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Sex-Related Education:
Teacher Preparation and Implementation

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Abstract: Negative health and academic outcomes have long been associated with risky adolescent sexual behavior. Recent research suggests school-based comprehensive sexual education programs are effective at reducing these behaviors. However, the effectiveness of these programs is dependent on the professional development of those responsible for sex-related education (SRE) implementation. A representative sample of SRE instructors from middle and high schools across Mississippi reported their training for and implementation of state laws regarding SRE. Topics instructors stressed in the curriculum were found to be highly correlated to the topics for which they received professional development. At the same time, instructors reported receiving very few hours of professional development related to SRE. SRE instructors also reported that their greatest need was more professional development. Study findings indicate that SRE instructors should be trained in the specific curriculum as well as in how to effectively present these often personal and sensitive subjects to adolescents.

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INTRODUCTION

Mississippi has long struggled with the consequences of risky adolescent sexual behavior (Kost & Henshaw, 2014). Such behaviors can result in negative health and academic outcomes for adolescents and young adults such as STIs, unintended pregnancy, and dropping out of school (Grossman et al, 2014). Kirby (2007) found that one of the most effective ways to reduce these risky behaviors is through school-based comprehensive sexual education programs. Theory-based, developmentally appropriate sex-related education (SRE) programs have been shown to delay sexual debut for middle school students, particularly when coupled with family support and parental involvement (Grossman et al, 2014).

An increasing body of evidence shows that a health-focused, holistic approach to SRE programs can help to reduce those public health problems that result from risky adolescent sexual behavior (Douglas & Fenton, 2013).

However, while research is continuing to show that effective SRE programs have positive benefits, the actual implementation of these programs has been hindered by a lack of proper training for SRE instructors, with the majority of health education teachers in the United States lacking any professional health education training at either the undergraduate or graduate level (Hammig, Ogletree, & Wycoff-Horn, 2011). This is especially concerning for sexual education programs,

as research has shown that SRE programs are more effective when the instructor is specifically trained in methods of sexuality education (Rhodes, Kirchofer, Hammig, & Ogletree, 2013). Teacher training has a strong impact on content delivery of sensitive material such as the prevention of STIs, drug use, pregnancy, and suicide, and teachers who are specifically trained on how to present these topics were found to be 2 to 6 times more likely to provide their students with needed content in those areas (Hammig, Ogletree, & Wycoff-Horn, 2011). Conversely, untrained instructors may feel anxiety about teaching subjects which they consider controversial and may delete or gloss over such subject material in the curriculum (Barr et al, 2014; Hammig, Ogletree, & Wycoff-Horn, 2011).

Most degree programs, even those in teacher education and health education, do not provide any formal training in sexuality education and do not stress the pedagogical challenges that SRE programs present to instructors (Oerton & Bowen, 2014; Eisenberg et al, 2010). The need for effective teaching strategies and skills has been recognized by leading sexual health education organizations through the development of the National Teacher Preparation Standards for Sexuality Education (NTPSSE) (Future of Sex Education, 2014). Though designed for use in higher education teacher preparation programs, the NTPSSE standards also provide useful guidance for the professional development of existing sexuality educators. (Fisher & Cummings, 2015). The standards not only address content knowledge, but also address the unique sexuality education competencies needed in the areas of professional disposition, diversity and equity, legal and professional ethics, as well as planning, implementation and assessment (Future of Sex Education, 2014). This theme comes up time and again in various research using focus groups with SRE instructors and health educators. Eisenberg et al (2010) found that even if an instructor was given basic information on the subject material, they still did not feel as if they were prepared to teach it, as sexual topics often require different teaching strategies to be effective in a classroom setting. Similarly, sexuality educators surveyed by Fisher & Cummings (2015) more frequently requested professional development on effective teaching and engagement strategies than on content knowledge. Development for these instructors should give experience in content knowledge but also in pedagogical skills to address the distinctive barriers that hinder the effective implementation of comprehensive sex education (Fisher & Cummings, 2015). A lack of professional development can leave teachers feeling as if they are working with little or no guidance, and those who feel uncomfortable with value-laden sexual content often do not get the chance to gain any confidence with the materials (Buston, Wight, & Scott, 2001). Participants themselves stressed the importance of feeling comfortable when teaching sexual education programs, and yet commonly reported their own discomfort due to lack of training, resulting in instructors who are viewed as vague, closed, and uncomfortable when teaching these subjects (Buston, Wight, & Scott, 2001). In addition, classroom discussions of sexual topics may lead to situations wherein students are divulging personal information, and teachers may not be trained in addressing these sensitive matters. Such conversations could require that a teacher become more involved legally or personally than they are prepared or trained for (Eisenberg, Madsen, Oliphant, & Sieving, 2013).

While studies have shown that a lack of professional development can negatively affect the effectiveness of sexual education programs, they have also shown that intensive, focused teacher training in these areas can boost the confidence of the instructors (Buston, Wight, Hart & Scott, 2002). In addition, this type of training can also encourage teachers to more aptly cover key sexuality topics that otherwise might have been excluded from the curriculum (Rhodes, Kirchofer, Hammig, & Ogletree, 2013).

Teacher preparation became paramount in Mississippi with the 2011 enactment of mandatory SRE in public schools. Prior to 2011, Mississippi had no mandatory SRE requirement. During the 2011 legislative session, Mississippi legislators passed HB 999 requiring all public school districts to implement SRE programs during the 2012-2013 school year. School districts were required to implement either Abstinence-Only (AO), Abstinence-Plus (AP), or the SRE program developed by the Mississippi Department of Human Services and the Mississippi Department of Health. Schools choosing to adopt AO curriculum were required to provide instruction containing some or all of the following components:

- "the social, psychological, and health gains to be realized by abstaining from sexual activity, and the likely negative psychological and physical effects of not abstaining;"
- "the harmful consequences to the child, the child's parents and society that bearing children out of wedlock is likely to produce, including the health, educational, financial and other difficulties the child and his or her parents are likely to face, as well as the inappropriateness of the social and

economic burden placed on others;"

- "that unwanted sexual advances are irresponsible and teaches how to reject sexual advances and how alcohol and drug use increases vulnerability to sexual advances;"
- "that abstinence from sexual activity before marriage, and fidelity within marriage, is the only certain way to avoid out-of-wedlock pregnancy, sexually transmitted diseases and health related problems;"
- "a discussion of condoms or contraceptives but only if the discussion includes a factual presentation of the risks and failure rates of those contraceptives; the discussion may not include any demonstration of how condoms or other contraceptives are applied;"
- "the current state law related to sexual conduct, including forcible rape, statutory rape, paternity establishment, child support and homosexual activity; and"
- "that a mutually faithful, monogamous relationship in the context of marriage is the only appropriate setting for sexual intercourse." (Miss. Code Ann. §37-13-171 and §37-13-173)

Schools adopting AP curriculum must include all of the AO components and may also choose to address the nature, causes, effects, and prevention of sexually transmitted diseases including HIV/AIDS, and other contraceptives along with their risks and failure rates. Under no circumstances can either AO or AP curriculum include instruction that abortion could be used to prevent the birth of a baby. In addition to addressing curriculum requirements, the law allows school districts to host programs for parents on how to discuss abstinence with their children, requires gender separation for all SRE, and requires schools to provide notice to parents allowing them to "opt-in" to SRE instruction. While the new law detailed the content for SRE curriculum and requirements for parental consent, it was silent as to credentials or professional requirements for SRE instructors.

Researchers at The University of Southern Mississippi (USM), in conjunction with the Center for Mississippi Health Policy, have followed implementation of the 2011 law since its passage. An implementation study conducted in 2015, Sex-Related Education Policy and Practices in Mississippi Public Schools, included measures to evaluate teacher professional development related to SRE instruction in light of the new mandatory SRE requirements.

METHODS
Subjects and Sampling

The sample used for this study was initially established by Westat, Inc. for the School Health Profiles (biannual collaborative efforts between the Centers for Disease Control and Prevention and state and local education and health agencies to assess school health policies and programs). All regular secondary public schools having at least one of grades 6 through 12 were included in the sampling frame. Schools were sorted by estimated enrollment in the target grades within school level (high schools, middle schools, and junior/senior high schools combined) before sampling. Systematic equal probability sampling with a random start was used to select schools for the evaluation.

All randomly selected middle and high schools who had participated in the 2014 School Health Profiles were invited to participate in evaluation of SRE. A total of 173 (74%) of 233 invited schools participated in the study.

A primary person at each school who was responsible for teaching SRE completed the questionnaire. That person was invited to participate in the study by completing the SRE questionnaire and attend a focus group. A total of 65 SRE instructors also participated in the focus group. It is important to note that SRE was provided primarily by individuals who teach health education, physical education, or family dynamic. However, in some schools it was provided by school administrators, nurses, nutrition or other food service staff, or mental health/social services staff.

Instruments

A 30-item questionnaire was constructed, then reviewed, revised, and approved by representatives of the Mississippi Department of Education's Office of Healthy Schools. Questions focused on the requirements of the law, the professional development of instructors, and actual implementation of the curriculum in each school. Two-open ended questions related to challenges and barriers experienced by teachers and suggested changes for making SRE more effective were also included.

Procedures

The study received Institutional Review Board approval through the Human Subjects Committee at USM. Superintendents and principals from the 233 randomly selected schools were first contacted by mail in mid-

February 2015 by the State Superintendent of Education, informing the schools of the study. The principals also received a self-addressed, stamped postcard to provide the contact information of the SRE instructor. Principals received follow-up correspondence via mail, email, phone, and fax to gather the contact information of the individual responsible for teaching SRE at the school. Once the principal provided the name of the SRE instructor, that person was contacted via phone, email, and fax to invite them to participate in the study by completing the questionnaire and attending the focus group meeting. Data collection continued through May 2015.

RESULTS
SRE Instructors

SRE instruction was provided primarily by health education teachers (46.3%), physical education teachers (27.5%), other classroom teachers (19.5%), school nurses (18.8%) and mental health/school counselors (8.1%). However, these findings varied by grade level.

Among middle schools, SRE instruction was distributed among physical education teachers (37.8%), followed by nurses (21.6%), health education teachers (20.3%) and mental health counselors (14.9%). Among high schools, SRE instruction was distributed among health education teachers (78.7%), followed by physical education teachers (17.0%), and school nurses (6.4%).

Coverage of Required Content

The SRE instructors were asked to indicate whether SRE instruction in their schools included items identified as written in Mississippi Code 37-13-171 (see Appendix A for the full list of items). The four areas most frequently reported as being covered in SRE instruction were:
- 93.1% - The social, psychological and health gains to be realized by abstaining from sexual activity, and the likely negative psychological and physical effects of not abstaining.
- 90.6% - That abstinence from sexual activity before marriage, and fidelity within marriage, is the only certain way to avoid out-of-wedlock pregnancy, sexually transmitted diseases and related health problems.
- 87.2% - That unwanted sexual advances are irresponsible and teaches how to reject sexual advances and how alcohol and drug use increases vulnerability to sexual advances.
- 78.5% - The harmful consequences to the child, the child's parents and society that bearing

children out-of-wedlock is likely to produce, including the health, education, financial and other difficulties the child and his or her parents are likely to face, as well as the inappropriateness of the social and economic burden placed on others.

The three areas least frequently reported as being covered were:
- 40.3% - The current state law related to sexual conduct, including forcible rape, statutory rape, paternity establishment, child support and homosexual activity.
- 16.1% - How condoms or other contraceptives are applied.
- 15.4% - That abortion can be used to prevent the birth of a baby.

The three areas with the widest difference between AO and AP schools were:
- 47.2% vs. 77.1% - About condoms or contraceptives, but only if that discussion includes a factual presentation of the risks and failure rates of those contraceptives
- 25.0% vs. 56.3% - The current state law related to sexual conduct, including forcible rape, statutory rape, paternity establishment, child support and homosexual activity.
- 61.6% vs. 91.7% - About other contraceptives, the nature, causes and effects of sexually transmitted diseases, or the prevention of sexually transmitted diseases, including HIV/AIDS, along with a factual presentation of the risks and failure rates.

