.006	Significant
ANS→LS	.328	2.311	.021	Significant
AES→LS	-.672	-1.798	.072	Not significant
SR→LS	.135	1.943	.052	Not significant
IAT→LS	-.078	-.914	.361	Not significant
PES→EAS	1.366	2.593	.010	Significant
SR→EAS	.498	5.408	***	Significant
ANS→EAS	.558	2.928	.003	Significant
AES→EAS	-1.070	-2.023	.043	Significant
IAT→EAS	-.261	-2.541	.011	Significant

(Browne & Cudeck, 1993). These fit indices indicate that the path model provided a fit relative to its null or independence model, and support the hypothesized structure of the path model, which is supportive for further analysis. **Table 3** gives the standardized regression weights of the relationship of the variables in the model.

The results revealed that permissive parenting styles influenced the life satisfaction and educational adjustment positively, indicating that the more permissive the parents were, the higher their children's educational adjustment ($\beta = 1.356$) and life satisfaction ($\beta = 1.01$) were. Authoritarian parenting style has a direct positive influence on educational adjustment ($\beta = .498$) and psychological well-being ($\beta = .0328$). Authoritative parenting has a significant negative influence on educational adjustment ($\beta = -1.07$). Authoritative parenting style has no significant influence on psychological well-being.

Permissive parenting style has an indirect influence on educational adjustment mediated by Internet addiction ($\beta = 0.871$; $\beta = -0.261$). The more permissive style the parents adopt, the higher were their children's Internet addiction. The higher the Internet addiction, the lower were their educational adjustment. Permissive parenting has an indirect influence on educational adjustment mediated by self-regulation ($\beta = -0.80$; $\beta = 0.498$). The more permissive styles the parents adopt, the lower were their students' self-regulation, and the lower their self-regulation, the lower their educational adjustment.

Authoritarian parenting style has an indirect influence on educational adjustment mediated by Internet addiction ($\beta = 0.83$; $\beta = -0.261$). The more authoritarian style the parents adopt, the higher were their students' Internet addiction. The higher the Internet addiction, the lower were

their educational adjustment. Authoritarian parenting style has an indirect influence on educational adjustment mediated by self-regulation ($\beta = -0.49$; $\beta = 0.498$). The more authoritarian style that the parents adopt, the lower were their students' self-regulation, and lower their self-regulation; the higher were their educational adjustment.

Authoritative parenting style has an indirect influence on educational adjustment mediated by Internet addiction ($\beta = -0.768$; $\beta = -0.261$). The more authoritative the parents were, the lower was their students' Internet addiction. The lower the Internet addiction, the higher students' scores were for their educational adjustment. Authoritative parenting styles have an indirect influence on educational adjustment mediated by self-regulation ($\beta = 1.12$; $\beta = 0.498$). The more authoritative style parents adopt, the higher were their students' self-regulation, and the higher the students' self-regulation scores, the higher were the students' educational adjustment. From the analysis, it was shown that the incorporated variables could explain up to 29.1% (residual was 70.9%) of the educational adjustment and 18.7% (residual was 70.9%) of life-satisfaction. After the path analysis was completed, modification fit indices were considered for improvement. It was found that educational adjustment (EAS) had positive influence over life-satisfaction (LS) such that the percentage of life-satisfaction explained was improved from 18.7 to 19.9.

DISCUSSION

Hypothesis 1: Parenting styles (authoritarian, authoritative and permissive) have a direct influence on educational adjustment and psychological well-being of University students in Thailand, such that the more authoritarian the parents are, the higher their students' educational adjustment and psychological well-being will be. Similarly, the more permissive and authoritative parenting styles the

parents employ, the lower will be the students' educational adjustment and psychological well-being.

The results did not come as proposed and are not in line with the results in the Western culture of the United States. The design and conduct of the present study was based on Diana Baumrind's theory of parenting styles, that was developed within the Western culture and conclusions were derived based on the western sample. Several values overlap between cultures and there is still a distinction between the primary belief system utilized by Eastern and Western cultures. The findings that are deemed relevant within the western culture may not be applied to the Asian context.

The present study indicated that permissive and authoritarian parenting styles have a positive influence on the educational adjustment of the students and permissive style also influenced psychological well-being positively. Contrary to the proposition, authoritative parenting has a significant negative influence on educational adjustment and no influence on psychological wellbeing unless the relationship to intermediate variables of self-regulation and Internet Addiction are included in the path analysis. This is contradictory to the findings of Dornbusch et al. (1987) that indicated that lower grades were associated with more authoritarian, more permissive, and less authoritative parenting.

According to Baumrind (1967, 1971) children of authoritative parents were found to be more self-reliant and independent whereas those of authoritarian parents were more withdrawn and discontented. The western theory might not work in Asian settings. There are similarities and differences in culture, values, and norms across different societies. These are often manifested in the parenting styles that are employed quite differently. More often than not, another may not appreciate some parenting practices that are considered acceptable by a particular culture. For example, when compared to Western practices, traditional Asian families typically appear to show less warmth to their children (Smith, 2009). The parenting style is typically more authoritarian and appears to be driven by the axiom that "to govern is to love". These parents are very strict and usually do not show outward support for their children. They believe that controlling children is a parent's role and exhibit highly controlling behavior as a way to protect their children from developing behaviors that are considered anathema to the family and to their society.

Thai parents, regardless of their styles tend to impose control on their children's activities, establish rules and guidelines that their children are expected to follow, in the hope that such guidelines will foster the discipline and personal focus necessary for their children to achieve their academic pursuits and, eventually, to succeed in their future life. That could be the reason why authoritarian style parenting fosters better educational adjustment among the respondents in this study of Thai university students. Randolph (1995) stated that authoritarian child-rearing practices can be valued high as parents would think obedience as positive and

they would feel it is necessary for their child to go on with their life without difficulties and achieve success in school.

The authoritative parents communicate with their children and explain the reasoning behind their policy and allow their children the freedom to express their opinion. Perhaps in the Thai culture, that kind of autonomy might be quite new and taking responsibility is difficult for them, which could be the reason why it negatively affected the educational adjustment. Recent research reported that higher-income parents tend to use either authoritative or permissive style and they also reported that children under permissive style parenting had higher delinquent behavior. They also reported that parents in Thailand generally use authoritarian style (Rhucharoenpornpanich, Chamrathirong, Fongkaew, Rosati, Miller, & Cupp, 2010).

In Thai cultural settings, even adolescents probably consider parental control as a support in achieving in academics and those with higher control adapted well academically. But those who were given the freedom to make their decisions were unable to make the educational adjustment efficiently. In the case of permissive styles, however, they were used to being on their own with plenty of freedom and they were able to adapt well academically and had better satisfaction with life.

Asian Americans generally succumb to authoritarian style of parenting (Dornbusch et al., 1987), are more controlling (Chao, 1994), and have higher tendency to value those characteristics that represent the collectivistic orientations (Julian, McKenry, & McKelvey, 1994). Vansteenkiste et al. (2006) also stated that autonomy is not valued in the eastern culture and the experience of autonomy does not correspond well with the collectivistic values of the eastern culture. Based on research with 153 Chinese students, they found that there was no relation between student autonomy and student scores on the ability to focus, time management, positive outlook, and exam anxiety.

The eastern cultures do not actually promote autonomy, personal freedom or self-direction (Olsen et al., 2002, Markus & Kitayama, 2003, Iyengar & DeVoe, 2003). The research was not able to identify a positive relation between autonomy and these variables. Despite the highlight of the negative impacts of authoritarian and permissive styles, there is some research that indicates that despite being exposed to control parenting, Asian American adolescents excel well in their academics (Chao, 1994; Steinberg et al., 1992).

Hypothesis 2: Parenting styles (authoritarian, authoritative and permissive) have an indirect influence on educational adjustment and psychological well being of University students in Thailand mediated by Internet addiction and self-regulation, such that the more positive parenting styles the parents use (more authoritative), the higher will be their children's self-regulation and the lower their Internet addiction and consequently, higher will be their educational adjustment and psychological wellbeing.

Similarly, the more negative their parenting styles (authoritarian and permissive) are, lower will be their self-regulation and higher will be their internet addiction and consequently, lower will be their educational adjustment and psychological well-being.

The indirect relationship was more or less similar as per the previous research. The authoritarian parenting style had an indirect influence on educational adjustment mediated by self-regulation, but there is no indirect influence of psychological well-being mediated by self-regulation. When the parents were more authoritarian, the children had lower self-regulation and the lower their self-regulation, the lower were their educational adjustment. This is in line with the previous researches. Cohen (2012) stated that higher self-regulation contributes to better interpersonal success and academic achievement.

The results of the present study indicate when the parents employ less control over their kids and they have a tendency to develop higher self-regulatory skills, which in turn enhances their academic adjustment. Authoritarian parents make an attempt to control and shape their children using very strict standards, punitive measures and fixed rules and regulations (Gronlick & Ryan, 1989). The motivation the students have with authoritarian parents might be extrinsic. Their adaptation to the environment will also be restricted. When faced with challenges in the academic settings, the role of self-regulation is important. When they have low self-regulation, adjusting to the new environments becomes difficult.

Authoritarian parenting styles have an indirect influence on academic adjustment mediated by Internet addiction. In a research that was reported earlier by Yao et al. (2013) on college students in China, they indicated that parental behaviors were positively related to Internet addiction. The results indicated that the father's rejection and over-protection would increase the risk for young adults developing addiction towards the Internet. When parents have very strict control over the children, they tend to be over-protective and interfere with their lives all the time and try and control their lives. This can actually create a tendency among the young adults to spend more time on the Internet and where they seek to experience the freedom and entertainment online. The more time they spend online either browsing or playing games, may reduce their commitments at university to home-work and deadlines for assignments, classes and quizzes. The greater the backlogs of work and assignments students have, the more stressed out they tend to be, and the less they are able to cope well with their academics.

Authoritative parenting style has an indirect influence on educational adjustment mediated by self-regulation. The more authoritative style of parenting they employed, higher were their children's self-regulatory skills, and higher were their educational adjustment. Authoritative parenting style fosters behavior that shows reason-

able and rational justification among the children. Authoritative parenting styles can foster higher self-regulation among the youth. (Abar et al., 2009). Tangney, Baumeister, & Boone (2004) explained the benefits of self-control in their research emphasizing on the benefits of self-control. Self-control, which is an important element of regulation, significantly predicted many outcomes such as interpersonal success, school achievement, and adjustment.