Professional Development Received on SRE

Instructors were asked to indicate whether they received training/professional development to teach SRE in each of the areas identified in Miss. Code Ann. §37-13-171 and §37-13-173 (see Appendix A). It should be noted that at much lower percentages, the responses and patterns by policy and grade level appear to parallel the responses on coverage of required content. This correlation is illustrated in Table 1. Across the board, AP schools typically indicated higher rates of professional development than all other groups.

As illustrated in Table 1, instructors most commonly reported professional development on:
- 64.6% - The social, psychological and health gains to be realized by abstaining from sexual activity, and the likely negative psychological and physical **effects of not abstaining.**
- 61.9% - The **harmful consequences** to the child,

Table 1: *Coverage of Content Compared to Professional Development*
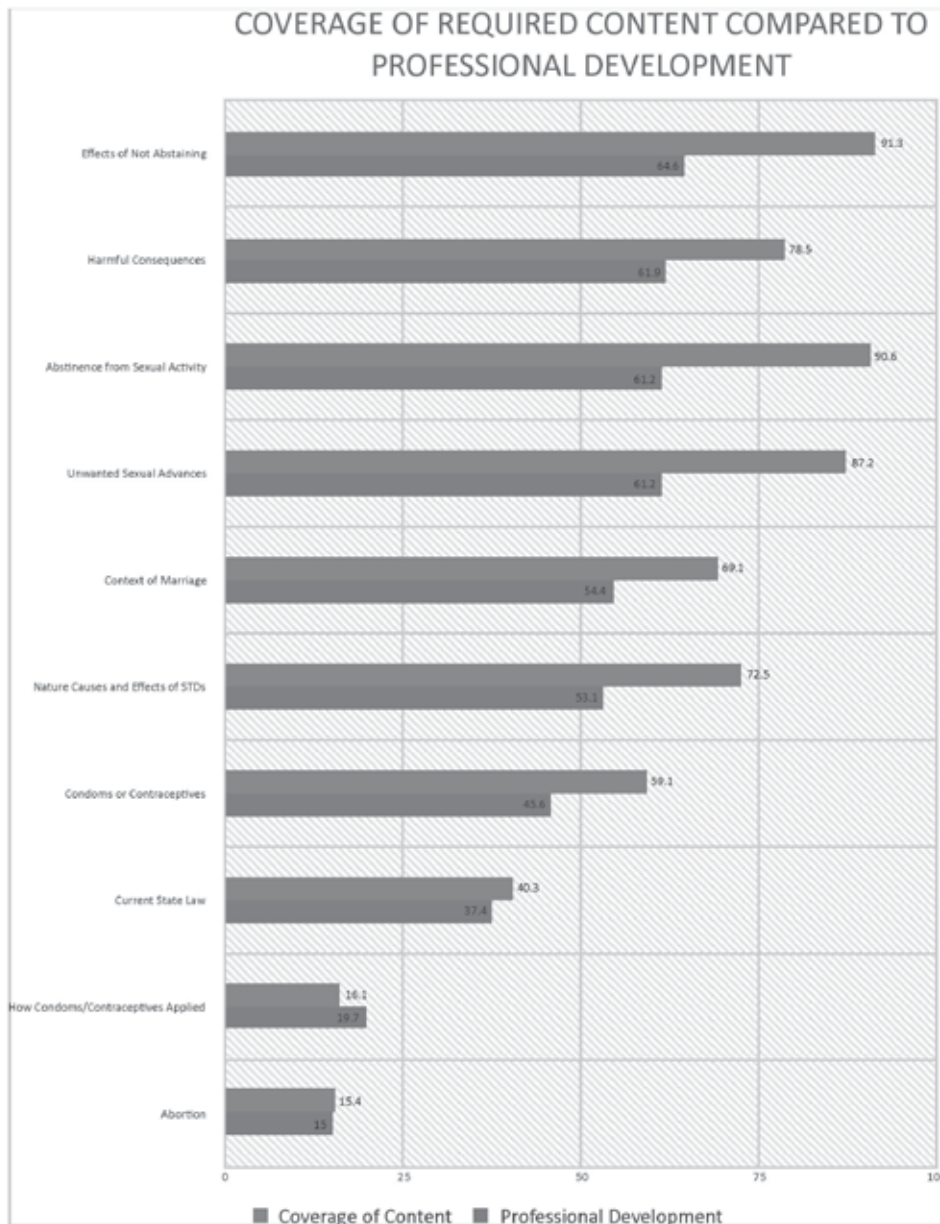
COVERAGE OF REQUIRED CONTENT COMPARED TO PROFESSIONAL DEVELOPMENT

Category	Coverage of Content	Professional Development
Effects of Not Abstaining	91.3	64.6
Harmful Consequences	78.5	61.9
Abstinence from Sexual Activity	90.6	61.2
Unwanted Sexual Advances	87.2	61.2
Context of Marriage	69.1	54.4
Nature Causes and Effects of STDs	72.5	53.1
Condoms or Contraceptives	59.1	45.6
Current State Law	40.3	37.4
How Condoms/Contraceptives Applied	16.1	19.7
Abortion	15.4	15

the child's parents and society that bearing children out of wedlock is likely to produce, including the health, education, financial and other difficulties the child and his or her parents are likely to face, as well as the inappropriateness of the social and economic burden placed on others.

• 61.2% - That **abstinence from sexual activity** before marriage, and fidelity within marriage, is the only certain way to avoid out-of-wedlock pregnancy, sexually transmitted diseases and related health problems.

• 61.2% - That **unwanted sexual advances** are irresponsible and teaches how to reject sexual advances and how alcohol and drug use increases vulnerability to sexual advances.

They were less likely to receive professional development on:

• 54.4% - That a mutually faithful, monogamous relationship in the **context of marriage** is the only appropriate setting for sexual intercourse.

• 53.1% - About other contraceptives, the **nature, causes and effects of sexually transmitted**

diseases, or the prevention of sexually transmitted diseases, including HIV/AIDS, along with a factual presentation of the risks and failure rates.
- 45.6% - About **condoms or contraceptives**, but only if that discussion includes a factual presentation of the risks and failure rates of those contraceptives.

They were least likely to receive professional development on:
- 37.4% - The **current state law** related to sexual conduct, including forcible rape, statutory rape, paternity establishment, child support and homosexual activity.
- 19.7% - **How condoms or other contraceptives are applied**.
- 15.0% - That **abortion** can be used to prevent the birth of a baby.

Hours of SRE Professional Development Received

In hours per year, the SRE instructors reported the standard amount of annual training/professional development for teaching SRE. Approximately one third (32.0%) left this question blank. Of those 117 (68.0%) who responded, 35.0% indicated receiving no training/professional development for teaching SRE. Another 46.2% indicated receiving 8 or fewer hours of training/professional development. The remaining 18.8% indicated receiving more than 8 hours of training/ professional development.

Among AO schools, 17.8% left this question blank. Of those who responded, 43.3% indicated none (0%), and just over half (51.7%) indicated 8 or fewer hours of training/professional development. The remaining 5.1% indicated receiving more than 8 hours of training/ professional development.

Among AP schools, 25.0% left this question blank. Of those who responded, 19.4% indicated none (0%), and 52.8% indicated 8 or fewer hours of training/professional development. The remaining 27.8% indicated receiving more than 8 hours of training/professional development. Among middle schools, 34.4% left this question blank. Of those who responded, 27.1% indicated none (0%), and 52.5% indicated 8 or fewer hours of training/professional development. The remaining 20.3% indicated receiving more than 8 hours of training/professional development.

Among high schools, 33.3% left this question blank. Of those who responded, 55.6% indicated no hours of training/professional development, and 27.8% indicated 8 or fewer hours of training/professional development. The remaining 16.7% indicated receiving more than 8 hours of training/professional development.

It appears that SRE instructors in AP schools received more hours of professional development for teaching SRE. Also SRE instructors in middle schools reported receiving more hours of professional development than those teaching SRE in high schools. Many of the SRE instructors indicated the professional development they received was a one-time-only training.

How SRE Professional Development was Provided

Of the 73.4% of instructors who responded to how they received training/professional development, training was primarily provided in the form of workshops, followed by seminars, or conferences. A few instructors (13.4%) noted their training was provided by the curriculum providers for their school or was provided as a district-wide training.

Instructor Interest in More SRE Professional Development

Over three-quarters (76.3%) of SRE instructors indicated that they would be interested in more professional development, including 72.5% among AO schools, 78.3% among AP schools, 82.9% among middle schools, and 71.4% among high schools.

Barriers to SRE Professional Development

Approximately half (45.8%) of the SRE instructors indicated barriers to receiving the SRE training/ professional development that they needed, including 45.1% among AO schools, 47.8% among AP schools, 48.6% among middle schools, and 40% among high schools.

Barriers most frequently cited by the SRE instructors included the time they spent away from work for training. Also noted was the cost related to receiving SRE training, obtaining district and school approval, and awareness and availability of SRE training they needed.

Topics Desired by Instructors for SRE Professional Development

The most frequently noted topic for future SRE professional development was effective instruction and strategies for keeping the attention of students.

Instructors also reported a desire for professional development on contraceptives, STIs, AIDS, LGBTQ education, and teen pregnancy.

Suggested Changes for Making SRE More Effective

Just over half (58%) of the instructors responded to the open-ended question regarding suggestions for making SRE more effective. The most frequent answer was training for all SRE instructors (23%), followed by SRE beginning at a younger age (12.1%), parental and community involvement and education (12.1%), and offering SRE as a required course (11.1%).

Focus Groups

The focus group discussions brought to light several themes regarding the important considerations of those who are teaching SRE in the state of Mississippi. Many of the focus group participants voiced a great need and desire for professional development or training related to SRE. Many stated that they were not sure what exactly they were supposed to be teaching and had simply been given a book before the school year with instructions to teach SRE. Many expressed appreciation for the focus group opportunity. Hearing other SRE instructors share their experiences provided them with ideas of ways to implement SRE in their schools as well as a sense validation because they were often experiencing similar struggles. One of those common struggles involved a feeling by SRE instructors of not being supported by the administration at their schools. A second common struggle indicated by the focus group participants was that the curriculum and policy adopted by their schools did not always fit the needs of their students, limiting their ability to address topics they felt were beneficial and to respond to student questions. Overall, the focus group process was a positive experience for the participants with many asking if this could become a recurring event.

DISCUSSION

Sex Related Education (SRE) instruction in Mississippi public schools was provided by a variety of instructors, including health education teachers, physical education teachers, and nurses; however, instructor type varied by grade level. Significant differences were seen between middle schools and high schools with high schools relying much more heavily on health education teachers (78.7%) compared to middle schools (20.3%). In comparison, most SRE instructors (37.8%) in middle schools were physical education teachers. The coverage

of SRE content was also varied, with some subjects being taught more frequently than others. The coverage of SRE content was closely related to professional development received by instructors. It is also important to note that instructors at AP schools typically reported higher rates of professional development than other groups, which is a possible reflection of the mandatory coverage of the additional topics outside what is covered at AO schools.

Relationship of Teacher Professional Development to Content Covered

The importance of professional development is clearly defined in the responses of teachers to study questions regarding professional development in relation to the subjects that are taught. There is a correlation between the subjects that are taught by the SRE instructors and the areas in which they received professional development. The highest rates of professional development were in areas that were most frequently covered by SRE instructors. For example, 93.1% of instructors reported the effects of not abstaining from sex as covered in SRE instruction and 64.6% of instructors reported receiving professional development in this area. 90.6% of instructors reported covering abstinence from sex and 87.2% reported covering unwanted sexual advances while 61.2% of instructors reported receiving professional development in both areas. Additionally, 78.5% of instructors reported the harmful consequences of bearing children out of wedlock as being covered and 61.9% reported receiving related professional development.

This same pattern can be seen in the subjects that are least likely to be covered and the areas that instructors receive the least professional development. 40.3% of instructors reported covering state law related to sexual conduct and 37.4% reported receiving professional development in this area. 16.1% reported covering the application of condoms or other contraceptives and 19.7% reported receiving professional development in this area and 15.4% of instructors reported covering abortion while 15% reported receiving professional development regarding abortion.