The more authoritative the parents are, the lower is their students' addiction to the Internet and the lower their addiction to Internet, the higher will be their educational adjustment. Simons et al. (2008) reported that children with higher parental care and less overprotection scored lower on Internet addiction. Authoritative parenting reflects very encouraging and positive style of parenting. Parents who employ this parenting style provide clear standards for their children's behavior and use consistent supportive discipline (Baumrind, 1991).

According to Buri (1991), authoritative parents provide "clear and firm directions for their children, but this disciplinary clarity is moderated by warmth, reason, flexibility, and verbal give-and-take" (p. 111). Rosen, Lafontaine, and Hendrickson (2011) investigated the association amongst parenting styles, limits that were set, and adolescent use of social networking sites. They found that authoritative parenting style is related to teenagers engaging in fewer high-risk behaviors such as disclosing any kind of personal information and low likelihood of meeting online friends in person. These findings corroborate those obtained by Eastin et al. (2006) that showed that authoritative parents are more likely to intervene when it comes to their teenager's use of various media.

The more clarity and directions given to their children by their parents, the lesser the chances are of being addicted to the Internet. When the university students have lower addiction to Internet, they spend their time on academic activities and will be better adjusted in academic settings.

Permissive parenting has an indirect influence on educational adjustment mediated by Internet addiction. Lenhart, Raine, and Lewis (2001) stated the students would use Internet for their academic purposes and parents may not restrict the use thinking they are working or networking with their friends for academic reason; however this might lead to overuse or Internet addiction with negative impacts. Furthermore, Lenhart et al. (2001) reported that the majority of students prefer to go online for entertainment purposes (e.g., social networking, playing online games, shopping, making friends, etc.). Combining all these, educational and non-educational uses of the Internet may lead to unreasonable dependency. This unreasonable dependency can distract them from doing their day-to-day work at school and they might become stressed and have difficulty in catching up with the lessons and homework, that would in turn make their academic adjustment difficult.

Permissive parenting style has an indirect influence on educational adjustment mediated by self-regulation. Permissive parents tend to use inconsistent discipline, do not emphasize mature behavior, and let their children self-regulate (Baumrind, 1991). Permissive parents do not demand that their children follow strict orders nor punish them for mistakes. Permissive parents have less restrictions and boundaries for the children and as a result, their students' tend to have difficulty with their self-control (Steinberg, 2001). There is little monitoring of children's activities and the children are not able to control their timing on their activities, they have a tendency to miss their day-to-day chores at school and then the academic adjustment becomes more difficult.

LIMITATIONS

The findings obtained and conclusions drawn should be treated with caution. The research design employed is cross-sectional and descriptive and no definitive conclusions can be derived from the causal sequential effects (both direct and indirect). The observed path coefficients represent only relationship but not causality. Another limitation is the self-report measure of parenting style, which the university students answered from the memory of their parenting styles and their psychological well-being and educational adjustment. Reliance on the memory per se is clearly subjected to memory lapse/errors which can adversely affect the accuracy of the participants' true feelings/ responses.

The data collected were from a few universities in Bangkok. Although diversity was considered in the selection (private and public universities), the external validity of the findings can still be questionable. The most important limitation is that the related literature and theoretical perspectives used for the research is more from the western perspective as there is a lack of Thai literature in the field.

IMPLICATIONS

Keeping the limitations mentioned above in our mind, there are many implications for this research. Parenting styles in the Thai setting is different than Western cultural settings and parenting styles relationship to academic adjustment and life satisfaction also is different in the Thai setting. This information is useful for the educators and counselors to note in Thai settings. There is lack of literature in the Thai setting that explores the mediating effect of self-regulation and Internet addiction. The Thai translated questionnaires can be used for future researchers in Thai settings as the psychometric properties are established. The theory based path model employed in the current study can be a knowledge resource for mental health practitioners, university administrators and educators. The Universities can use the information for developing some seminars or workshops for parents emphasizing positive parenting.

CONCLUSION

The results of the study indicated a direct positive relationship between authoritarian parenting style and life satisfaction and educational adjustment. Permissive parenting style also has a positive relation on educational adjustment. These results are different from the western context. The results also indicate an indirect relationship between authoritative parenting styles and education adjustment mediated by self-regulation and Internet addiction. The more positive parenting the students experience, that is, the more authoritative their parents are, the better are their self-regulatory skills and the better are their educational adjustment. Similarly, the more authoritative the parents are, the lower are their Students' addiction to Internet and the better are their educational adjustment. The general parenting styles used are more moderate authoritarian in Thai settings and students were experiencing higher life satisfaction and educational adjustment with this style.

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Dr. Parvathy Varma is Program Director of Doctor of Philosophy in Counseling Psychology, and Master of Science in Counseling Psychology, Graduate School of Human Sciences, Assumption University of Thailand.

Dr. Uree Cheaskul is Dean, Martin de Tour School of Management and Economics, Assumption University, Thailand.

Dr. Polthep Poonpol is an Assistant Professor at Behavioral Science Research Institute, Srinakharinwirot University, Thailand.

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From the Field: Practical Applications of Research

The Practical Use of Qualitative Research Software in the Analysis of Teacher Observation Documents in the School Improvement Process

- by Rory J. Manning, Ed.D.

Background Information

It is well documented that classroom observation reports are used by school leaders as just one piece of the clinical supervision process of teachers (Cohen and Goldhaber, 2016). While the frequency of classroom observations might vary between school districts, recent regulations on Annual Professional Performance Review (APPR) have added more consistency to this process in New York State (USDOE, 2014). The challenge for school leaders has been to gain actionable data from observation reports in the school improvement process. Until recently, observation documents were filed as they occurred providing difficulty for school leaders to make connections between observations of individual teachers. Likewise, school district leaders were unable to elicit trends across classrooms without intentional, time consuming review of observation documents. The increasingly ubiquitous use of computer based software in the classroom observation process presents an opportunity for this analysis (Goldring et al., 2015). While most programs allow for quantitative analysis of observation scores and individual component ratings, none provide for the qualitative analysis of evidence collected by school administrators in the observation process. This paper attempts to initiate a process by which data from classroom observation reports can be systematically and efficiently analyzed through the use of available qualitative research software.

QSR International's NVivo® (NVivo) software program is a well-recognized tool that is widely used by qualitative researchers around the globe (QSR International, 2018). Unstructured qualitative data inputs are systematically organized by the researcher within the software to provide opportunities for analysis and to develop connections between data that provide deep insights only possible through qualitative methods. This paper will explore the use of NVivo in the qualitative analysis of evidence collected by school administrators in the classroom observation process and the practical applications of such data analysis in the school improvement process.

Recent Evolution of Teacher Evaluation

The implications of APPR legislation of 2010 were felt across the State. For the first time, the performance of students was to have a direct impact on evaluation ratings of classroom teachers and principals. A lesser publicized aspect of the legislation was the standardization of the classroom observation process across NY State public schools. School districts had to develop and submit their APPR plans which included a minimum number of classroom observations per teacher and a rubric chosen from a very small list of approved rubrics to use in the teacher evaluation process. Each rubric consisted of components of effective teaching that were to be measured in the classroom observation process. Training for school districts on the use of the approved rubrics was provided by the state and local BOCES and was very prescriptive. As is standard practice in the use of rubrics, evidence was to be collected during the classroom visitation that was to be subsequently aligned with one or more components of the rubric. The administrator would then rate the evidence for each component on a HEDI scale (Highly Effective, Effective, Developing, Ineffective). The ratings for each component would be calculated to obtain an overall rating for that observation report. This score would serve as one part of the overall annual evaluation rating for the teacher. An additional component of the legislation required districts to provide annual training for their lead evaluators to ensure inter-rater reliability. This training would promote consistency across observers within buildings, districts, and, theoretically, across the state.

Data, Data, Everywhere, All Filed in a Drawer

While the APPR process became more standardized across districts as a result of the new legislation, it also resulted in an increase in the number of classroom observations for some districts. This created both a burden and an opportunity. The burden of completing multiple observations on all teachers in districts with limited personnel resources created a focus on compliance with the largely unfunded mandate (LHCSS, 2013). At the same time, an opportunity formed in that there was now more

data available to use in the school improvement process. As stated previously, evidence being collected and sorted within components of a standardized rubric presents a rich collection of data that could provide powerful insights into instructional practices by classroom, building, department, and across the school district.

In order to more efficiently complete the numerous classroom observations, many school districts turned to computer based solutions (Goldring et al., 2015). These platforms allow school administrators to efficiently collect evidence during a classroom visit and then align the evidence into the components of the rubric. After the observation process is reviewed and finalized, a score is generated and the report is filed. This report and the valuable data it holds may never be seen again. Thus, the question of this research comes to light. How can computer software be used in the qualitative study and analysis of available evidence of classroom instruction in the school improvement process? Essentially, how do we get the information out of the drawer and transform it into actionable data points for use in the change process?

Setting

The data presented here are from a low-need school district (District) located within a suburban setting of New York State from the months of September through February of the 2017-2018 school year. The District is comprised of approximately 3,100 students and 183 teaching faculty in four buildings; a primary school, elementary school, middle school, and high school. During that time there were 332 classroom observations conducted by 15 lead evaluators. The District employs the use of the Danielson Framework for Teaching in the classroom observation and teacher evaluation process. The components of the Danielson Framework for Domains 2 and 3 used in this study are provided in **Figure 1**.

Methodology

For this paper, a content analysis will be discussed as a means of demonstrating the application of NVivo qualitative research software in the analysis of classroom observation data. Various qualitative methodologies could be employed depending on the infinite possibilities of desired outcomes and organizational needs. Here, we will explore an issue most widely known to school districts in annual training for inter-rater reliability. One critical aspect of inter-rater reliability that is not studied is the proper alignment of the evidence within the rubric. This requires qualitative analysis of both the Danielson Framework and the text evidence. In the analysis of the Danielson Framework, the researcher developed a list of key terms from each component of Do-

Figure 1. Domains 2 and 3 of the Danielson Framework for Teaching

Domain 2: Classroom Environment

Component 2a:	Creating an Environment of Respect and Rapport
Component 2b:	Establishing a Culture for Learning
Component 2c:	Managing Classroom Procedures
Component 2d:	Managing Student Behavior
Component 2e:	Organizing Physical Space

Domain 3: Instruction

Component 3a:	Communicating with Students
Component 3b:	Using Questioning and Discussion Techniques
Component 3c:	Engaging Students in Learning
Component 3d:	Using Assessment in Instruction
Component 3e:	Demonstrating Flexibility and Responsiveness

main 2 and 3 to be used in this study. These key terms were developed from a review of the performance indicators of each element described by Charlotte Danielson. The key terms are provided in **Figure 2**.

Evidence data from the components of Domains 2 and 3 of the Danielson Framework were then extracted from the computer-based evaluation system employed by the District. This dataset was then imported into NVivo. Case classifications of "department", "building", and "administrator" were applied to further organize the data. Auto-coding was used to code the evidence in the various components (2a, 2b, etc.) of each Domain. The researcher then coded for the presence of each of the key terms indicated in **Figure 2** and employed a matrix query to develop the adapted output shown in **Table 1**. The numbers within the table indicate the frequency each term was coded within each component. To be clear, the numbers themselves do not indicate "right" or "wrong" in the alignment process, rather it is the text behind the numbers that tells the story in the analysis. The power of NVivo in this process is that the software automatically hyperlinks all cells within the matrix directly to the text evidence. This allows for the exploration of the text data necessary in true qualitative analysis. Through proper qualitative analysis, the data organized in this way can provide school leaders with powerful insight into the observation practices of school administrators as well as insight into instructional practices. Since the case classifications of "department", "building", and "administrator" were applied, the data can be further disaggregated. For the purpose of this study, we will explore these items at the District level.

Analysis

The matrix shown in **Table 1** provides a visual representation of the use of key terms by school administrators in each component of the rubric. As stated previously, the mere presence of a key term in a specific component does not indicate "right" or "wrong" practice. The sole purpose of this analysis should be the intentional use of the data to drive conversations for the purpose of school improvement. The single outcome district leaders should have from these

Figure 2. Danielson Framework for Teaching Key-Word List for Observation Analysis	
Domain 2: Classroom Environment	Domain 3: Instruction
<u>2a: Creating an Environment of Respect and Rapport</u> Interactions Respect Disrespect	<u>3a: Communicating with Students</u> Communicate Directions Procedures Strategies Interests
<u>2b: Establishing a Culture for Learning</u> Expectations Participation Persistence Commitment Demonstrate Effort Understanding	<u>3b: Using Questioning and Discussion Techniques</u> Thinking Questions Discussion Respond Justify Open-ended Wait time
<u>2c: Managing Classroom Procedures</u> Management Groups Transition Materials Supplies Routines Seamless Efficient	<u>3c: Engaging Students in Learning</u> Learning Tasks Instructional Outcome Engaged Intellectual Reflect Improve
<u>2d: Managing Student Behavior</u> Behavior Appropriate Conduct Misbehavior	<u>3d: Using Assessment in Instruction</u> Assess Assessment Feedback Monitor Circulate Criteria
<u>2e: Organizing Physical Space</u> Safe Furniture Arrangement Arranged Technology	<u>3e: Demonstrating Flexibility and Responsiveness</u> Teachable Moment Adjust Confusion

discussions is the purposeful documentation of instructional practices aligned with building and district instructional goals.

The qualitative method used here is designed to reduce the massive amount of data (332 observation reports each with evidence across 10 components) into a more manageable set of data for analysis. This data reduction process is standard across all qualitative methodological approaches. The visual representation of the data shown in **Table 1** was modified by the researcher to allow the reader to visualize the patterns, themes, and discrepancies to be used in the analysis. A quick review of the data reveal that, with few exceptions, the key terms align well with their assigned components. From here, school leaders are able to use NVivo to explore the text behind the numbers. The potential for deep insights into administrative and instructional practice are limitless. For the purpose of demonstration, we will explore one component in this study as an example of how district leaders may use qualitative analysis to explore how instructional practices are being documented by administrators. Within

component 3c (Engaging Students in Learning), the key term, Learning Task, is identified. The documentation of the learning task by in the classroom observation process and subsequent analysis in the process being described here can be instrumental in evaluating the progress of instructional goals. It should be stated that it is not sufficient to expect that this will occur without proper training and coordination of administrative observation practices.

Once properly coded in NVivo, text from the evidence collected in classroom observation reports can be extracted for analysis. In this particular example, text coded as "Learning Task" was extracted. Seven prototypical quotes from some of the 60 items coded at "Learning Task" are provided in **Figure 3**. It is important to note that some of the text has been modified for context and anonymity.

Figure 3. Prototypical Quotes from Text Coded as "Learning Task"

Prototypical Quote #1: High School English Class, Component 2d

"Students remained engaged in the learning tasks throughout the period. Ongoing collaboration within the group allowed for constant discussion. Ms. Teacher consistently circulated the room to ensure students continued with the task at hand. In addition, Ms. Teacher both posed questions and gave feedback as she circulated the room, enhancing discussion and alleviating some off task behavior."

Prototypical Quote #2: Middle School English Class, Component 3c

"Students were required, as a group, to select the posted phrase that stands out the most and explain why. Students were observed selecting their phrase, debating, and completing their task. The pace of the lesson was well established. Mrs. Teacher kept time of the lesson and kept students on task and apprised of their time limits. Students shared their group decisions. Students listened to an audio reading of part of the short story and were required to highlight as appropriate. Mrs. Teacher stopped the reading to have students identify literary elements as they appeared in

Table 1: Frequency of Identified Key Terms in the Components of the Danielson Framework

Component Keywords		2a	2b	2c	2d	2e	3a	3b	3c	3d	3e
Comp 2A	Disrespect	2	0	0	1	0	0	0	0	0	0
	Interaction	32	8	10	5	4	11	10	7	7	0
	Respect	40	6	3	18	0	2	2	4	0	2
Component 2B	Expectations	2	33	13	11	1	16	3	7	3	1
	Participation	15	17	6	6	4	2	7	14	11	0
	Persistence	0	2	0	1	0	0	0	0	0	1
	Commitment	0	2	0	1	0	0	0	0	0	1
	Demonstrate	19	32	11	3	6	16	10	19	10	7
	Effort	20	13	1	7	0	1	3	4	3	0
	Understanding	7	11	3	6	0	12	10	9	17	7
Component 2C	Efficient	0	0	7	0	4	0	0	1	0	0
	Group	4	6	7	2	3	4	5	6	6	3
	Management	2	1	10	5	0	1	0	8	1	5
	Materials	0	7	31	2	18	4	3	9	1	1
	Routines	0	8	78	2	2	2	1	2	0	1
	Seamless	1	3	34	1	4	4	0	3	1	0
	Supplies	0	1	6	0	5	3	4	2	0	0
	Transition	0	3	47	5	9	10	0	6	1	1
Component 2D	Appropriate	7	2	15	26	5	4	5	25	4	2
	Behavior	12	7	3	45	2	4	4	3	2	1
	Conduct	0	5	6	4	1	3	0	2	0	1
	Misbehavior	0	0	0	11	0	0	0	0	0	0
Component 2E	Arranged	2	0	5	1	36	3	0	2	2	0
	Furniture	0	0	0	0	8	0	0	0	0	0
	Safe	2	0	4	1	33	0	1	1	0	0
	Technology	0	4	3	1	10	4	0	10	1	2
Component 3A	Communicate	12	23	2	2	6	47	12	8	2	5
	Direction	2	8	20	6	6	30	2	3	4	1
	Interests	14	12	3	2	2	11	15	23	5	33
	Procedure	3	11	85	3	14	32	7	8	5	3
	Strategies	9	10	9	4	1	20	14	14	10	9
Component 3B	Thinking	2	6	2	1	1	8	20	12	7	4
	Discussion	6	5	4	2	4	8	19	12	4	2
	Justify	0	0	0	0	0	1	2	2	1	1
	Open ended	0	2	2	2	2	6	20	4	3	0
	Questions	4	7	4	6	1	10	11	10	3	2
	Respond	11	9	5	9	2	10	19	9	7	8
	Wait Time	0	0	1	0	0	1	8	3	0	0
Component 3C	Learning task	4	6	5	6	5	3	2	25	2	2
	Improve	2	6	0	0	0	4	5	7	1	2
	Instructional Outcome	0	0	0	0	0	0	0	1	0	0
	Intellectual	3	0	0	0	0	0	0	2	0	0
	Engaged	4	9	5	6	2	5	13	25	1	5
	Reflect	4	12	3	2	1	4	4	35	9	3
Component 3D	Assess	1	1	2	0	2	2	7	10	48	1
	Assessment	2	2	0	0	0	1	0	19	39	0
	Circulate	1	2	2	4	7	2	1	1	2	0
	Feedback	14	12	3	3	0	13	7	9	47	8
	Monitor	2	1	9	20	3	1	0	1	11	8
Comp 3E	Adjust	0	2	1	2	8	3	1	4	5	18
	Confusion	3	3	1	0	0	5	2	2	1	2
	Teachable Moment	0	0	0	0	0	0	1	1	0	4

the story. Instructional materials and instructional activities strongly supported the learning task. Mrs. Teacher's strong understanding of the use of instructional technology was evident throughout the lesson. On the Chromecart, Mrs. Teacher displayed some expectations for annotating. The slides provided for students were appropriate and important to class discussion. Teacher: "The slide displayed is a crest. Draw a circle around something you see and explain what it means to you." Not only does this engage students, but it also requires them to synthesize what they have read and make an inference. Teacher: "Here Poe uses a lot of imagery to help you see what he is talking about. Go ahead and draw what he is talking about. All of your clues are in that paragraph. Remember, you can insert images." Students drew images of what they saw in their head. Following that, Mrs. Teacher showed students an actual clip of the catacombs Poe was talking about. Closure was provided."