This correlation exemplifies the importance of professional development as it relates to the comprehensiveness of sexuality education. When teachers do not have training prior to teaching they are less likely to teach the more controversial subjects and are less likely to teach key sexuality topics than professionally trained teachers (Rhodes, 2013). Teacher training has been called, "the most significant factor

in determining the comprehensiveness of the sexuality education instruction and the number of sexuality topics taught within any curriculum" (Barr, 2014) and the responses to the study questions reflect this relationship.

Under the current Mississippi law for AP instruction the curriculum is required to cover a wide range of topics, some of which instructors may find controversial; a lack of professional development in these areas may in turn lead to a lack of instruction in the SRE that students receive. Teachers may not be covering all areas of SRE because of this lack of training, which also reduces the comprehensiveness of the SRE provided to students. However, it is still unknown whether teachers are not teaching subjects because they do not have training in that area or if they only sought out training in areas they believed to be most important to teach. In either event, the importance of professional development and its role in what is taught as part of SRE curriculum is clear.

Limited Teacher Professional Development and Teachers' Desire for More

Although the importance of professional development can be seen in the study results, over 1/3 of respondents did not receive any SRE professional development and 80% received less than 8 hours total. When broken down into curriculum type, 95% of AO teachers received less than 8 hours of professional development compared to 72% of AP teachers. This indicates that AP teachers may be better prepared to teach AP curriculum, which Mississippi law mandates must include all of the elements that are listed in the Mississippi statute. SRE instructors in middle schools also reported receiving more hours of professional development than those in high schools, however, many of the instructors (at all levels) reported that the training was one-time-only rather than ongoing. These findings are consistent with other studies which found that it is not uncommon for SRE instructors to have little to no specific or formal SRE training (Eisenberg, 2010). Buston, Wight, & Scott (2001) illustrate this point with a teacher from one study who claimed the, "only preparation she had for delivering sex education was 'being married with four children.'" In another study by Rhodes, Kirchofer, Hammig, & Ogletree (2013), most of their sample was lacking in health education and public health training and was not considered professionally prepared.

Though most instructors have very little SRE training, about 76.3% reported that they would be interested in more professional development, with more AP instructors (78.3%) compared to AO instructors (72.5%) and more middle school instructors (82.9%) compared

to high school instructors (71.4%). However, about half of the instructors listed barriers to receiving the training they needed. These barriers included the time they spent away from work for training, since most training was received in workshops, seminars, and conferences outside of the district, as well as the cost of training. These results reflect similar findings in other studies, specifically studies by Buston et al (2001 & 2002), which express the need for significant amounts of time for preparation, training, and course development.

Preferred Professional Development Topics

When asked what specific topics warranted more professional development, the majority of SRE instructors reported an interest in teaching strategies and strategies to engage students— results which are similar to a study by Fisher & Cummings (2015) which found teachers were in need of strategies on how to effectively reach target populations and a study by Eisenberg et al (2010) which found teachers believed "methods courses" were particularly useful. Instructors also reported wanting more professional development on specific topics such as contraceptives, STIs, AIDS, LGBTQ education, and teen pregnancy. In addition, when asked how to make SRE more effective in Mississippi, the most common response was training for all SRE instructors.

After gathering instructor responses to questions, a focus group was held which allowed many teachers to share experiences and struggles. The results of this focus group show that SRE instructors often felt a lack of support from administration and that the curriculum adopted by their school did not reflect the needs of the students. This supports previous research showing the need for ongoing in-service training and workplace support which allows instructors to take advantage of those development opportunities (Eisenberg et al, 2010). Many focus group participants expressed appreciation for the opportunity to participate and benefitted from hearing other SRE instructors share their experiences and struggles, reflecting the importance of professional development through networking and open discussion with other SRE instructors.

LIMITATIONS

This study was not solely focused on professional development and included questions related to many other aspects of the implementation of Mississippi's SRE law. This limited the depth of information that was available specifically regarding professional

development. And although this study had a very strong overall response rate, significant numbers did not answer the professional development questions. The survey also did not define "professional development" or differentiate between development that a teacher may have received in their own education (such as health educators) versus seminars and workshops post-degree as continuing education. While the study illustrates that the areas that teachers taught were correlated with the areas in which they received professional development, it does not establish causation. The study did not determine if the teachers emphasized certain areas and felt more comfortable with them because of professional development or if they sought out professional development in these areas because they were already the focus of the lessons.

IMPLICATIONS

Previous research suggests that effectiveness and comprehensiveness of SRE can be enhanced by proper professional development for SRE instructors. To maximize the effectiveness of Mississippi's SRE programs, proper time and resources should be allotted to instructor preparation as well as development opportunities; it is also important for administrators to support SRE instructors in their professional development. The findings of this study show that it would also be beneficial to offer more opportunities for SRE instructors to share experiences, lessons they have learned, and struggles they have had. and the likely negative psychological and physical effects of not abstaining.

Appendix A

All ten items from Mississippi Code 37-13-171 include:
1. The social, psychological and health gains to be realized by abstaining from sexual activity, and the likely negative psychological and physical effects of not abstaining.
2. The harmful consequences to the child, the child's parents and society that bearing children out of wedlock is likely to produce, including the health, education, financial and other difficulties the child and his or her parents are likely to face, as well as the inappropriateness of the social and economic burden placed on others.
3. That unwanted sexual advances are irresponsible and teaches how to reject sexual advances and how alcohol and drug use increases vulnerability to sexual advances.
4. That abstinence from sexual activity before marriage, and fidelity within marriage, is the only certain way to avoid out-of-wedlock pregnancy, sexually transmitted diseases and related health problems.
5. About condoms or contraceptives, but only if that discussion includes a factual presentation of the risks and failure rates of those contraceptives.
6. How condoms or other contraceptives are applied.
7. The current state law related to sexual conduct, including forcible rape, statutory rape, paternity establishment, child support and homosexual activity.
8. That a mutually faithful, monogamous relationship in the context of marriage is the only appropriate setting for sexual intercourse.
9. About other contraceptives, the nature, causes and effects of sexually transmitted diseases, or the prevention of sexually transmitted diseases, including HIV/AIDS, along with a factual presentation of the risks and failure rates.
10. Prohibition on instruction that abortion can be used to prevent the birth of a baby.

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Is There a Relationship Between Schools' Climate Ratings and Student Performance Data?

Tim Smith

Gary Shouppe

Abstract: This study uncovered an issue where most state departments of education in the United States do not track nor focus on professional development for school leaders on school climate. Despite this, a few states have made substantial efforts in bringing the importance of school climate into the assessment of schools conversation. Each public school in Georgia now has annual criteria to meet in relation to school climate due to this expanded view of what makes a successful school. The purpose of this study was to determine whether Georgia's School Climate Star Rating, or SCSR, had an effect on Criterion-Referenced Competency Test (CRCT) Reading and Math achievement. In addition, this study aimed to determine the effect of Title I/non-Title I status, SCSRs, and the interaction between the two on Reading and Math achievement. The study utilized the Path Analysis Model (PAM) and the Factorial Multivariate Analysis of Variance (MANOVA). As a follow up to the Factorial MANOVA, a test between-subjects was conducted on the Title I/non-Title I groups variable. The findings of this study underscored the importance of either beginning or continuing to develop a focus on the climate of schools. Student achievement is a critical aspect of what schools and educators are tasked to improve. However, the research evidence clearly shows a relationship between school climate and student achievement.

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INTRODUCTION

In today's educational environment, parents, educators, business people, and politicians have begun to direct more attention to the culture and climate of schools (Ga DOE, 2018). Fisher, Frey, and Pumpian (2012) assert school leaders therefore, must begin to focus more closely on their climates which augment the school's mission, vision, purpose, and student achievement. School leaders today must ponder whether their school is a welcome and inviting place, whether it is a place where people can feel comfortable and believe they are about to have an amazing experience (Fisher, Frey & Pumpian, 2012). Educators and researchers alike have come to a consensus the culture and climate of a school impacts, either positively or negatively, all stakeholders, including the students, faculty and staff, parents, and the community, as well as student achievement (Dieringer, 2011; MacNeil, Prater, & Busch, 2009).

The Wallace Foundation (2013), a group who has dedicated their time and efforts to improving public school leadership, has identified five key practices embodied in effective principals. One of these practices is developing a climate conducive to student achievement, a practice which requires placing learning at the center of everything which takes place in a school on a daily basis. Consequently, it is proposed that principals guiding schools with strong instructional climate ratings would outperform other principals in the

development of an atmosphere exuding trust and caring (The Wallace Foundation, 2013).

Due to the recent focus placed on the climates of schools by federal and state education departments, the purpose of this study is to determine the effect of school climate on students' academic performance in reading and math scores.

PREVIOUS RESEARCH

Gallup (2013) issued a report sharing the results of a poll they conducted in 2012 on the levels of engagement of American employees in the workplace. In organizations around the world, employees who are engaged in their work are the essence of organizational success. Organizations with higher levels of engagement display substantially superior levels of production, profitability and stakeholder approval. These organizations also experience less issues with employee retention, absenteeism, and workplace safety.

Kotter (1996) asserts climate is established when a group of stakeholders implement customary values and behaviors or norms of practice. Values are difficult to see; however, they are imbedded in the philosophies and actions of an organization. Behaviors are reinforced by the actions and expectations of leadership and peers. A strong climate will provide incentives for stakeholders who embrace these values and behaviors and will remove those who do not embrace them.

To attain a firm understanding of school climate, there needs to be an understanding of organizational health and how it is embedded and grounded in culture (MacNeil et al., 2009; Saufler, 2006; DuFour & Eaker, 1992). A good way to describe the difference between culture and climate is that culture is the structure encompassing a school's norms and values while climate is the behaviors within that structure (MacNeil et al., 2009). Although many use the terms school culture and school climate interchangeably (Watson & Hodges, 2014), they are two distinctively different things (Watson & Hodges, 2014; Kramer, Watson, & Hodges, 2013; Gruenert, 2008; Saufler, 2006). School culture, the most powerful influence on how students treat each other, differs because school climate is primarily about the faculty and staff and the overall school atmosphere created by them (Saufler, 2006). Watson and Hodges (2014) and Kramer, Watson, and Hodges (2013) believe school culture concentrates on common assumptions, meanings, and beliefs, while school climate concentrates on common perceptions of the school's stakeholders. To summarize what these writers are discussing, "Climate is the measure and culture is the change agent" (Watson & Hodges, p. 4).

School culture is organizational health with another added dimension which provides the specific connection to schools – student achievement (DuFour & Eaker, 1992). A school with a strong school culture will convey an unspoken, embedded controlling influence working behind the scenes organizing the daily endeavors of the stakeholders (Fisher et al., 2012; DuFour & Eaker, 1992). The NSCC, the Center for Social and Emotional Education (CSEE) and the Education Commission of the States (ECS) collaborated on a project in which they identified the challenges facing schools in regards to school climate (National School Climate Center et al., 2007). They found:

> . . . when students, in partnership with educators and parents, work to improve school climate they promote essential learning skills (e.g. creativity and innovation skills, critical thinking and problem solving skills, communication and collaborative skills) as well as life and career skills (e.g. flexibility and adaptability, initiative, social and cross culture skills, productivity and accountability, leadership and responsibility) that provide the foundation for 21st century learning. (p. 6)

They further assert school climate either stimulates or hinders academic achievement in students (NSCC et al., 2007; Marshall, 2004).

Harris Interactive (2012) conducted a poll and published the subsequent report about positive school culture and the performance of teachers. Surprisingly, or not so surprisingly, 53 percent of Americans possessing at most a high school degree are more prone to rate the satisfaction of students with their schools as very important. Additionally, 47 percent of this same group of Americans are more prone to identify parent satisfaction with a school as very important.

The report (Harris Interactive, 2012) also identified the recruitment and retention of good teachers as a crucial strategy for improving a school's culture. The strategy acknowledged as one of the most important and effective for accomplishing this endeavor is the removal of poorly performing teachers from the profession. Other strategies to improve school culture receiving strong support were tying teacher evaluations to student growth on standardized test results, improving professional learning opportunities, increasing overall workplace satisfaction, and increasing teacher compensation.