Prototypical Quote #3: Primary School, Component 3e

"Learning tasks were differentiated based on student ability levels. It was clear that the topics were formulated with student ability and motivation in mind. The teacher used an extensive repertoire of instructional strategies. The teacher, with the support of the students, created a model for the assignment using the book they read. The teacher conducted mini conferences with students. Students collaborated and learned from each other. The teacher used whole group instruction, individualized and small group instruction to support student needs. "

Prototypical Quote #4: Middle School Science, Component 3c

"Once the station activity began, Ms. Teacher acted as a facilitator of learning by keeping time and providing logistical directions. Students were completely engaged in acquiring their own knowledge based on the station requirement. Stations included a reading station and a writing station. All stations were created to require students to engage with the content at a very high level and create meaning by connecting the learned content. The pacing of the lesson was appropriate to the activities. Ms. Teacher kept accurate time of each station. Enough time was provided for learners to complete the learning tasks. The structure of this lesson was extremely strong and appropriate for the level of learning expectations. Ms. Teacher incorporated the new expectations for learning under the Next Generation Science Standards. Based on student responses observed in this lesson, this is a very effective framework for lesson design. Students were excited by each different station activity. "Oh, it's a matching game." "Oooh, can I spray the water bottle?" All stations were designed with precision, clear learning objectives, variety, and high expectations for thinking and application. Following the station activity, Ms. Teacher said, "Once you get back to your seats, follow the directions on the Smart board. Turn and talk to

someone from a different lab group. What information did you learn? Do you have any new questions? "Closure was provided by giving students an exit slip. "On an index card, write down three things you've learned about watersheds.""

Prototypical Quote #5: Middle School Reading, Component 3c

"The students were engaged in the learning task and the pacing of the lesson was appropriate. The teacher's scaffolding of the lesson prepared students for independent work and small group activities. The teacher started with introducing each type of text structure, giving an example, and having students identify the key words that triggered which text structure it was. Students then watched a music video to reinforce the newly introduced content. The teacher posted task cards around the room; students had the opportunity to move around the classroom and apply what they had learned in the teacher guided activity. The teacher ended the class by having one student share their answer on the task card and responding to the exit question, "Tell me what informational text structure means?" and "Why do we need to learn about it?""

Prototypical Quote #6: Primary School, Component 3c

"The teacher noted that the group that she was working had a great handle on skip counting. She challenged the group to complete the deep thinking activity noting they were ready for a higher level learning task. She supported the students by having them underline the parts so they could solve the problem independently. The teacher broke it down into two parts and then stepped back; students were able to solve the problem with accuracy and share the strategy they used to solve it. The teacher shared that she didn't think of one student's method and loved the way they approached it. Students were given an exit ticket; draw a picture to solve the problem. Students were expected to apply the new strategy they had learned."

Prototypical Quote #7: Middle School English, Component 3c

"Students followed along as the poem, "O Captain! My Captain!" was read by a narrator. Following the discussion on symbolism found in the poem, students were given ten minutes to annotate and understand each stanza based on guiding questions provided by Mrs. Teacher: "What words or phrases stand out as I read?" "What do the author's words cause me to see/feel?" "What information is described in detail?" Once given the guiding questions, students worked in their table groups to complete the learning task as outlined by Mrs. Teacher. During the group discussion, students were on task and engaged. This was evidenced by the conversation observed in each group. Students' responses included: "It's the author's words that describe in detail."

"The ship is the Country." "They are celebrating the captain." "I understand what you are saying." The structure, as planned by Mrs. Teacher, allowed students to see the new learning in context of the broader unit learning. Activities supported the instructional aim. Each group was given an opportunity to display their work by sharing their annotation and thinking about a stanza. As closure, students were asked to develop three text-specific questions. Before they began, Mrs. Teacher reminded students of the established learning goal and explained that their questions must be related to that, bringing the lesson full circle. Students shared one question with the group. Appropriate ELA learning standards were addressed as outlined in the lesson plan. After students shared their questions, each student shifted their question paper to the left. The student who received the paper selected one question to answer as homework. Guidelines for answering the question were provided."

While it is not possible to provide the full text of all items coded at "Learning Task" within the length of this paper, the prototypical quotes in Figure 3 provide a glimpse at the insight school district leaders can gain from this analysis. The data collected here through this cursory analysis could drive initial conversations with administrators in their professional development. From this analysis, the following questions can emerge:

- ✓ *What is the proper way to document the instructional learning task?*
- ✓ *What is the value of documenting the learning task within a classroom observation?*
- ✓ *Where do we align evidence around the learning task within the rubric?*
- ✓ *How do we document the difference between what a teacher indicates as the learning task on a lesson plan versus what the students are actually doing during a lesson?*
- ✓ *Once we spend time documenting the learning tasks through the observation process, can we use this information to develop meaningful instructional goals supported by professional development for our faculty?*

These questions and more can drive crucial conversations with lead evaluators and profoundly shape the documentation of progress of instructional goals within the school improvement process. The thought of expanding this process to the other key terms across all components reveals the potential power of this analysis for school district leaders.

Conclusion

As indicated several times throughout this paper, the purpose of this analysis is not to reveal "right" or "wrong" in the observation process. Rather, this analysis provides meaningful data for use in the change process. The power of the qualitative research software to organize the data and allow the user to perform queries reveals limitless possibilities of analysis. School district leaders can use this information to develop instructional goals, train administrators how to document the occurrence of the instructional goals within classrooms, and then monitor progress on the implementation of those goals. Unlike other initiatives, this program of analysis capitalizes on a process that currently exists across all schools in New York State. It's time to take the data out of the drawer.

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- Rory J. Manning, Ed.D., is the Assistant Superintendent for Curriculum, Instruction and Administration for the Harborfields Central School District and an Adjunct Associate Professor, School of Education, at St. John's University.

The Efficacy of Online K-12 School Leadership Preparation Programs

By Craig Markson, Ed.D.

Abstract

The purpose of this study was to investigate the efficacy of online K-12 school leadership preparation programs. Sixty-five graduates of a K-12 school leadership preparation program from a large public university in New York State were included in this study. A survey was used to collect school leadership program graduates' scores on the New York State School Building Leader (SBL) and School District Leader (SDL) licensure assessments as well as their perceptions of their coursework and internship training in the Interstate School Leader Licensure Consortium (ISLLC) Standards. The results of this study showed no statistically significant differences on scores for SBL Part I, SBL Part II and the SDL Part I licensure assessments among the face-to-face and online groups. However, there were statistically significant differences for SDL Part II scores. The mean scores showed the online instructional program graduates scoring higher on the dimensions of Leading District Educational Programs and Managing District Resources and Compliance. There were little to no statistically significant differences found on the coursework preparation for the ISLLC Standards among the face-to-face and online program graduates. On internship preparation, there were statistically significant differences on ISLLC Standard Three: management of the organization, operations, and resources for a safe, efficient learning environment. Here, online graduates perceived better preparedness than face-to-face graduates. The implications of this research suggested that online school leadership preparation programs can be as effective as face-to-face programs.

I. Purpose

The Interstate School Leader Licensure Consortium (ISLLC) Standards were developed to direct state policy-makers and educational leaders in the selection, preparation, licensing, and continuing professional development for K-12 school leaders. Higher education accrediting councils, such as the Council for the Accreditation of Educator Preparation (formerly called the National

Council for Accreditation of Teacher Education), used the ISLLC Standards to evaluate school leadership preparation programs at colleges or universities undergoing accreditation (Council of Chief State School Officers [CCSSO] 1996; CCSSO, 2008). The ISLLC Standards became the leading standards for the profession of K-12 school leadership, with 43 states adopting them as licensure requirements for school administrators as of 2006 (Derrington & Sharratt, 2008). As of February 2, 2009, passing scores on the New York State School Leadership Assessments became a certification requirement for school administrators to practice in New York State. The New York State Education Department's assessments were based on the ISLLC Standards (Frey, 2008; New York State Education Department [NYSED], 2008a; NYSED, 2008b).

Bredeson (1996) identified program delivery as a significant factor that could impact the quality of school leadership preparation programs. The newest and fastest growing form of program delivery was online instruction. The amount of online courses had been growing by approximately 9.7 percent per year, with about 25 percent of all college students throughout the United States taking at least one online course in 2007. Many colleges or universities estimated that students will be taking over half of their courses online by 2020 (Siegle, 2010; Wuensch, Aziz, Ozan, Kishore & Tabrizi, 2009). While early studies on the quality of online instruction in K-12 school leadership courses showed promising results (Browne-Ferrigno, Muth, & Choi, 2000), there were calls for more survey research comparing groups of online and face-to-face school leadership students on the same research questions or assessments (Thiede, 2011). Because the ISLLC Standards were the premier assessments for K-12 school leadership preparation program quality and with continued calls for research on the quality of online K-12 program delivery, the purpose of this study was to compare face-to-face and online instructional groups on their scores for the New York State School Leadership licensure examinations as well as their own sense of preparedness for the ISLLC Standards.

II. Literature Review

The ISLLC Standards

Leithwood, Jantzi, and Steinbach (1999) conducted a comprehensive review of a large body of research on approaches to educational leadership. Their study was timely in that it was a representative sample of 10 years of research on effective educational leadership strategies during the same decade in which the original 1996 ISLLC Standards were written (CCSSO, 1996). Leithwood et al. (1999) analyzed 121 articles among four national and international journals which included: the *Journal of School Leadership*; *Educational Administration Quarterly*; *Educational Management and Administration*; and the *Journal of Educational Administration*. Their analysis identified 20 different leadership concepts, which they dispersed under six broader categories. These six broader categories included: "instructional, transformational, moral, participative, managerial, and contingent leadership" (Leithwood et al., 1999, p. 7). Cornell (2005) argued that the six school leadership categories identified by Leithwood et al. (1999) could all be associated with the ISLLC Standards.

ISLLC Standard One was "An education leader promotes the success of every student by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by all stakeholders" (CCSSO, 2008, p. 14). The 1996 and 2008 ISLLC Standards further defined Standard One by 29 "Knowledge," "Dispositions," and "Performances" (CCSSO, 1996, pp. 10-11) descriptors as well as five "Functions" (CCSSO, 2008, p. 14). ISLLC Standard One was derived from theories on transformational leadership (Cornell, 2005).