Marzano, Waters, and McNulty (2005) conducted a meta-analysis on what works in school leadership. Their research identified twenty-one responsibilities of school principals in regard to student achievement—the end goal. They are affirmation, change agent, contingent rewards, communication, culture, discipline, flexibility, focus, ideals/beliefs, input, intellectual stimulation, involvement in curriculum, instruction, and assessment, knowledge of curriculum, instruction, and assessment, monitoring/ evaluating, optimizer, order, outreach, relationships, resources, situational awareness, and visibility (Marzano, Waters, & McNulty, 2005, pp. 42-43).

The principalship is a crucial role in every school which must be filled by a person who causes transformation in the depths of teaching and learning in every classroom. Additionally, this person must also positively impact quality of life for all students. These things are done by developing and maintaining a school vision, distributing leadership to teacher leaders, being the lead learner within a learning community, implementing data driven decision making, and supervising classroom learning – specifically the curriculum and instruction (Stronge & Xu, 2008).

DuFour and Mattos (2013) sum it up this way: "The key to improved student learning is to ensure more good teaching in more classrooms more of the time" (p. 37). This is accomplished through a professional learning community (PLC). Schools which have welcomed PLCs accept responsibility for student learning as a collaborative team, elevate levels of student learning, experience stronger professional fulfillment, participate in ongoing crucial dialog, willingly share instructional practices, contribute in shared leadership, benefit from robust professional learning, and continue in the education field.

So what does all of this mean for schools facing today's challenges in educating children? A school lacking a positive school climate will have students who feel unsafe while at school; they will feel unwelcome in their classrooms; disrespect will be rampant. Learning opportunities will not be noticed let alone capitalized. Student maturation and growth will be restricted, and potential for academic and social gains will be nonexistent. Additional problems involve a negative trend in teacher retention, deficits in student performance and school safety as well as poor student attendance and discipline (Watson & Hodges, 2014).

METHODOLOGY

This study identified the relationship between the climate of a school, as defined by the Georgia School Climate Star Rating (SCSR) and student achievement data, specifically the Georgia Criterion Referenced Competency Test (CRCT) for the 3rd through 8th grades. It also aimed to examine the impact of Title I/ non-Title I status with respect to the SCSR groupings outlined in this study. The state SCSR utilized came from the 2013 – 2014 school year. The CRCT results this study used also came from the 2013 – 2014 school year and included results in Reading and Math. These bodies of data are one source the Georgia Department of Education (GADOE) uses to determine the quality of the public schools across the state. An analysis of these variables provided the statistics on which this study was constructed.

Sample

This study examined a total of n = 43 schools. In this total, there were elementary schools (n = 31) and middle schools (n = 12). The elementary schools serve students in kindergarten through grade 5. The middle schools serve students in grades 6 - 8.

During the 2013 – 2014 school year, students in grades 3 – 8 were administered the CRCT in the areas of Reading, Language Arts, Math, Science, and Social Studies. For the purposes of this study, only Reading and Math were utilized. Within each of these grade level groupings, there was a Reading group and a Math group. Approximately 7,000 to 8,000 students in grades 3 - 5 in the school district resulted in n = 6,474 Reading participants and n = 6,469 Math participants. Approximately 7,000 to 8,000 students in grades 6-8 resulted in n = 6,650 Reading participants and n = 6,554 Math participants. Table 3.1 contains the totals for each grade level and collective group; grades 3–5 and grades 6-8.

Additionally, schools were grouped as either Title I or non-Title I, depending on their federal status. The selected schools were separated into three different groups based on their state SCSR. The first group consisted of the schools that earned four or five stars; the second group contained the schools that earned three stars; and the third group had the schools that earned one or two stars. Schools were identified by a letter and number rather than their name.

Instrument

The SCSR for schools in Georgia was the first instrument utilized in this study. SCSR analyzes four main components which contribute to the overall school climate rating (Watson & Hodges, 2014; Kramer et al., 2013). The first component is School Climate which is derived from student, personnel, and parent survey responses.

The second component of school climate is Student Discipline. In this component, in-school and out-of-school suspension, alternative school assignment, and expulsion rates are analyzed. Higher scores indicate higher, more frequent discipline issues within a school (Watson & Hodges, 2014; Kramer et al., 2013). The third component is a Safe and Substance-Free Learning Environment. This component factors in the percentage of students who are not involved in incidents of violence (ex. bullying and/or threats and intimidation), alcohol, or drug related incidents.

The final component is School Attendance. The average daily attendance rate of all students, teachers, administrators, and staff is scrutinized. The only teachers, administrators, and staff who are not scrutinized are ones who have more than 45 days of absence which excludes them from this component (Tio, 2014; Watson & Hodges, 2014; Kramer et al., 2013).

CRCT Reading and Math

The second instrument used in this study was the Reading and Math portions of the CRCT. These state assessments were constructed to determine how well students have acquired the state mandated academic standards in Reading and Math for elementary and middle schools. This study looked at school performance reports for the mean score for each grade level for both of the chosen subject areas. The data was not disaggregated into the various subgroups or domains within each academic category. The CRCT assessments contain questions which require selected-response (GADOE, 2014).

Reliability and Validity

Reliability has been established for these assessments as reported by Chronbach's alpha. For the Reading assessments, the reliability coefficients ranged from 0.86 – 0.89 for grades 3 – 8. For the Math assessments, the reliability coefficients were 0.92 and 0.93 for the same grade levels; 3 – 8 (GADOE, 2009).
Despite this approach, at the time of this study there was not a Chronbach's alpha score or other reliability

measure established for the SCSR which creates a limitation for this study. The selected schools were separated into three different groups based on the SCSR for the Factorial MANOVA. The first group had the schools that earned four or five stars; the second group contained the schools that earned three stars; the third group consisted of the schools that earned one or two stars.

Procedure

The data used for this study—the state SCSRs and CRCT results—were not tied to individual students, just their schools. CRCT and SCSR data was obtained from the GADOE website (GADOE, 2014) and converted into a Microsoft Excel spreadsheet with the following categories as headers: n Tested, Mean Scale Score, Percentage Met or Exceeded the Standard. These headings were created for both Reading and Math. CRCT data about each school was obtained from the GADOE website into the spreadsheet for analysis. All the elementary and middle schools within the selected Southeastern United States school district who have 2013 – 2014 data were utilized in this study.
Data Analysis
The data was analyzed in this study was compiled from the GADOE website on Microsoft Excel spreadsheets, one for Title I/non-Title I classification and SCSRs and one for each grade level's CRCT results. Individual schools were assigned a code with a letter and number by the researcher to maintain the school's anonymity. Once compiled, the data was transmitted to SPSS 17.0 for data analysis purposes. The research questions were addressed using a PAM and Factorial MANOVA. Both the PAM and Factorial MANOVA used in this study utilized district and school level data. Additionally, for the purposes of this study, the achievement data used was the mean scale score for both Reading and Math.

Results

The first research question—"What effect does Georgia's SCSR have on students' Reading and Math achievement on the CRCT?"— was analyzed using the PAM. The results indicated 82% (R^2 = .819) of the variance in Reading is attributed to the SCSR which was statistically significant, univariate $F_{1,41}$ = 185.551, $p < .001$. In addition, the results indicated 26% (R^2 = .259) of the variance in Math is attributed to the SCSR which was also statistically significant, univariate $F_{1,41}$ = 14.337, $p < .001$. Both subject areas were significantly impacted by the SCSR; however, the impact on Reading was the most substantial.

The second question—"What effect does Title I or non-Title I status, the SCSR, and the interaction between the two have on Reading and Math achievement?"—was analyzed using the Factorial MANOVA. Initially, the difference in the SCSR groups across combined Reading and Math variables was analyzed. Next, the difference in the Title I/non-Title I groups across combined Reading and Math variables was investigated. Finally, the interaction between the SCSR groups and the Title I/non-Title I groups was examined.

The results showed some variance. First, the difference in the SCSR groups across combined Reading and Math variables was not significant, $\lambda = .805$, multivariate $F_{4,74} = 2.125$, $p = .086$. Next, the difference in the Title I/non-Title I groups across combined Reading and Math variables was significant, $\lambda = .683$, multivariate $F_{2,37} = 8.593$, $p = .001$. Finally, the interaction between the SCSR groups and the Title I/non-Title I groups was not significant, $\lambda = .883$, multivariate $F_{2,37} = 2.448$, $p = .1$.

Relationship between the findings and other research. In 2007, the National School Climate Center (NSCC), the Center for Social and Emotional Education (CSEE), and the Education Commission of the States (ECS) claimed school climate either stimulates or hinders academic achievement in students. School culture, and its resulting climate, is so important that school improvement is directly impacted by it. The reason for this is the impact of culture and climate on a school's student achievement (MacNeil et al., 2009). There is also a direct correlation between principal leadership and a school's culture and climate. So, indirectly, principal leadership impacts student achievement which impacts school improvement (MacNeil et al.). The Wallace Foundation (2013) asserts that schools with strong instructional climate ratings have principals who outperform other principals from schools with weaker instructional climate ratings. These assertions closely align with the statistically significant finding of the impact of the SCSR on Reading and Math achievement.

Additionally, the Center for Educational Policy Analysis (2003) identified the change in the type of student schools now are expected to educate. Students arrive with varying learning capacities, mental and physical disabilities, disproportionate family incomes, different cultural backgrounds, citizenship issues, or a combination of one or more of these challenges. This is a potential explanation to the statistically significant finding of the effect Title I/non-Title I status has on student achievement.

CONCLUSIONS

The results of the data analysis for the first research question indicated that school climate significantly impacts both Reading and Math achievement. However, the impact on Reading achievement was the most significant. This was underscored by the statistical results from the second research question. The implication here is that students growing up in homes with higher levels of poverty will have less access to a print rich environment, one which will provide a foundation of literacy prior to them attending their first day of school.

In this study, the larger percentage of Title I schools falling in group 2, and especially group 3, indicates a need for an increased focus on improving school climate in schools with higher levels of poverty. With the statistical significance that was found in this study, it is evident improving school climate must become a focus of states, districts, schools, and communities. The differences in the Reading and Math achievement of Title I and non-Title I schools clearly indicates there is a different set of student needs which should be examined through the lens of school climate.

Since the effect of school climate on student achievement has been found to be statistically significant by this study, there are four areas principals can focus their attention on in improving the climate of their schools: the external setting, relationships, safety, and teaching and learning (National School Climate Center, or NSCC, 2014). The development of a climate conducive to student learning is crucial. This requires placing learning at the center of everything done in a school (The Wallace Foundation, 2013).

Mendler (2012) identifies six practices which can help improve the climate of a school. First, genuine relationships must be established. Second, the connection of learning to real-life situations is critical. Third, the development of responsibility is a key factor in student, and school, success. Fourth, it is important to identify and celebrate success. Fifth, a safe environment for academic and social interactions must be provided. Finally, an enjoyable atmosphere in which students can connect in a tangible manner is a necessity.

The principalship is a crucial role in every school which must be filled by a person who causes transformation in the depths of teaching and learning in every classroom. Additionally, this person must also positively impact quality of life for all students. These things are done by developing and maintaining a school vision, distributing

leadership to teacher leaders, being the lead learner within a learning community, implementing data driven decision making, and supervising classroom learning – specifically the curriculum and instruction (Stronge, Richard, & Catano, 2008).

A school lacking a positive school climate will have students who feel unsafe while at school; they will feel unwelcome in their classrooms; disrespect will be rampant. Learning opportunities will not be noticed let alone capitalized. Student maturation and growth will be restricted, and potential for academic and social gains will be nonexistent. Additional problems involve a negative trend in teacher retention, deficits in student performance and school safety as well as poor student attendance and discipline (Watson & Hodges, 2014).

Since the body of research on school climate is currently growing, this is a timely research study. The results of this study are one more piece to add to an important educational and organizational topic. The statistically significant findings of this study indicate a need for educators to keep school climate at the forefront of their daily work if they are to achieve the academic and emotional growth they desire to see in each of their students.

The field of education is a difficult one, one which requires a huge commitment from those who enter it. The task is daunting, and it will not diminish. If anything, the challenges educators, students, and parents face are only going to continue to grow. It is not enough to focus on the academic side of things, although this is an important aspect of school climate. There must be a focus on the emotional climate of a school. Schools need to implement school-wide activities which will enhance and not detract from its climate. It will take a pointed and conscious effort from all stakeholders; however, it is an effort worth making.

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Effective Leadership in Education:
A Brief Analysis

Karin Graham

Abstract: The continual demands placed on educators and current education reforms require effective leadership. A successful school leader helps assuage those demands and works to build capacity in teachers and learners. Ineffective leaders tend to lose sight of the importance of relevant and noticeable staff development, shared leadership roles, the necessity of establishing a sense of trust with all shareholders, and the need for effective communication and visibility. Three key factors should be considered when establishing and sustaining a successful school, they include building a community of trust, developing teacher capacity through shared leadership, and providing open/honest communication. This theoretical framework will analyze the three key factors listed above through the lens of social learning theory. Administrators should draw upon the talent and skills of teachers in the building to utilize self-efficacy and mold it into collective efficacy.

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INTRODUCTION

In order to understand how to influence staff members and be an effective leader, social interactions should be examined because: "Cognitive factors influence what is observed, how that person or event is perceived, how this new information is organized for the future, whether the observational learning has a lasting effect, and what this effect is" (Miller, 2011, p. 242). Successful leadership relies on how stakeholders perceive a leader, in addition to a leader's own observations and how they use the observations to develop and establish an effective learning environment. Aspects of Bandura's social learning theory, specifically observational processes, and current research can be used as lenses to examine how leaders build relationships, trust, and capacity in a building. Research suggests that effective leadership should be studied because of its impact school improvements in teaching/learning. A leader should not lead on their own, rather, they should build upon self-efficacy in a building to establish a sense of collective efficacy, which in turn will present "...a group's shared belief in its ability, through collective action [professional development, collaboration, communication], to produce valued outcomes [improved learning and teaching]" (Miller, 2011, p. 246). This analysis attempts to answer the question: What are the key factors of effective leadership and how does social learning theory connect to those factors?

ANALYSIS

Effective leaders need to examine how they build and sustain relationships to promote positive, nurturing learning environments for teachers and students. Prior to building teacher capacity and sharing leadership, a leader should establish a sense of trust with their stakeholders, because, "...within the past 2 decades, studies of trust as a factor in school improvement have begun to illuminate the actions that leaders take which positively alter the culture in a school" (Wahlstrom & Louis, 2008, p.462). In order to prove his/her allegiance to a school community and its stakeholders, a leader must prove him/herself trustworthy. Leaders should be cognizant and observe/interact with teachers because "an appreciative inquiry approach can facilitate leadership development" (Byrne-Jimenez & Terry, 2012, p. 12). Getting to know teachers can aid in developing trust and building community. According to Wahlstrom & Louis's (2008) study, trust is one of the key factors of leadership, but through sharing power

(leadership) a leader gains other factors associated with effective leadership,"... leadership practices that share power are credited with creating greater motivation, increased trust and risk taking, and building a sense of community" (p. 467). Sharing power allows the teacher to have a voice in school decisions, which in turn, develops a sense of trust between the leadership and not only teachers in the building, but also all stakeholders. Odhiambo & Bower's (2012) prove this in their study, attesting that, "Stakeholders felt a principal could seal a school's effectiveness through the development of leadership practices which encourage trust" (p.13). If teachers observe a leader renouncing some of their power (taking a risk by trusting teachers), it is bound to result in a trust that paves the way for other aspects of effective leadership, for example, building teacher capacity and community. An effective leader employs self-efficacy of teachers when he/she provides them an opportunity to help make decisions that affect a school. Self-efficacy is a leader's building block to collective efficacy; if teachers are confident and able to help make decisions, it will most likely allow other teachers to observe the trust a leader has in teachers, and result in "...a group's shared belief in its ability" (Miller, 2011, p. 246). Trust is an effective leader's foundation for building teacher capacity and sharing leadership.

In order to build capacity in a building, successful administrators not only need to be trustworthy, they also need to be able to build relationships and communicate effectively. Why is it important to build capacity? Slater's (2008) research suggests that building capacity results in not only improving student learning, but also contributing to teacher growth, morale and retention, developing leadership skills and collaborative learning environments (p. 59). Building capacity and trust can be connected to Bandura's observational learning processes: attention, retention, production, and motivation (Miller, 2011, p. 241). One example that correlates to the theory is teacher growth; capacity can be gained by observing, retaining, and producing. Building capacity assumes that the leader has built relationships and a sense of community, because, "...knowing people is crucial in developing the trust and respect that characterize collaborative relationships'" (Slater, 2008, p. 61). If a leader expresses interest in knowing his/her staff, it is likely to result in a collaborative, trustworthy environment. Using the 2010 American Teacher Met Life survey, Sterrett and Irizarry (2015) identified and established specific factors involved in effective leadership, "Over two-thirds of teachers (67%) and more than three-quarters of principals (78%) think that greater collaboration among teachers and school leaders

would result in a major impact on improving student achievement" (p.9).   LeFevre and Robinson's (2015) study of interpersonal leadership challenges notes that, "Relational skills are required to build the trust needed to improve teaching and learning, whether that work involves engaging parents in new ways, integrating new instructional roles and responsibilities, challenging teacher culture, or addressing particular problems in teacher performance" (p. 61). It is important for effective leaders to build trust using the ability to relate to all stakeholders and address challenges. Communication is a key factor in establishing relationships, therefore, "... principals who build a positive climate for teachers through communication of a mission, shared decisions, supportive professional development, a sense of teacher community, and public relations with the broader community promote an environment in which teachers feel empowered and" (Urick & Bowers, 2014, p. 102). Successful leaders clearly communicate and create "... a supportive relationship between teachers and school leaders, which is characterized by providing a clear school vision, translating this vision to teachers, and setting directions for teachers by providing professional development, [which]contributes positively to the commitment of teachers to the school" (Hulpia, Devos, & Van Keer, 2011, p. 753). Communication and supportive relationships not only aid in effective leadership, but also teacher commitment. Valentine and Prater's (2011) definition of transformational leader can be applied to this study of an effective leader because they both "...spend a significant portion of their time working collaboratively with staff to solve key issues of school improvement...invest significantly in the development of individuals, particularly teacher leaders....build leadership capacity throughout the school and develop a culture of collaborative problem solving" (p. 23).

KEY TERMS
A Discussion

Key terms are important to the study because they highlight keys areas, ideas, aspects of social learning theory that contribute to the study and discussion of effective leadership. In this study, stakeholders can be defined as, those affected by effective leadership and includes parents, students, teachers, board members, etc; effective leaders should always be cognizant of the interests and needs of the stakeholders. Based on this study, trust, sharing leadership and communicating affects all stakeholders; effective leadership lends itself to establish a successful school.   Successful schools are important to parents, students, teachers,

and board members. Shared leadership, also referred to as distributed leadership, is an integral aspect of the study because it correlates to building relationships through trust and building teacher capacity. Shared leadership assumes that the leader is willing to give up or delegate power to others in the organization. Effective leaders "...that share power are credited with creating greater motivation, increased trust and risk taking, and building a sense of community and efficacy among its members" (Wahlstrom & Louis, 2008, p. 467). Self-efficacy and collective efficacy are terms taken from Bandura's social learning theory and can be used to connect motives and observations that influence effective leadership. Self-efficacy can be defined as one's "...competence in dealing with their environment and exercising influence over events that affect their lives" (Miller, 2011, p. 243). Collective efficacy is a "...group's shared belief in its ability, through collective action, to produce valued outcomes" (Miller, 2011, p. 246) and a result of one's understanding of his/her own self-efficacy in this study. In other words, if a teacher is aware of his/her leadership or teaching skills because the effective leader has built a relationship of trust and has observed the teacher's skills, it is likely to result in collective efficacy (shared leadership, increased teacher capacity). Trust assumes that a person is loyal, fair, and honest and in this study, developing trust intertwines with communication, relationships, and capacity. An effective leader should develop trust through communication and relationship building, which in turn results in building teacher capacity. Capacity is almost interchangeable with self-efficacy; in this study, it is a teacher's ability, knowledge, or background to teach and learn. An effective leader build's teacher capacity by "...tapping into the reservoir of 'underutilized talent within an organization' (Barth, 2003, p.62)" (Slater, 2008, p. 58). All of the terms discussed thus far are congruent; stakeholders are affected by effective leadership that shares power, promotes self and collective efficacy to increase capacity, builds trust and relationships through observation and communication.

Learning Theory: Connection

Observational learning and cognitive processes are integral to this study because they establish a theoretical lens to examine key characteristics of effective leadership. An effective leader should use his/her observations and findings to develop a successful learning and teaching environment. The abilities of an individual and a group are essential to building and can be connected to social learning theory, more specifically, self-efficacy and collective efficacy. An effective leader could use Bandura's observational learning process to

observe and promote self-efficacy/collective efficacy to establish a successful school. The process could include attention (observing teaching and learning); retention (reflecting/thinking about the observation); production (identifying/creating a plan); motivation (implementing the plan) (Miller, 2011, p. 241). The same process could apply to a teacher building on his/her teaching and learning abilities, which would also result in increasing the success of a school. Bandura's four properties of human agency are also important to a leader's own observational process. A leader should intentionally form a goal (intentionality), think about the future of that goal (forethought), and adjust their ideas to achieve the goal (self-reactiveness), reflect on the possible outcome (self-reflectiveness) (Miller, 2011, p. 246). Observation and reflection provide leaders valuable information to study/implement strategies and processes that could result in positive teacher/student relations, and build the capacity of learning/teaching in a school. The observational learning process is significant to the key factors of effective leadership discussed in this study. In order to promote a community of trust; develop teacher capacity through shared leadership; and provide open and honest communication, an effective leader should continually observe and process information to establish and sustain a successful learning/teaching community.

CONCLUSION

Based on research and findings, an effective leader can establish and sustain a successful school if they build a community of trust, develop teacher capacity through shared leadership, and provide open and honest communication. It should be noted that an ineffective leader could be the result of an administrator: who is more concerned with tasks that divert them from observing teachers/learners; who lacks knowledge of content and effective teaching skills; who is unable to relate to teachers in order to help them improve their practice (Lefvre & Robinson, 2015, pp. 59-60). The importance of observation and gathering information only strengthens a leader's ability to (continually) build trust and capacity in a building. If a leader trusts his teachers and observes self-efficacy, it allows him/her to build a sense of collective efficacy. Sharing leadership allows trust, open/honest communication, and capacity building to continually grow. Although, "...giving up control over key decisions becomes an increasingly high-stakes stance when the bottom line for accountability rests with the principal" (Wahlstrom & Louis, 2008, p. 461), it is important for leaders to trust teachers. According to research for this study, an effective leader should avoid remaining behind a desk and instead,

develop trust and communicate openly/honestly with stakeholders, build capacity through relationships and shared leadership. If leaders were to employ key factors discussed in this study, it would most likely result in a successful learning/teaching environment. The research and study of effective leadership in schools is important because school leaders should "...have the knowledge, skills, and dispositions to provide leadership as well as the respect of the school staff. If this does not occur, schools will have great difficulty meeting the complex demands of high-stakes accountability mandates and serving the needs of all students" (Hoppey & McKleskey, 2013, p. 254).

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The Relationship of Emotional Intelligence to Academic Achievement

Donna M. Rice

Abstract: Higher levels of emotional intelligence built through electives like Army JROTC are predictive of higher levels of academic achievement. This quantitative correlational study was conducted to explore the relationship of the grade point averages of a random sample of 486 Army Junior Reserve Officers' Training Corps high school cadets to levels of emotional intelligence as measured by The Personal Skills Map®. Research findings were that 10 of 11 emotional intelligence skills were significantly correlated with higher grade point averages. Dewey's pragmatism and Plato's idealism, which support the premise of the need for programs that help students interact with their environment and bring out their best, served as the theoretical framework for the study. Implications for education are that elective programs that support personal growth and learning life skills are as important as academic skills.