ISLLC Standard Two was "An education leader promotes the success of every student by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth" (CCSSO, 2008, p. 14). The 1996 and 2008 ISLLC Standards had 39 "Knowledge," "Dispositions," and "Performances" (CCSSO, 1996, pp. 12-13) descriptors as well as nine "Functions" (CCSSO, 2008, p. 14) which further defined ISLLC Standard Two. This Standard was based on instructional leadership concepts (Cornell, 2005).

ISLLC Standard Three was "An education leader promotes the success of every student by ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment" (CCSSO, 2008, p. 14). The 1996 and 2008 versions had 38 "Knowledge," "Dispositions," and "Performances" (CCSSO, 1996, pp. 14-15) descriptors as well as five "Functions" (CCSSO, 2008, p. 14). ISLLC Standard Three was created from theories on managerial leadership and organizational development (Cornell, 2005; Fullan, Miles, & Taylor, 1981).

ISLLC Standard Four was "An education leader promotes the success of every student by collaborating with faculty and community members, responding to diverse com-

munity interests and needs, and mobilizing community resources" (CCSSO, 2008, p. 15). The 1996 and 2008 Standards included 29 "Knowledge," "Dispositions," and "Performances" (CCSSO, 1996, pp. 16-17) descriptors as well as four "Functions" (CCSSO, 2008, p. 15). Cornell (2005) argued that ISLLC Standard Four was developed from contingency leadership theories.

ISLLC Standard Five was "An education leader promotes the success of every student by acting with integrity, fairness, and in an ethical manner" (CCSSO, 2008, p. 15). ISLLC Standard Five was also characterized by 29 "Knowledge," "Dispositions," and "Performances" (CCSSO, 1996, pp. 18-19) descriptors as well as five "Functions" (CCSSO, 2008, p. 15). ISLLC Standard Five emerged from theories on moral leadership (Cornell, 2005).

ISLLC Standard Six was "An education leader promotes the success of every student by understanding, responding to, and influencing the political, social, economic, legal, and cultural context" (CCSSO, 2008, p. 15). The 1996 and 2008 versions of Standard Six were further defined by 19 "Knowledge," "Dispositions," and "Performances" (CCSSO, 1996, pp. 20-21) descriptors as well as three "Functions" (CCSSO, 2008, p. 15). Cornell (2005) suggested that ISLLC Standard Six was based on participative leadership theories.

By February of 2009, the ISLLC Standards were used in at least 44 U.S. States for the training, licensing, and professional development for aspiring as well as in-service K-12 school leaders (Derrington & Sharratt, 2008; Frey, 2008; New York State Education Department [NYSED], 2008a; NYSED, 2008b). Higher education accrediting agencies used these standards for evaluating the efficacy of school leadership preparation programs at colleges or universities. As a result, the ISLLC Standards have become the premier standards in the field of K-12 school leadership preparation.

K-12 School Leadership Preparation Program Internships

A major nationwide study by the National Commission on Excellence in Educational Administration (1987) was highly critical of the quality of K-12 school leadership preparation programs in colleges and universities throughout the United States for not including more clinical hours and program internships. Griffiths (1988) maintained that "schools of education must become full-fledged professional schools, not pseudo arts and science colleges" (p. 10) and that the main concern of K-12 school leadership preparation programs should be that of professional preparation. Prior to the establishment of the ISLLC Standards, there were a series of studies that called for closer ties between colleges or universities and K-12 school districts for the purpose of establishing field practice or internships to develop K-12 school leaders (Bredeson, 1996; Gerritz, Koppich, & Guthrie, 1984; Griffiths, 1988; Murphy, 1990; National Commission on Excellence in Educational Administration, 1987).

The National Commission on Excellence in Educational Administration's (1987) report led to the establishment of the ISLLC Standards, which in turn influenced K-12 school leadership preparation programs throughout the United States in adopting internships or field experiences as program requirements (CCSSO, 1996). To be sure, a populace state such as New York has the New York State Education Department mandating program internships for its registered and approved K-12 school leadership preparation programs ("Office of College & University Evaluation home page--NYS Education Department," n.d.). Research studies have continued to highlight feedback from all stakeholders involved in K-12 school leadership preparation and there is a consensus on the importance of a successful internship for candidate leadership readiness (Binbin, Patterson, Chandler, & Tak Cheung, 2009).

Online School Leadership Preparation

Hoban, Neu, and Castle (2002) suggested that "online instruction in educational administration will be and can be a significant aspect of administrator preparation in the future" (p. 24). They concluded that the quality and rigor of online school leadership preparation courses were comparable to face-to-face courses. Their findings were based on surveys disseminated to faculty and students who had experience in both modalities of instruction. Additionally, their findings were also based on the results of student scores on comprehensive exit assessments (Hoban et al., 2002).

Danzig, Zhang, and You (2005) analyzed the pros and cons of online and face-to-face school leadership preparation courses. They found online school leadership preparation to be more compatible with the concept of "Learner Centered Leadership" (p. 26), which supported many of the tenets of the ISLLC Standards. For example, students in asynchronous online discussion boards had more of a voice and freedom to influence the course discussions than was the case in face-to-face course dialogue. Furthermore, Danzig et al. (2005) argued that face-to-face courses took longer to stimulate discourse, with fewer students being vocal, whereas online courses had a much greater degree of participation spread out among the participants. As a result, online leadership courses were more conducive to the shared decision-making and collaborative dispositions of the ISLLC Standards.

According to Danzig et al. (2005), a negative aspect for teaching leadership online was the "gap between the written form of the web class and the mostly face-to-face settings in which leaders practice" (p. 34). Also, there was a tremendous amount of written communication to manage in online courses. They estimated that in an online course of 25 students, a professor and the students could very quickly have to read over 500 electronic postings, well before the course was over. The potential problem caused by this was student or faculty burnout (Danzig et al., 2005).

According to Mayadas and Picciano (2007), online courses promoted retention. This was in stark contrast to

the problems of burnout or lower motivation cited by Danzig et al. (2005). Mayadas and Picciano argued that online courses were instrumental in retaining students with career commitments. Given that many of the students in school leadership preparation programs were in-service teachers or working professionals, the findings of Mayadas and Picciano suggested that online courses would better serve aspiring school leaders (Brown-Ferrigno & Muth, 2006; Mayadas & Picciano, 2007).

A study by Wuensch et al., (2009) included data from 4789 students in 46 colleges and universities across the United States. Email, digital file sharing, asynchronous discussion boards, and presentation software were the most frequent forms of communication found among online courses in this study. These communication methods were quite similar to the most prevalent forms of communication in online courses found in a study conducted 16 years earlier (Holden & Wedman, 1993). More technologically advanced forms of communication, such as two-way audio and video communication or three-dimensional virtual environments, were infrequently utilized (Wuensch et al., 2009).

Okpala, Hopson, Fort, and Chapman (2010) studied 92 students enrolled in online courses in a Master of School Administration program. The participants' perceptions of online learning were overwhelmingly positive, with 94 percent indicating that they planned on taking additional online courses within their program of study. Approximately 82 percent of the online students "reported possessing higher cognitive/analytical skills" (Opala et al., p. 34). The online students also had more self-directed learning styles and higher self motivational skills than their face-to-face student counterparts.

Thiede's (2011) study included 100 in-service principals who were in an online program for school district leadership licensure. Similar to the Okpala (2010) study, the participants had an overwhelmingly favorable opinion of online learning. Convenience was the most frequently cited reason for choosing online courses. Thiede (2011) called for more detailed studies that compared students' perceptions of course quality among online and face-to-face school leadership programs.

Delfin (2012) compared school leadership readiness among candidates trained online and in traditional face-to-face programs. The findings of this study were that there were no significant differences among school leaders trained in online and face-to-face programs in terms of their leadership aptitude. The study concluded by calling for future studies that compared the rigor of online school leadership internships with internships in traditional programs.

III. Data Sources

The data for this study originated from a larger study, by Markson (2013), for a doctoral dissertation at Dowling College. The participants were graduates of a fully online and face-to-face program from a large public university

in New York State. Permission to conduct the study was obtained through both the Internal Review Board for the Protection of Human Subjects in Research (IRB) of the doctoral program as well as the university setting in which the participants were recruited. The participants were program graduates over a three-year period during which the New York State Education Department began mandating its School Building Leader (SBL) and School District Leader (SDL) licensure assessments.

A list of graduates was generated by the participating university and included the mailing addresses of 638 graduates, 593 of which were still valid as confirmed by the 45 returned as undeliverable by the U.S. Postal Service. Of the 593 surveys sent to the valid mailing addresses, 87 completed surveys were returned, resulting in a response rate of 14.67 percent. Of the 87 respondents, 65 were included in this study for falling into either the fully online school leadership program graduates or fully face-to-face program graduates category. Those that took a combination of face-to-face and online courses were excluded from this study. Three participants who were excluded from the prior study for submitting their surveys past the deadline were included in this study. Two were online graduates and one was from the face-to-face program.

IV. Method

Prospective participants were sent letters informing them about the details of the study and that participation was voluntary, confidential, and anonymous. The survey and return envelope were non-identifiable. The mailings included a cover letter containing instructions for the survey as well as a debriefing letter and a stamped, self-addressed return envelope was provided. Prior to the survey mailings, the program director and dean of the school sent an email to program graduates encouraging their participation. This was done to produce a high return-rate. The email also explained that the survey results would be used to guide the school leadership program for future improvements.

The survey included three parts. Part I included a question asking students to identify if they graduated from a fully online school leadership preparation program, face-to-face, or took a combination of online and face-to-face courses. For the purpose of this study, only the fully online and fully face-to-face instructional program graduates were included. The second part of the survey asked program graduates to self-report their test scores on Parts I and II of the New York State School Building Leader Assessments as well as Parts I and II of the School District Leader Assessments.

Part I of the New York State School Building Leader Assessment contained two subareas. "Developing, Communicating, and Sustaining an Educational Vision" or transformational leadership theories were concepts addressed in the first subarea (New York State Education Department, 2008a, Part One section, para. 1). Here there were 30 multiple choice questions and one written assignment, worth 25 percent and 17 percent respectively of the overall test

score (New York State Education Department, 2008a). The second subarea tested for content knowledge of "Managing Change, Making Decisions, and Ensuring Accountability" (New York State Education Department, 2008a, Part One section, para. 2). Here there were 30 multiple choice questions and one written assignment worth 25 percent and 33 percent respectively of the overall test score. Part I of the School Building Leader Assessment contained scores reported on a scale from 100 to 300, with 220 being the minimum passing score (Pearson Education Inc., 2009). The participants in this study self reported their aggregate score for Part I of the School Building Leader Assessment.