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INTRODUCTION

Despite laws designed to improve the quality of education such as the No Child Left Behind (NCLB) Act of 2001 and the Every Student Succeeds Act (ESSA) of 2015, academic achievement remains elusive. Though most would agree covering content will not solve the problem, they do not agree on what will. Whereas some administrators require advanced and remedial classes at the expense of electives, others believe that electives, like the Junior Reserve Officers' Training Corps (JROTC), keep students in school, and these administrators are less inclined to remove opportunities for students to be involved in them (Blake, 2016). Despite research that indicates a positive climate contributes to academic achievement (Berkowitz, Moore, Astor, Benbenishty, & Benbenishty, 2017), the pressure caused by high-stakes testing makes scheduling decisions difficult for administrators. Paradoxically, raising requirements at the national and state level in core subjects (Tampio, 2017) and eliminating classes that support the prosocial aspects of student development can reduce the effectiveness of education (Corrigan, Higgins-D'Alessandro, & Brown, 2013). Schools should be places where teachers help students develop not only academically but also as humans (Tomlinson, 2015). In this study, the relationship between emotional intelligence (EQ) with academic achievement is examined. Emotional intelligence encompasses personal and human development built through prosocial activities, such as teamwork, in JROTC.

Since the study occurs within the context of Army JROTC, it is important to provide information to better understand the program. Established by the National Defense Act of 1916, JROTC was designed to teach high school students the value of citizenship, responsibility, a sense of accomplishment, and service to the United States (Junior Reserve Officers' Training Corps Act of 1964, 2008) while instilling in them decision-making skills that promote their social, emotional, and physical health ("U.S. Army JROTC," 2018). The mission statement, To Motivate Young People to be Better Citizens, reflects the program's post-graduate focus. Approximately 314,000 Army JROTC cadets and over 4,000 instructors work and learn together in over 1700 schools. When adding other service JROTC units, those numbers nearly double. Many JROTC units are located in high schools in inner cities and rural areas where students are underserved (Perma & Mehay, 2009), and a large number are unmotivated to learn when they first join. According to annual surveys, grades, and test scores; however, JROTC cadets excel academically when compared to other students in the high school ("U.S.

Army JROTC," 2018). A majority of cadets learn how to be successful not only in improving their emotional competence, but also in academic achievement largely due to the program structure, the experience and character of the instructors, and a state-of-the-art 21st-century curriculum. The curriculum content is rich in life skills, leadership, physical well-being, and the rights and responsibilities of citizenship. Many cadets report they perform better in their academic classes, not only as a result of the motivation and inspiration they experience from their participation in JROTC, but also because course materials augment and reinforce their academic subjects.

THEORETICAL FRAMEWORK: RESEARCH QUESTION

Public education is in crisis today. School administrators may be mistakenly trying to increase achievement by requiring academic courses at the expense of elective programs when well-chosen electives might serve to meet the objective even better. With states scrambling to meet or exceed legal requirements, an unprecedented emphasis has been placed on test scores as proof that all students are achieving. In many locations, school courses that do not readily appear to contribute to academic achievement are being squeezed out in favor of time spent preparing for tests. School schedules are full of courses necessary to meet graduation requirements and of remedial classes for those who do not pass the courses. Despite the decades of increasing emphasis on test scores; however, the United States has made little progress in academic achievement (Corrigan, 2012). Adding to the problem of what must be taught, students who want to attend good universities are finding their grade point averages will not be competitive unless they take a full slate of honors or advanced placement courses (which confer grade point averages beyond 4.0). A number of these students who want leadership experience cannot take regular classes, much less electives, because they need honors or advance placement credit to be competitive. Thus, they miss a good opportunity to develop the life skills that will help them navigate through their relationships, college, a career, and life in general.

Meanwhile, many elective courses motivate students to stay in school either through offering a specialty or an outlet. Ironically, the students not motivated to achieve in school are often those who cannot take electives because they must take remedial classes. Meaningful data that link EQ to achievement may help to inform decision makers to keep elective programs that build

soft skills in the school schedule. Students who excel academically are often shortchanged by an educational system that, through its infatuation with academics, has not provided the subjects many of these students need to become happy, productive citizens.

To better assess this linkage, this study focused on exploring the relationship between levels of EQ and levels of achievement. Specifically, the question addressed in this research was as follows: Is there a relationship between emotional intelligence and academic achievement in JROTC? The theoretical framework of Dewey's pragmatism (students need to interact with their environment to learn; Heilig, Cole, & Aguilar, 2010) and Plato's idealism (that the aim of education is to bring out the best in students to better serve society; Joyal, 2016) supported this question. The theory explored in relation to EQ remains elusive as major theorists in the field do not agree. This lack of clarity has contributed to the difficulty in understanding how EQ relates to educational achievement (Perera, 2016).

SIGNIFICANCE OF THE PROBLEM

Continued research on the importance of educating the whole child could help to convince school officials that electives are important (Davila, 2014), and that a fight to save them now will be easier than trying to reinstate them once they are gone. Substituting credit for the subjects and activities in JROTC (e.g. health, wellness, physical fitness) allows more options for students to enroll. Either way, action as opposed to apathy is imperative if these types of elective courses are to survive. Administrators need ammunition to reverse the trend toward eliminating electives and to amend unwieldy policies that severely restrict them. Marzano (2003), Caine and Caine (1991), Goleman (1995), Gardner (1993), Bar-On (1997), Mayer and Salovey (1990), and many other prominent researchers have created a foundation that supports varied instructional strategies, tying learning to emotion, and the importance of EQ. What remains is for others to build on the foundation and make the case for electives and teaching strategies that need to be included, not excluded, in the quest for higher achievement.

Army JROTC has an organizational structure that promotes leadership and citizenship, requires and evaluates service learning, teaches embedded subjects that focus on building character and increasing emotional intelligence, and employs proven instructional strategies. In following a Vietnamese refugee's experiences in

JROTC, Davila (2014) suggested that attendance in JROTC can provide a sense of belonging and hope for the future that keeps even low-achieving students in school. Yet students, often those who need it the most, cannot always fit JROTC in their schedule. Other programs, such as Future Farmers of America (FFA), Distributive Education Clubs of America (DECA), Family, Career, and Community Leaders of America (FCCLA), Future Business Leaders of America (FBLA), and Junior Achievement (JA), that also offer opportunities for skill, character, and leadership development (Rice, 2011) also take a back seat to core academics. These programs help students learn about themselves and, therefore, provide avenues to understand their skill levels. Logically, once students understand their strengths and weaknesses, they can learn to use their strengths while they build weaker skills, thus improving their chances for success (Neilson, 2005). Another benefit of JROTC (and programs like it) is it offers students an opportunity for local, and sometimes national recognition—as Charlie Daniels commented, for what is good about America (Perez, 2015).

METHODOLOGY

In 1976 Nelson and Low (2003) created the instrument used to measure EQ, the Personal Skills Map®, which was later digitized and embedded in Conover Company's Success Profiler® (Schmitz, 2005). To explore relationships between EQ and academic achievement in this quantitative study, scores on 11 personal skills (the predictor variables) were correlated with corresponding grade point averages (the criterion variables). The existing data included scores, grades, and demographics from a sample of 486 cadets in grades 9-12 located in different schools with diverse populations across the country. Demographics were: 21% Caucasian, 24% African American, 26% Hispanic, 16% Native American, 5% Alaskan, and 8% Asian. Approximately 48% of the cadets were male and 52% female. Data collected were displayed on graphs generated by SPSS software. Bivariate correlation statistics were used to compare the predictor variables with the criterion variables (Mirabella, 2006).

RESULTS

In addition to displaying descriptive statistics, Table 1 illustrates that the test distributions were normal.

For the research question: Was there a relationship between emotional intelligence and academic achievement in JROTC, the null hypothesis was rejected on 10 of the 11 EQ scales. To investigate the first hypothesis, a correlation analysis was administered using SPSS software on each scale. Table 2 illustrates the results of the Pearson Correlation. In order to sufficiently address this question, each of the eleven scales must be analyzed as separate sub-hypotheses.

Table 1: *Descriptive Statistics, Significance, and Test Normality*

Variable	Mean	Stand Dev	Min	Max	Ass/2 tail	Test Distribution
GPA	2.8	.765	.50	4.30	.08	Normal
Commi Ethic	16.3	4.7	2	24	.001	Normal
Drive Strength	29.0	9	2	47	.092	Normal
Decision Mak	12.2	3.7	1	20	.005	Normal
Empathy	17.3	5.2	2	24	.000	Normal
Awareness	16.4	4.7	1	24	.002	Normal
Physical Well	22.5	7.3	2	40	.001	Normal
Sales Orient	14.9	4.7	1	24	.003	Normal
Self Esteem	54.5	16.9	6	87	.000	Normal
Stress Mgt	24.5	9.8	1	48	.035	Normal
Time Mgt	13.9	4.7	1	24	.001	Normal
Assertion	23.8	6.7	1	36	.082	Normal
Aggression	13.0	7.4	1	36	.000	Normal
Deference	15.7	7.3	1	36	.032	Normal

Table 2:_Pearson Correlation for Emotional Intelligence Variables and GPA_

Variables
Academic Achievement (GPA)
Cadets (n = 486)

EQ Variables	r	sig (2 tail)
Commitment Ethic	.234**	.000
Drive Strength	.219**	.000
Decision Making	.128**	.005
Empathy	.126**	.005
Awareness	.070	.125
Physical Wellness	.109*	.016
Sales Orientation	.147**	.001
Self Esteem	.172**	.000
Stress Management	.132**	.004
Time Management	.196**	.000
Assertion	.131**	.004
Aggression	-.144**	.001
Deference	-.048	.292

* $p < .05$; **$p < .01$

A narrative of the results are as follows:

- Commitment Ethic (CE), is the ability to successfully complete projects and job assignments. With a p-value of .000 which is less than .05, the null hypothesis is rejected; thus, I concluded that a correlation exists between commitment ethic and grade point average. Since the R for CE is .234, as commitment ethic increases, academic achievement increases as well.
- Drive Strength (DE), is the ability to effectively direct individual energy, motivation, and achievement. With a p-value of .000 which is less than .05, the null hypothesis is rejected; thus, I concluded that a correlation exists between drive strength and grade point average. Since the R for DE is .219, as drive strength increases, academic achievement increases as well.
- Decision Making (DM) is the ability to initiate, formulate, and implement effective problem-solving procedures. With a p-value of .005 which is less than .05, the null hypothesis is rejected; thus, I concluded that a correlation exists between decision making and grade point average. Since the R for DM is .128, as drive strength increases, academic achievement increases as well.

- Empathy (E) is the ability to accurately understand and accept another person's thoughts, feelings, and behaviors. With a p-value of .005 which is less than .05, the null hypothesis is rejected; thus, I concluded that a correlation exists between empathy and grade point average. Since the R for E is .128, as empathy increases, academic achievement increases as well.
- Interpersonal Awareness (IAw) is a personal skill in the ability to judge appropriate social and physical distance in verbal and non-verbal interactions with others. With a p-value of .125 which is greater than .05, the null hypothesis is accepted; thus, I concluded that a significant correlation does not exist between interpersonal awareness and grade point average. Since the R for IAw is only .070, academic achievement may not increase as interpersonal awareness increases.
- Physical Wellness (PW) is a personal skill in the ability to take care of one's physical self and avoid self-destructive behaviors. With a p-value of .016 which is less than .05, the null hypothesis is rejected; thus, I concluded that a correlation exists between physical wellness and grade point average. Since the R for PW is .109, as physical wellness increases, academic achievement increases as well.
- Sales Orientation/Leadership (SO), or leadership, is the ability to positively impact and influence others. With a p-value of .001 which is less than .05, the null hypothesis is rejected; thus, I concluded that a correlation exists between sales orientation and grade point average. Since the R for SO is .147, as sales orientation increases, academic achievement increases as well.
- Self-Esteem (SE) is a personal skill in the ability to accurately evaluate self or a self-perceived level of personal worth. With a p-value of .000 which is less than .05, the null hypothesis is rejected; thus, I concluded that a correlation exists between self-esteem and grade point average. Since the R for SE is .172, as self-esteem increases, academic achievement increases as well.
- Stress Management (SM) is a personal skill in the ability to positively manage stress and anxiety. With a p-value of .004 which is less than .05, the null hypothesis is rejected; thus, I concluded that a correlation exists between stress management and grade point average. Since the R for SM is .128, as stress management increases, academic achievement increases as well.
- Time Management (TM) is a personal skill in the ability to use time effectively for the accomplishment of individual and career goals. With a p-value of .000 which is less than .05, the null hypothesis is rejected; thus, I concluded that a correlation exists

between time management and grade point average. Since the R for TM is .196, as time management increases, academic achievement increases as well.