Part II of the New York State School Building Leader Assessment contained two subareas: "Leading the Schoolwide Educational Program" (New York State Education Department, 2008a, Part Two section, para. 1) and "Managing School Resources, Finances, and Compliance" (New York State Education Department, 2008a, Part Two section, para. 2). The first subarea had 37 multiple choice questions and one written assignment worth 31 percent of and 33 percent of the total test score respectively. The second subarea had 23 multiple choice questions worth 19 percent of the test score and one written assignment worth 17 percent of the test score (New York State Education Department, 2008a). Part II of the School Building Leader Assessment contained scores reported on a scale from 100 to 300, with 220 being the minimum passing score (Pearson Education Inc., 2009). The participants in this study self reported their aggregate score for Part II of the School Building Leader Assessment.

Part I of the New York State School District Leader Assessment contained two subareas. "Developing, Communicating, and Sustaining an Educational Vision" or transformational leadership theories were concepts addressed in the first subarea (New York State Education Department, 2008b, Part One section, para. 1). Here there were 30 multiple choice questions and one written assignment, worth 25 percent and 17 percent respectively of the overall test score (New York State Education Department, 2008b). The second subarea tested for content knowledge of "Supervising Districtwide Change and Accountability" (New York State Education Department, 2008b, Part One section, para. 2). Here there were 30 multiple choice questions and one written assignment worth 25 percent and 33 percent respectively of the overall test score. Part I of the School District Leader Assessment contained scores reported on a scale from 100 to 300, with 220 being the minimum passing score (Pearson Education Inc., 2009). The participants in this study self reported their aggregate score for Part I of the School District Leader Assessment.

Part II of the New York State School District Leader Assessment contained two subareas: "Leading the Districtwide Educational Program" (New York State Education Department, 2008b, Part Two section, para. 1) and "Managing District Resources and Compliance" (New York State Education Department, 2008b, Part Two section, para. 2). The first subarea had 37 multiple choice questions and one written assignment worth 31 percent of and 33 percent of the

total test score respectively. The second subarea had 23 multiple choice questions worth 19 percent of the test score and one written assignment worth 17 percent of the test score (New York State Education Department, 2008b). Part II of the School District Leader Assessment contained scores reported on a scale from 100 to 300, with 220 being the minimum passing score (Pearson Education Inc., 2009). The participants in this study self-reported their aggregate score for Part II of the School District Leader Assessment.

The third and final part of the survey instrument contained 44 Likert responses to statements regarding participants' reported attitudes toward school leadership preparation training in their program coursework and internship. The items in this part of the survey instrument were adapted from the 1996 ISLLC Standards (CCSSO, 1996); and the 2008 ISLLC Standards (CCSSO, 2008); Green (2009) and a survey created by Colletti (2012). The items were in the form of statements describing events related to learning ISLLC Standard leadership concepts or skills in the respondents' program coursework and internships. For each statement, respondents were asked to express their levels of agreement on a 5-point Likert scale consisting of the following possible responses: (1) strongly disagree, (2) disagree, (3) slightly agree, (4) agree, and (5) strongly agree (Colletti, 2012).

An independent-samples *t* test was conducted to compare assessment score results for SBL Parts I and II as well as SDL Parts I and II between face-to-face and online school leadership preparation program graduates. Independent samples *t* tests were further utilized to determine if there were differences between face-

to-face and online program graduates on their sense of preparation for coursework and internship training in the ISLLC Standards. Finally, a paired samples *t* test was performed for how online and face-to-face program graduates compared on their coursework and internship preparedness for the ISLLC Standards.

V. Results

Table 1 illustrated the results of the independent samples *t* test comparing assessment scores for both parts of the SBL and SDL examinations among face-to-face and online school leadership preparation program graduates.

There was not a statistically significant difference for SBL Part I scores for the face-to-face ($M = 250.34$, $SD = 12.69$) and online ($M = 248.18$, $SD = 19.56$) program graduates; $t(33.032) = 0.457$, $p = .651$. Similarly, there was not a significant difference for SBL Part II scores for the face-to-face ($M = 249.63$, $SD = 15.08$) and online ($M = 251.68$, $SD = 18.91$) program graduates; $t(52) = -0.444$, $p = .659$. There was also not a significant difference for the face-to-face ($M = 249.70$, $SD = 16.00$) and online ($M = 250.35$, $SD = 16.69$) program graduates in scores on SDL Part I; $t(51) = -0.143$, $p = .887$. However, there was a statistically significant difference for SDL Part II scores for the face-to-face ($M = 240.17$, $SD = 13.12$) and online ($M = 247.57$, $SD = 12.60$) program graduates; $t(51) = -2.069$, $p = .044$. The mean scores showed the online instructional program graduates scoring higher on Part II of the SDL assessment than the face-to-face program graduates indicating that the online students scored better in the dimensions of Leading District Educational Programs and Managing District Resources and Compliance.

Table 1

Independent Samples t test Comparing Face-to-Face and Online Program Graduate Assessment scores on SBL Parts I and II as well as SDL Parts I and II ($N_{\text{f2f}} = \sim 32$, $N_{\text{onl}} = \sim 23$)

	Modality	N	M	SD	SEM	t	df	p
SBL1	FaceToFace	32	250.34	12.69	2.24	0.457	33.032	0.651
	Online	22	248.18	19.56	4.17			
SBL2	FaceToFace	32	249.63	15.08	2.67	-0.444	52	0.659
	Online	22	251.68	18.91	4.03			
SDL1	FaceToFace	30	249.70	16.00	2.92	-0.143	51	0.887
	Online	23	250.35	16.69	3.48			
SDL2	FaceToFace	30	240.17	13.12	2.40	-2.069	51	0.044
	Online	23	247.57	12.60	2.63			

Table 2 displays the results of the independent samples t test utilized to determine if there were differences between face-to-face and online program graduates on their sense of coursework preparedness in the ISLLC Standards.

Table 2									
<i>Independent Samples t test Comparing Face-to-Face and Online Program Graduate Coursework Preparedness in the ISLLC Standards (N_{ftf} = ~40, N_{onl} = ~25)</i>									
	Modality	N	M	Range	SD	SEM	t	df	p
ISLLC1	FaceToFace	40	28.3	7-35	3.62	0.57	0.452	63	0.653
	Online	25	27.84		4.52	0.90			
ISLLC2	FaceToFace	40	24.95	6-30	3.00	0.47	-0.628	63	0.532
	Online	25	25.44		3.16	0.63			
ISLLC3	FaceToFace	39	35.7949	10-50	5.91	0.95	-0.974	62	0.334
	Online	25	37.2		5.16	1.03			
ISLLC4	FaceToFace	40	29.125	7-35	3.64	0.58	0.912	63	0.365
	Online	25	28.12		5.25	1.05			
ISLLC5	FaceToFace	40	25.55	6-30	3.37	0.53	0.185	62	0.854
	Online	24	25.375		4.13	0.84			
ISLLC6	FaceToFace	40	25.6	8-40	5.81	0.92	-0.728	63	0.469
	Online	25	26.68		5.83	1.17			

The results of the t test indicated that there were no statistically significant differences between the face-to-face and online instructional program graduates on the selected variables for their sense of coursework preparedness in the ISLLC Standards.

An independent-samples t test was conducted to compare face-to-face and online school leadership preparation program graduates on their internship preparedness for the ISLLC Standards. These results are displayed in **Table 3**.

Table 3									
<i>Independent Samples t test Comparing Face-to-Face and Online Program Graduate Internship Preparedness in the ISLLC Standards (N_{ftf} = ~40, N_{onl} = ~25)</i>									
	Modality	N	M	Range	SD	SEM	t	df	p
ISLLC1	FaceToFace	40	27	7-35	5.00	0.79	-0.693	63	0.491
	Online	25	27.84		4.34	0.87			
ISLLC2	FaceToFace	40	23.58	6-30	3.69	0.58	-1.574	63	0.121
	Online	25	24.88		2.39	0.48			
ISLLC3	FaceToFace	40	34.08	10-50	7.08	1.12	-2.415	63	0.019
	Online	25	38.24		6.21	1.24			
ISLLC4	FaceToFace	40	27.58	7-35	4.91	0.78	-1.276	63	0.207
	Online	25	29.12		4.47	0.89			
ISLLC5	FaceToFace	40	24.28	6-30	4.08	0.65	-0.698	62	0.487
	Online	24	25		3.91	0.80			
ISLLC6	FaceToFace	40	25.2	8-40	6.34	1.00	-0.412	63	0.682
	Online	25	25.84		5.68	1.14			

In **Table 3**, the results of the *t* test indicated that there were no statistically significant differences between the face-to-face and online program graduates on the selected variables for internship preparedness in ISLLC Standards One, Two, Four, Five, and Six. However, there was a statistically significant difference on internship preparedness for ISLLC Standard Three among the face-to-face ($M = 34.08$, $SD = 7.08$) and online ($M = 38.24$, $SD = 6.21$) program graduates; $t(63) = -2.415$, $p = .019$. The mean values showed the online program graduates performing higher on internship preparedness for ISLLC Standard Three than the face-to-face program graduates. ISLLC Standard Three survey items investigated how well graduates believed their internship helped them to "promote the success of every student by ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment" (CCSSO, 2008, p. 14).

Table 4 illustrates the results of the paired samples *t* test for how online program graduates compared on their coursework and internship preparedness for the ISLLC Standards. The results of the *t* test indicated that there were no statistically significant differences between the selected variables for coursework and internship preparedness in ISLLC Standards among online program graduates.

VI. Conclusion

The results of this study showed that online school leadership preparation programs can be as effective as face-to-face programs as measured by program graduate scores on the New York State Education Department's School Leader licensure assessments. In some instances, online

programs were more effective as those that benefitted by graduating from an online instructional program scored higher than their face-to-face counterparts on Part II of the School District Leader licensure assessment. However, there were no statistically significant differences on Parts I and II of the School Building Leader scores as well as Part I of the School District Leader Assessment among face-to-face and online program graduates. Similarly, there were no statistically significant differences when comparing face-to-face and online instructional program graduates on their descriptions of their coursework training in the ISLLC Standards.