• Interpersonal Assertion (IA) is a personal communication skill indicated by the direct, honest, and appropriate expression of thoughts, feelings, and behaviors. It is a balance between Deference (ID) and Aggression (IAg). With a p-value of .004 which is less than .05, the null hypothesis is rejected; thus, I concluded that a correlation exists between interpersonal assertion and grade point average. Since the R for IA is .131, as assertion increases, academic achievement increases as well.

Though no hypotheses were tendered for IA subscales, the relationships were explored: ID is a personal communication style which is indirect, self-inhibiting, self-denying, and ineffectual for the accurate expression of thoughts, feelings, and behaviors; IAg is a personal communication style that violates, overpowers, dominates, or discredits the other person's rights, thoughts, feelings, or behaviors. With a p-value of .292 which is more than .05 and an R of -.48, deference is not significantly correlated with academic achievement. With a p-value of .001; however, which is less than .05, a correlation does exist between aggression and grade point average. With an R of -.144, as aggression increases, academic achievement decreases. Of the 11 scales, only Interpersonal Awareness was not significantly correlated. Since this scale has been found to be significantly correlated in other studies (Pope, 1981), perhaps further research with different samples is in order.

CONCLUSIONS AND IMPLICATIONS

The results of this study help to validate the importance of developing the whole person to increase academic achievement through elective courses. School leaders could add this study to the growing body of research with similar findings to support a focus on building personal skills, understanding learning styles, and allowing opportunities for as many students as possible to participate in prosocial experiences. Assessments like the Personal Skills Map® help students to be aware of strengths and weaknesses that could help them to make changes resulting in higher grades. Many elective programs take that awareness further by helping students to improve their EQ.

The stated goals of schools today should not only be to help students achieve academically, but also to understand and manage their emotions and become productive, well-adjusted citizens. Though academic achievement is often the stated goal, it is not attained by merely teaching required subjects. Theorists including Robert Sternberg, Howard Gardner, and Daniel Goleman (Hein, 2004) challenge the traditional concepts of intelligence and how it is measured. According to them, IQ is but one element among many that determines success. Some of the factors that contribute to achievement in their view include classroom environment, affective learning, cooperative learning, student engagement, and service-learning. Obviously, some students will achieve regardless of the classroom environment or instructional strategies used. If the goal is to reach every child, however, these researchers suggest additional methods be considered. The business world has realized for years that many other skills such as leadership, critical thinking, problem solving, decision making, commitment, communication skills, and stress management are desirable in employees. Developing emotional competence to fulfill future roles as productive citizens should be a priority (Kessler, 2000).

IMPLICATIONS FOR FURTHER STUDY

Further research should include links of service learning, leadership, and locus of control to emotional intelligence in
secondary schools. Efforts to achieve consensus in the emotional intelligence community should be monitored and included in that research. Future studies
confirming or disputing these results are important to policy makers who mandate education requirements including how schools are resourced based on test scores and to education administrators charged with making scheduling decisions. Further research exploring emotional barriers to academic achievement could help with those policy and scheduling decisions. Additional studies with like results will add to this evidence that character development and leadership programs like JROTC build emotional intelligence and result in higher achievement.

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The Benefits of Reflection
on Improving Teaching Through Change:
A Reflective Model for Professional Development

Rachel Wlodarsky

Abstract: This paper takes a closer look at the implications of reflection on improving teaching through change, specifically for college faculty. In this research study, I explored reflective practices where teacher education faculty defined reflection and discussed processes, which they used to facilitate reflection on their own professional development. A qualitative coding strategy was used, then an analytic concept mapping procedure described by Novak and Gowen (1984) was employed. Findings include an unmistakable pattern of change that derived from identification and correction of deficiencies in practice. Second, reflection is in fact a process of discovery of strengths and successes, to confirm and plan for continuation in that same path. In summary, as demonstrated in the event path at the core of this study, is a process that can lead to change and ultimately improved teaching practices.

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Keywords: Teacher Educators, Reflection, Change, Professional Development, Learning

INTRODUCTION

Kouzes and Posner (2007) argue, there are no shortages of challenging opportunities for organizations and the people that work within them. In these extraordinary times, the challenges seem only to be increasing in number and complexity. They stated, "the abundance of challenges is not the issue. It's how we respond to them that matters. Through our responses to challenges, we all have the potential to seriously worsen or profoundly improve the world in which we live and work" (p. xi). At the core of this discussion of challenge and opportunity, threats and circumstances, is the issue of change. In higher education, the issue of change relates to a number of key stakeholders, one of which is faculty members.

In this research study, I explored the process of reflection, where I observed a consistent focus on change, unsolicited, across all experience levels of professors who chose to participate. For novice and expert alike, the most common descriptions of reflection on practice linked past experiences with the information captured in journals, evaluations, student comments, and peer reviews, to a conscious decision to do something different: to change. A few professors within our teacher education program made the conscious choice not to change. In summary, this paper takes a closer look at the implications of reflection on change in the context of higher education, specifically college faculty.

REFLECTION AND CHANGE

The literature on reflection is vast; too much to capture within this paper, therefore, I will focus my efforts on reflection and its association with change. Meryl Thompson (2010) suggested that reflection and reflexive practice are a close examination of one's own thoughts and behaviors, leading to learning from experience and an experimental disposition toward outgoing activity. This outgoing activity could be perceived as a change in behavior. According to Nguyen, Fernandez, Karsenti and Charlin (2014), although reflection has been viewed as a thinking process, it does not mean that reflecting and thinking are synonyms; it includes further elements such as "thoughts and actions; attentive, critical, exploratory and iterative processes; an underlying conceptual frame; a view on change; and self" (p. 1180). Observing reflection in the context of education,

Kahn, Young, Grace, Pilkington, Rush, Tomkinson and Willis (2008) were interested in the instrumental uses of reflective practice: was reflection in any of its various definitions treated in the literature as causal of professional development, individually or with education cohorts of practitioners? And if or when reflective practice was viewed as an essential tool to create change in individual educators or in groups of educators, was their evidence that this change, in fact, occurred? Kahn et al. (2008) came to a rather stark, but not necessarily unanticipated conclusion with respect to the outcomes of grand-scale education efforts:

> Terms such as "reflection" or "reflective practice" were, however, only rarely unpacked within the documentation. While exploration of their meaning might well occur during a program, it was clear in the documentation that the ability to engage in a reflective process was not simply an end in itself. Other intended outcomes flowing from the application of reflective processes included the ability to innovate, the willingness to take risks, a framework for career-long development and so on. A direct link was made in each educational program between reflective processes and professional development, with the use of reflection to support self-improvement and adaptation of practice prevalent to varying extents. This was typically set within a context of change within higher education. (p. 170)

In short, the literature surrounding reflective practice was packed with outcomes expectations: education systems adopt the language and "practices" instrumentally. Education institutions and programs encourage, require, or use reflective processes instrumentally to cause change in individuals and among cohorts of practitioners. Yet, as Kahn et al. (2008) and others observed, actual performance data have been, in many cases, ambiguous or inconclusive as to whether this change really takes place (Clegg, Tan, & Saeidi, 2002; Lyons, 2006). Nevertheless, I would agree that the degree or reality of change is highly variable within cohorts of education professionals and even for individuals in problematized contexts. With this increased attention on change comes a responsibility to better understand the role reflection can play in enabling and operationalizing change.

Pioneers like Kurt Lewin, Everett Rogers and Ronald Lippitt have worked for decades trying to better understand change. Lewin categorized change into three stages in which individuals/organizations must proceed before change becomes part of a system. These stages include unfreezing, when change is needed; moving, when change is initiated; and finally refreezing, when equilibrium is established (as cited in Mitchell, 2013, p. 32). Unfreezing consists of examining the status quo and can increase the driving forces for change. Moving requires involving people to take action ultimately making changes and refreezing makes the change permanent. It is establishing a new way of things and rewarding desired outcomes. In other words, "change agents are motivated to change, affected members of staff are made aware of the need for change, the problem is identified and through collaboration, the best solution is selected" (Michell, 2013, p. 33). Roussel (2006) believed that when disequilibrium occurs within a system, it creates a need for change; this is Lewin's unfreezing stage.

Rogers (2003) expanded on Lewin's work by introducing five phases of planned change which include: awareness, interest, evaluation, trial and adoption. The awareness phase is comparable to the unfreezing stage. The interest, evaluation and trial phases are when change agents gather all available information and solve any problems, develop detailed plan(s) of change and test the innovation. The adoption phase signifies the point at which change has been successfully integrated in the system and strategies are developed to prevent a return of previous practices.

One of the seminal texts on change in many people's estimations is Rogers' (2003) *Diffusion of Innovations*. Rogers defined diffusion as, one part of a larger process which begins with a perceived problem or need, through research and development on a possible solution, the decision by a change agency that this innovation should be diffused, and then its diffusion. (p. xvi)

Lippitt's change theory consists of seven phases, beginning with diagnosing the problem, assessing motivation and capacity to change and the change agent's motivation and resources. If the motivation, capacity and resources are evident, a selection of progressive change objectives occurs along with choosing an appropriate role for the change agent. Finally, the change must be maintained and termination of the helping relationship occurs (Mitchell, 2013, p. 33).

According to Wright (1998), change is vital to progress, however there are numerous complexities associated with transforming plans into actions and attempts to change often fail because change agents take an unstructured approach to implementation. Wright argues for the importance of identifying an appropriate

change theory or model to provide framework for implementing, managing and evaluating change. For many researchers, including myself, the interest lies in what conditions optimize the possibility that change actually occurs.

The link between reflection and change is not new; the relationship between the two concepts is marked in the literature. For novice and expert alike, the most common descriptions of reflection on practice linked past experiences with a conscious decision to do something different: to change. Wright (2009) approached the construct of reflection on practice through Schön's (1987, 1983) work, but added an interesting and unique contribution to the change discussion: the idea of reflexivity. Wright's study was the result of a professional development experience she engaged with while serving as a school principal. *The Reflections on Practice: Institute for School Leaders* program "emphasized personal, collaborative and professional reflection by critically examining theory, questioning assumptions and practices, and conducting action research and participating in onsite/online workshops" (p. 262). As a part of this workshop experience, she and other participants were required to maintain participation journals. Wright's journal ultimately became the data for this critical and reflective essay on how principal's effect change in their environments through the use of reflective practices.

For Wright, she returned to Schön's "reflection as decision-making in a swamp" of difficult and overwhelming choices, and to Wilson's (2008) use of reflection-on-the-future as "imagining or reflecting on what might be possible…to develop operational strategies which hopefully will deliver concrete reality" (p. 179). Importantly, Wright formed a conclusion that foregrounds *change:*

> I came to understand that if individual change is to be a precursor to collective change, reflection should involve the interruption of taken-for-granted behavioral patterns and unexamined assumptions that perpetuate the status quo. When long-standing norms are interrupted, practitioners engage in second-order change that has potential for transformational or behavioral change… consequently, the practitioner's identity is fluid and evolves. (p. 263)

Another view of the relationship between reflection and change is provided in an evaluation study of Gregoire's (2003) *Cognitive-Affective Conceptual Change*

(CAMCC) model for professional development (Ebert & Crippen, 2010). The CAMCC approach to professional development was formed around the professional development activities of a set of mathematics teachers, and evolved into a discussion of conceptual change, which was outlined in flow-chart form (Gregoire, 2003). This theoretical model emphasized an initial cognitive experience by the participants, termed "presentation of the reform message." This message was essentially an advanced organizer for the teacher, that confronted the teacher about practice-level behaviors, beliefs, or assumptions regarding their work with students in the classroom prior to the professional development sequence. This advanced messaging could then either be accepted or rejected by the participant. Gregoire found that individuals who accepted an "implication of self" in that message, essentially agreeing with the message, evidenced a greater degree of conceptual and practice change over time.