There was no statistically significant difference between face-to-face and online program graduates on how they described their internship preparedness on all but one of the ISLLC Standards with the exception of Standard Three, where online graduates rated their preparation higher than the face-to-face graduates. However, it should be noted that the internships in both programs were field-based and not conducted virtually, other than the Internship Seminar course which was co-scheduled with the Internship Field Experience but held virtually for the online students.

Most surprising were the results of the paired samples *t* test for online program graduates' coursework and internship training in the ISLLC Standards. There has been a substantial volume of studies which have shown the internship to be the most valued component of school leadership preparation programs by all stakeholders (Binbin, Patterson, Chandler, & Tak Cheung, 2009). However, the results of the current study showed no statistically significant difference on how online school leadership

Table 4

Paired Samples t test for online Program Graduates' Coursework and Internship Preparedness for the ISLLC Standards ($N_{\text{online}} = 25$)

Variable	Range	<i>M</i>	<i>SD</i>	<i>SEM</i>	<i>t</i>	<i>df</i>	<i>p</i>
ISLLC1 Coursework	7-35	27.84	4.52	0.86	0.000	24	1.000
ISLLC1 Internship	7-35	27.84	4.34				
ISLLC2 Coursework	6-30	25.44	3.16	0.63	0.893	24	0.381
ISLLC2 Internship	6-30	24.88	2.39				
ISLLC3 Coursework	10-50	37.2	5.16	1.51	-0.69	24	0.497
ISLLC3 Internship	10-50	38.24	6.21				
ISLLC4 Coursework	7-35	28.12	5.25	1.03	-0.967	24	0.343
ISLLC4 Internship	7-35	29.12	4.47				
ISLLC5 Coursework	6-30	25.375	4.13	1.02	0.369	23	0.716
ISLLC5 Internship	6-30	25	3.91				
ISLLC6 Coursework	8-40	26.68	5.83	1.03	0.814	24	0.424
ISLLC6 Internship	8-40	25.84	5.68				

preparation program graduates compared their online coursework training with their field-based internship training in the ISLLC Standards.

VII. Limitations of the Study and Recommendations for Future Research

The selected population from this study was limited to graduates of a large public university in the Northeastern region of the United States. The results cannot be generalized to other colleges or universities that do not have similar demographics. Future studies should compare the on-the-job performance of in-service school leaders who graduated from online school leadership preparation programs with those who graduated from face-to-face programs.

VIII. Implications of the Research

If the results of this study remain consistent with future studies, colleges and universities should continue to offer online K-12 school leadership preparation programs. Online instructional programs were shown to be at least as effective as the traditional face-to-face programs and in some instances the online program was superior.

A qualitative interview of instructors' practices from the perspective of the students might reveal certain online behaviors of instructors that produced higher satisfaction and more learning among online students in the School District Administrator preparation program.

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Craig Markson, Ed.D., is Assistant Dean, Teachers' Professional Development Institute and Interim Director, Educational Leadership Program, Stony Brook University.

The Impact of Co-teaching on Pedagogical Approaches and Student Conceptual Understanding in a Graduate, Adolescent Literacy Course

By Patricia N. Eckardt, Ph.D.,
and Vicky Giouroukakis, Ph.D.

Abstract

This hypothesis-generating research study sought to provide further insight into the impact of co-teaching experiences on pedagogical approaches and student conceptual understanding in a graduate, adolescent literacy course. Two professors and 21 students participated in this qualitative study. Collected over the course of a semester, data included student reflections, instructor field notes, and lesson plan rubrics. Four categories emerged from the data analysis: (a) reliability, (b) perspectives, (c) teacher support, and (d) pedagogy. Results indicate co-teaching, coupled with situated learning, solidified student conceptual understanding. It is evidenced that co-teaching is a powerful motivator for acquiring new knowledge when grounded in the theory of situated learning.

Introduction

Co-teaching is defined as the collaboration between two teachers sharing a space and that involves curriculum planning, instruction, and assessment with the goal of enhancing learning for all students (Bacharach, Heck, & Dahlberg, 2007). Although collaboration is used synonymously with co-teaching, the former involves an interaction, while the latter an activity (Friend & Cook, 1992). According to Kariuki and Jarvis (2017), "Co-teaching is an activity that involves a range of collaborative practices based upon the teachers' instructional approaches, whether formally planned or inadvertent" (p. 202).

In higher education, co-teaching is less commonly used and researched (Kariuki & Jarvis, 2017). Nevertheless, in the existing research, benefits of co-teaching in higher education are well documented. Bacharach et al. (2007) found that "the use of co-teaching in teacher preparation is a promising practice for fostering collaborative skills, increasing student participation, and improving classroom instruction and professional growth for all participants" (p. 19).

In their co-teaching study, Crow and Smith (2003) discovered "Students learn to become co-learners/knowledge builders and practitioner-researchers using co-teaching to

role model shared learning and collaborative working within the classroom and highlight the importance of carefully planning co-teaching interaction, including the use of humor, tension, different knowledge bases and styles of debate" (p. 45). Furthermore, the co-teaching model enabled the teachers "to create an active learning environment that facilitated the teaching of collaboration" (p. 45).

Theoretical Framework

Situated Learning

Modeling co-teaching for teacher candidates and demonstrating how to learn through collaboration reflects the theory of situated learning. Situated learning theory posits that adults learn experientially, by applying knowledge; learning is embedded in application, accompanied by socially constructive acts (Utley, 2006). Social interaction and collaboration are essential components of situated learning as learners become engaged in a community of practice which embodies certain beliefs and behaviors to be learned (Lave & Wenger, 1991).

Situated cognition theory (Lave, 1996; Lave & Wenger, 1991) and activity theory (Engestrom, 1990) are aligned with Vygotsky (1978) in the belief that knowledge grows through learners' participation in social activities and with Dewey (1938) who claimed learning needs to be connected to experience and to what is relevant if it is to be meaningful. According to Gee (2000), "Knowing is a matter of being able to participate centrally in practice and learning is a matter of changing patterns of participation" (p. 181).

Co-taught teacher education courses have the potential of influencing how teacher candidates teach by implementing elements of situated learning in their instruction. By providing opportunities for future teachers to observe how to collaborate and co-teach in an authentic context and to make sense of content in social interaction, there is a better chance that learning (knowing and doing) will be maximized.

Methodology

With the intent of adding to the quality of educational practices and student learning, this study provided insight into the impact of co-teaching experiences on both pedagogical approaches and student conceptual understanding. The research design for this qualitative study was hypothesis generating. For purposes of informing personal practice and contributing to the larger field of education, we, the researchers and professors of the course, investigated the following research question: How might a co-teaching model impact pedagogical approaches and student conceptual understanding in a graduate, adolescent literacy course? Student reflections, fieldnotes, and lesson plan rubrics were analyzed and coded based on emerging themes.

Participants

Participants included 21 students enrolled. Student participants were pre-service teacher candidates who specialized in different content areas (math, social studies, English) and adolescent education.

The instructors of the course have over 40 years combined teaching experience on the elementary and secondary levels. Vicky had taught the course before, whereas Trish was teaching the course for the first time.

Course EDU506B

EDU506B is a required course for all preservice teachers and provides a foundation in adolescent literacy teaching and learning. Teacher candidates learn how to design literacy-based lessons to teach their content.

Data Collection and Analysis

Gathered over the course of a semester, data included student reflections, instructor field notes, and lesson plan rubrics.

Student reflections. Student reflections were collected during the third week of class and on the last day of the course. The gathering of reflections in the third

week was intentional, as students needed time to experience the co-teaching model. The first reflection prompted students to consider how this co-teaching model differs from most other classes with one teacher. The final response concluded with a more general question asking students to reflect on material learned, opinions of co-teaching, and commenting on what might be done differently in subsequent classes. Reflections were anonymous; learners were asked to be honest with feedback and not hindered by concern for expressing opinions.

Field notes. Instructors compiled field notes at the end of each lesson to reflect on co-teaching experiences.

Lesson plan rubrics. The culminating activity for this course included a collaboratively designed unit plan that included lesson scenarios as well as one fully developed lesson plan, a benchmark assignment for the course. The lesson plan was evaluated based on a rubric that consists of 25 elements assessing dimensions, such as instructional objectives, developmental procedures, instructional strategies, adaptations, and differentiation.

Results and Discussion

Lesson plan rubrics, student reflections, and instructor field notes provided supportive evidence regarding the benefits of co-teaching on student understandings. Analysis of lesson plan rubrics, student reflections, and instructor field notes generated four categories: (a) reliability, (b) perspectives, (c) teacher support, and (d) pedagogy. **Table 1** presents characteristics of each category. Triangulated data generated the following hypothesis: *When co-teaching is modeled and combined with situated learning, conceptual understandings are solidified.* This finding addresses instructional pedagogy and student learning.

Evaluated on a four-point scale, the mean lesson plan rubric score for the 21 participants was 3.6. (A score of three indicates a student has met expectations; a score of four demonstrates exceeding expectations.) This assignment constituted 25% of the student's final grade. The score of 3.6 reflected teacher candidates' understanding of course content.

Table 1

Co-teaching and situated learning evidenced in unit plans, field notes, and student reflections

Categories	Characteristics
Reliability	Multiple instructors ensure fair grading, class coverage, and content coverage.
Perspectives	Instructors facilitate learning from multiple perspectives.
Teacher Support	Co-teaching offers additional teacher support to foster understanding regarding course content.
Pedagogy	Professors model appropriate pedagogy, necessary behaviors, and instructional practices for teacher candidates that might be evidenced in an adolescent co-taught classroom.

Reliability

The Instructors, along with the teacher candidates, felt secure that the co-teaching model ensured reliability in that content would be covered and support would be provided when necessary. Two instructors vs. one increased the odds of ensuring class would still be held even if one instructor was unable to attend. Both professors met with teacher candidates individually and with their groups to discuss unit plan progress and monitor their understanding.

According to one teacher candidate, having two teachers allows for "more support, more points of view, and less chance of anything being missed." It also meant that different perspectives would enhance student understanding and provide a more complete picture of the curriculum. One teacher candidate stated, "I enjoyed the co-teaching because if one teacher was not available, you always had the other person to go to ask questions about a particular topic. Also, you have two different viewpoints about a particular topic."

Collaboration on course planning and delivery also confirmed what got taught, when, and how. For example, in one of her reflections, Vicky's observations raised important questions that she knew she could share with Trish:

"Students seem to be more settled in their assignments. They seem to know what our expectations are; they are making an effort to understand the course content and apply the material to their discipline-specific contexts. Are we changing certain students' dispositions? Are they buying into these ideas we are trying to promote? Are they understanding how children/people learn and how they can promote learning? I need to discuss all this with Trish...."

Vicky recognized the value of having a co-teacher to share information and concerns about students and the course, discuss pedagogical approaches and outcomes, and plan ahead to ensure expectations are met. Trish's field notes reflected a similar sentiment stating:

"Vicky and I collaborated after class regarding Student A and Student B. If our role is to guide teacher candidates and model appropriate instruction, I feel that the students need to reteach their demonstration lessons. If I was teaching alone, I'm not sure if I would have made this request. I was happy she was in agreement. Co-teaching has helped validate grades, observations, and student needs."

Trish recognized co-teaching verified observations regarding student needs.

"Perhaps the most important finding about reliability was in the grading. The grading process was involved as we both read, commented on, and graded every assignment independently and then came together to compare results. We had in-depth discussions about each

assignment and composed narrative feedback that was typed up and sent to students. This labor-intensive process was invaluable, because it ensured inter-rater reliability, consistency in expectations, and helped us in our professional development as educators."

Perspectives

When asked to reflect on their co-teaching experiences, students reported that instructors facilitated learning by providing multiple perspectives. A teacher candidate commented, "I like this co-teaching model because it brings variety to the classroom. For every lesson, there are two perspectives. This helps make the class move as a discussion rather than a lecture. I think this has helped me stay more engaged."

Another student echoed this sentiment stating, "The co-teaching method differs because you can get the perspectives and experiences of two teachers. The two teachers also build off each other, so it's an interesting way to see scaffolding in the classroom that you'll want to see done in your classroom as the teacher."

Forty-three percent of student responses valued different perspectives and attributed these to facilitating learning. It is important to note, responses were open ended; additional students might have echoed similar sentiments but had not chosen to make this their focus in a response. Moreover, perspectives continued to be an emerging theme when the instructors evaluated the intentional design of student assignments. The collaborative book review, unit plan designs, and co-teaching of unit plan lessons, were all intended to be constructed with peers. Co-creating and co-presenting exemplify foundations of an effective co-teaching partnership.

Teacher Support

Analysis of student reflections demonstrated the co-teaching model offers instructional support. Student comments revealed the belief that multiple teachers respond to student questions at a more rapid pace than if teaching alone, instructors are able to answer additional questions, and multiple professors are more present in group settings. With an additional teacher, a student discussed the importance of two instructors and their responsiveness in a classroom with 21 learners. A teacher candidate responded, "You have twice the chance of getting an answer to a question answered by the teacher, either in class during discussion or at home by emailing both teachers. Also, if one teacher is out you still have class because the other teacher most likely will be there."

Teacher support continued to be a pattern that presented itself outside of the classroom, as well. We continued to work collaboratively and co-teach. We met with students to discuss unit plans, offered guidance when candidates taught demonstration lessons at local public schools, and collaborated at a professional literacy conference.

The culminating example of co-teaching coupled with situated learning was demonstrated when two adolescent literacy students co-presented unit plans at a regional literacy conference. Following our introduction of the assignment, teacher candidates collaboratively took the lead. Teacher candidates co-constructed their power point and demonstrated a co-teaching model when presenting together. Presentations demonstrated comprehension of course content; understandings were engrained through this situated learning activity. Co-teaching was the catalyst for this trajectory.

Pedagogy

In 506B, co-teaching was a means to deliver instruction on collaboration and give teacher candidates opportunities to practice these skills with peers from different disciplines. This supported a richer conceptual understanding of collaboration. Collaboration included co-planning, using different co-teaching models, and debriefing and assessing ourselves as well as our students. Instructors tried to model appropriate pedagogy and, in turn, teacher candidates applied the knowledge and skills of collaboration by working with their peers both in the classroom and in the field. A teacher candidate commented, "On top of the material that we are learning this class is serving as a good model for how co-taught classes should be."

In the classroom, two assignments were done collaboratively--the unit plan design/presentations and the collaborative book review--with excellent results. In her fieldnotes during one of the unit plan presentations, Vicky commented on how impressed she was with how poised and confident teacher candidates had become since the first presentation, the book review.

Teacher candidates also elected to co-teach when it was not a requirement. For example, one of the math groups decided to co-teach their lesson plans, so the three teacher candidates were able to hone their co-teaching skills. Upon observing this co-teaching situation, the social studies group also followed suit and commented on how the process made them more comfortable with sharing their learning with one another.

Collaboration on course assignments also meant that additional time and effort would be required, but teacher candidates all reported that the experience was meaningful. One teacher candidate expressed her initial reticence about the class and eventual epiphany:

"The class was not what I expected at first. I was so overwhelmed and felt defeated. As the semester went on, this class taught me that nothing comes easy and that I would have to put in the extra time. I have never had such a rewarding experience working so hard in a class. I've learned so many new literacy strategies, and how to collaborate with fellow teachers. The unit plan was one of the most useful things I have done....could be a real unit in a school."

Conclusion

Results indicated that co-teaching as a pedagogical approach increased teacher candidates' conceptual knowledge of collaboration and content. By applying situated learning to the challenge of how teacher candidates understand co-teaching, the course fostered opportunities for authentic practice and experiential learning. It is evident that when co-teaching is modeled and combined with situated learning, conceptual understandings are solidified.

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- Patricia N. Eckardt, Ph.D., is an Assistant Professor of Education at Molloy College, in Rockville Centre, NY.
- Vicky Giouroukakis, Ph.D., is a Professor of Education at Molloy College, in Rockville Centre, NY.

Book Review

The Innovator's Mindset

By George Couros (2015)

Publisher: Dave Burgess Consulting Inc., San Diego CA.

George Couros, the author of *The Innovator's Mindset*, is a name well known in current discourse about educational leadership, technology, and innovation. His newsletters, blogs, and social media activity draw international interest regarding change in schooling for the Twenty-first Century.

This reviewer initially wondered about the author's use of the possessive in the word *Innovator's*. That is, in placing the apostrophe after the "r" does he imply that innovation is an individual endeavor? It often may be. However, were the apostrophe placed after the "s", a different inference might be assumed. Innovation and the mindset requisite for it to flourish might be served by the notion that creative thinking and leadership, co-initiation, and sustenance of new systems are a function of a collective organizational culture. In other words, are the leader and her stakeholders the ones who shape a culture disposed to and capable of creative problem solving?

Couros offers many insights that align very well with a theme of collective empowerment and fostering the contagious feeling of Gladwell's "tipping point" where the critical mass of stakeholders collectively embraces innovative restructuring in the process of educating children.

Couros has found the balance between scholarly themes and substantiated research, with highly conversational and often personal, reflective language. He enables

readers to engage the ideas he offers and helps them to apply them to their own professional leadership practices. In addition, he provides discussion questions at each chapter's end that would provoke deeper dialogue among colleagues who share this book.

More importantly Couros backs up his passion with a wide range of leadership experiences and ideas. The book's structure is divided into four main parts: Innovation in Education, Laying the Groundwork, Unleashing Talent, and Concluding Thoughts. Several chapters explore issues such as, what exactly is an innovator's mindset; the essential component of relationship building; and embracing an open culture.

It is the issue of open culture that returns the reviewer's thoughts to the initial question of group and individual impact on innovation. Edgar Schein stated that "culture is what we do." If culture is a product of our hidden assumptions and beliefs, then dispositions towards innovation are dependent on the extent to which the leader has influenced her stakeholders to feel unthreatened and to take a risk, to change, and to innovate.

Couros goes a long way towards challenging rigid non-inventive mindsets amongst educators and offering processes to consider how to move an organization into an emerging future that will demand constant, systemic, futures-based innovation.

Reviewed by Richard Bernato Ed. D., Associate Professor, Administrative and Instructional Leadership, St. John's University.



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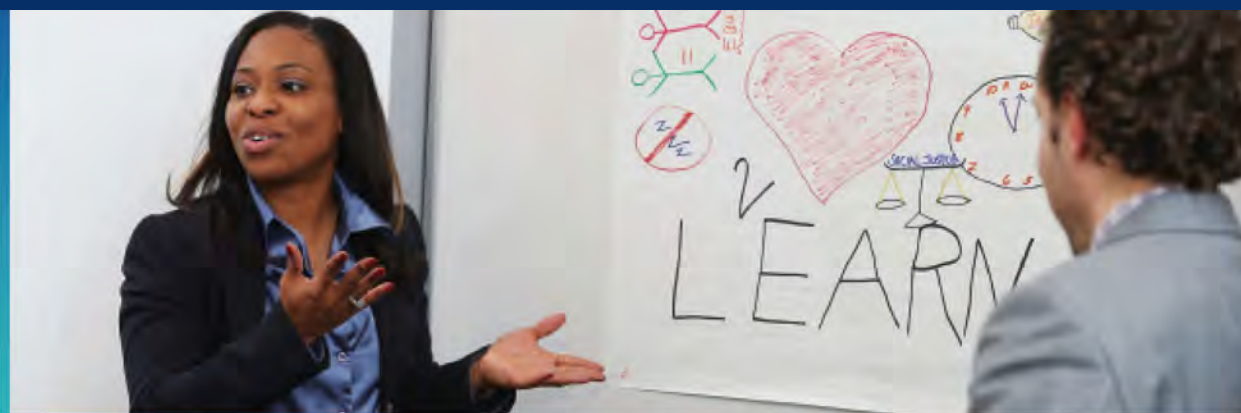
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Assistant Professor, Education Specialties &
Administrative and Instructional Leadership
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mangior1@stjohns.edu

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