Ebert and Crippen (2010) replicated the CAMCC model using science teachers to test the practicality and cross-validity of the model with science teachers. This 2010 study found that the model was successful following the same line of reasoning as the original 2003 study. Critical for the discussion here, Ebert and Crippen (2010) explicitly identified time to reflect or to engage in a process of reflection as at the heart of successful professional development programs: "Having the opportunity to collaborate, reflect, and receive meaningful feedback from colleagues, and learning to use research-based instruments for reflection, enables teachers to confront deeply held personal beliefs about their practices" (p. 373).

This paper introduces a reflective model of change that emerged from the data provided by teacher education faculty. Although the model is introduced in its entirely, the purpose of this paper is to give greater attention to the Change Point component in this reflective process.

THE STUDY
Research Questions

The research study was developed to consider the influence of reflection as an element in bridging decision-making and change in professional contexts. The research questions answered using the data were as follows: what does the reflective process look like? Were there similarities among the individual respondents with respect to their specific processes? Lastly, how might this practice relate to the professional development and personal growth for professionals?

Participants and Data Collection

A convenience sample was recruited comprised of 17 professors within a college of education at a private, liberal arts university in the Midwest. Located in Ohio, this institution of higher education is guided by Christian heritage, holding core values such as individuality, character development, and excellence in teaching. The participants varied, ranging from tenure-track to tenured faculty who teach undergraduate and graduate courses, focusing on educational foundations, curriculum and instruction, and specific content areas, to teacher candidates. This college implements a reflection-based model of annual faculty review and professional development for tenure-track as well as tenured faculty. The faculty who volunteered comprised approximately 33% of the total college faculty at the time of the study. All volunteers signed informed consent statements that explained the study and the intended use of their responses.

The sample included individuals who selected to participate at an anonymous level—completing the survey only. Respondents defined reflection and discussed cognitive processes that facilitated reflection on their own professional development. The specific survey item read as follows:

> *Write out a brief definition of reflection and describe how this practice might relate to your professional development as a faculty member. As part of your definition, describe the tools you use to facilitate your reflection(s). Examples of tools include but are not limited to: portfolios, journal writing, student comments, peer feedback, course artifacts, discussions, inquiry questions, and video/audio-taping. Please indicate any other tools you have used to facilitate your reflection(s).*

Those participants who chose to participate by submitting reflective narrative documents did so confidentially, as all identifiable information was excluded from reporting. Sampling bias was controlled in part through the use of archival documents (narratives) which were developed prior to the study announcement. Some individuals also selected to participate at a wider level and provided contact information to the researcher to participate in interviews following initial summary of the surveys. Data and project reports were edited to ensure confidentiality of participants.

Data Analysis

A constant comparative procedure, which is a qualitative coding strategy, was used to examine the process(es) described in the responses to the item above. Initial themes and categories among the narrative responses were established as a first step in enhancing the credibility of the project. The themes which emerged have been observed in related literature as cited throughout this paper, providing additional confirmatory support for the reliability and credibility.

An analytic concept mapping procedure described by Novak (1998) and Novak and Gowen (1984) was used to organize the narrative. This procedure allowed the researcher to organize and to label participant responses. The coding strategy, following Novak (1998), treated words and phrases (grammatical units) as discrete conceptual units of equal weight. Based on a logical-rational use of vocabulary definitions, these conceptual units were then clustered to establish themes. These themes were then cross-walked to the literature cited previously to establish the reasonableness of the themes and to control or constrain researcher bias. The researcher employed a colleague with expertise in data coding to assist in the analysis process. The researcher/author and this colleague/coder coded the first participant's survey responses together to standardize the coding process. Following agreement on the process to be used, two additional participant responses were coded, and compared to monitor agreement on the process and consistency of coding. Finally, the remaining responses were coded, creating a total of 17 concept maps. Analyses, as well as findings, were constructed and edited to protect the individual privacy of the participants.

FINDINGS

14 of the 17 concept maps were developed from participant responses have strong similarities. This implies that a preponderance of participants use the same reflective process to consider their own professional activities. The meta-map depicts the typical path followed by the respondents (Figure 1 below) and is consistent with the 14 maps developed around the respondents' narratives. For 3 of the 17 respondents, there was not a clear indication that a behavior change (new event) was implemented.

The typical path followed by the participants indicated a precipitating Event, followed by an intentional period of Cognitive processing of information. The Cognition

Figure 1. *Event path for professional reflection*
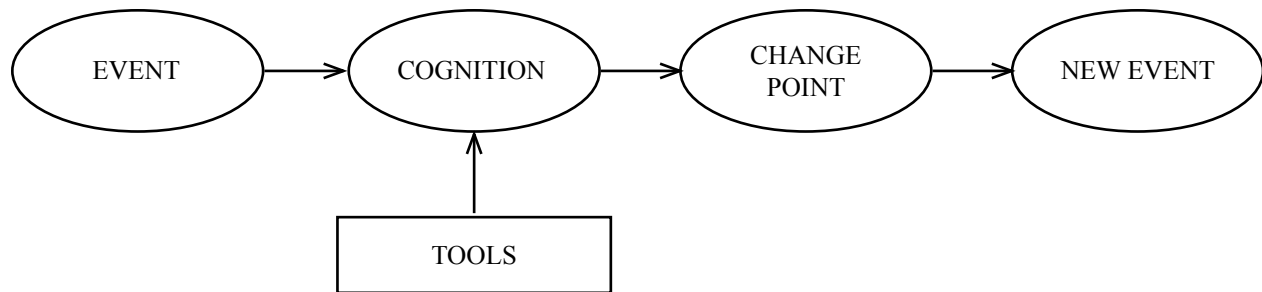
component served as the point in which some problem was formulated. The information processed during this cognitive period was derived from Tools, which is a form of data collection by the respondents. Common types of tools used by these respondents varied from individual to individual; including but not limited to journaling, input from peers through direct observation, input from peers when the event is identified by the individual requesting feedback, and student input. For 14 of the respondents with strong similarities mentioned above, these phenomena are followed by a Change Point, where a decision or judgment is made about future behavior. The New Event terminology is limited to the occurrence of an actual change in behavior.

Change Component of the Event Path

It is believed that this model is a simplified approach for analyzing the professional reflections of college faculty members, and that the terminology supplied by the respondents in the survey narrative can be viewed as indicators of individual cognitive, epistemological, developmental, and reflective levels or stages. Furthermore, it was clear from the response language that affective elements such as satisfaction, and confidence or the lack thereof, were threaded through and not distinguishable from these other dimensions of human development and self-evaluation. Consequently, this model provides an organizing framework, which may be useful for self-evaluation and professional development of individuals, planning professional development for faculty members, or perhaps evaluating the professional growth of faculty.

DISCUSSION
Change and Deficiency

In this study, there was an unmistakable pattern of change that derived from identification and correction of deficiencies in practice on the part of the participants. Their responses suggested that as they mentally reviewed a completed class, for example, looked at student work, graded tests, read student or peer evaluations, looking for weaknesses that could be corrected or strengthened. This self-critique or evaluative mindset appeared to drive most decisions to change on the part of the participants. In fact, all but 3 of the individual maps that were created in the study included a specific moment in the life of the individual when the process led to a change in behavior with their professional practice. This observation supports that of Ebert and Crippen's (2010) use of language such as "confront… reform…acknowledge…and threat." This is the idea that motivation for change, at the individual level, may be best activated when it includes clear information about current or past performance that reveals a level of deficiency. This creates an opportunity to compare current or past performance with alternative futures that are within the decision-making authority of the individual and creates a period of cognitive engagement. Ebert and Crippen's contribution, which this study did not address, is the issue of time. Reflective processes take time, and consequently, as Schön wrote, reflection must reach a level of practiced engagement so that, when the pressures of decision-making emerge, the professional defaults to better quality decisions.

This observation also resonates with Rogers' (2003) acknowledgement of future possibilities and the opportunity for correction in a supportive environment. This is somewhat parallel, again, to Gregoire (2003) and Ebert and Crippen's (2010) use of a reform message, almost as an advanced organizer for what the future

should look like, early in the change process, or in the event path model, an authentic event (Wlodarsky and Walters, 2012). It further resonates with Wright's (2009) and others (Wilson, 2008) use of the language of future-orientation for practice change and reflection. The participants' reflections on practice emerged in an environment where deficiency was almost acceptable so long as it was highlighted in a process of reflective change. There was a forgone conclusion (a pre-written reform message, in Gregoire's usage) that a continuous process of critique and growth was necessary in the system, and that future practice should be demonstrably different from past practice. This is, perhaps, a theoretical progressivism operationalized into college practice.

Renewal and Confirmation

Nevertheless, we cannot overlook the fact that for some, reflection is ultimately not entirely a tool for uncovering and rectifying deficiencies in performance or practice, but in fact a process of discovery of strengths and successes, and an opportunity to both celebrate those, and to confirm and plan for continuation in that same path. 3 of the maps which emerged in the study described the reflection path for education professors who made a conscientious attempt to review information about a past experience, generally these were class sessions where they taught some group of students to self-evaluate performance for the purpose of future improvement. In these 3 cases, after cognitively processing information, these professors concluded that they were pleased with their performance, that the event had not created tension or displeasure, but had, in final analysis, proven quite satisfying.

For these professors, change, rejecting and abandoning past practice in favor of a different future, would be abandoning past success in favor of an unknown. They held evidence that their past performance was worth repeating: positive student evaluations, reinforcing peer reviews, examples of student work that demonstrated that the students had learned well the concepts being taught. These professors found confirmatory evidence that the structural elements or characteristics of the event that they had both created and experienced fully met their individual goals. To clarify, it could be interpreted that change still occurred, but rather in the form of a behavioral change, change occurred in the form of attitude. The awareness and ultimately satisfaction-a change in attitude, may not have happened had the participants not reflected on their experience(s).

Interrupting Behaviors for a Reimagined Future

The participants, as judged from the stories and examples that they provided, would resonate with two key ideas that emerge from the recent literature of reflection and change. They seemed to be most influenced in their reflections and in their future planning for change by a confrontation with a behavioral deficiency. Their behavior was interrupted by an observation that they were not functioning optimally so as to fully perform to a level of satisfaction. There were a variety of ways in which this behavior interruption occurred. For some, it was reading student evaluations. For others, it was hearing from a peer either directly or in a written observation report. Yet others reported that they synthesized this conclusion after looking at student performance on tests and written papers. One professor wrote, *A technique that I have found quite helpful is to try to do a written daily recap of each class that I teach. Sometimes the recap is quite brief; other days it may be somewhat detailed. When I teach the course again, I can refer to these daily recaps to reflect upon changes that need to be made.*

Yet another professor wrote, *"I define reflection as focused thinking about my teaching. I do this informally after each class by asking myself what went well, what didn't go as well and what I might change in the future."* These professors, in these same narrative responses, shared stories about "replaying the events of the class in my head as I drove home after class." Another professor wrote, *"I am really bothered when a class ends and I know it didn't work like I know it should have...I dwell on this for days, and I usually end up talking to two other professors about what happened in the class."*

These professors had their movement through time interrupted by an event that was disconsonant with an idealized view of reality or worded differently, by performance expectations. Critically, I observed that nearly all of the participants identified an objectified information or data source, i.e. evaluations, written comments, student work samples, peer reviews. They also identify a cognitive path where they process or revisit the event through the lens of these data, and then reimagine a future that evolves along a different performance pathway. This is, as Wright (2009) wrote, a "best example" use of reflective and reflexive thinking: realizing that what we thought we knew about ourselves, in this case teaching performance, was not true and needed revision and revisiting. This confrontation with self, or interruption of behavior, seems critical for realizing change through reflection, and seems thus to be inseparable from the reflective pathway.

The second key idea emerging from the literature that is directly observable in the participants, and thus a part of the reflective path, is the idea from Rogers (2003) and Wilson (2008) of the reimagined future. The aphorism that "if you always do what you've always done, you will always get the same results" is quite true in education. In a different text, Kouzes and Posner (2010) wrote that focusing on the future remains one of the highest and distinctive characteristics of leadership:

> The capacity to imagine and articulate exciting future possibilities is the defining competence of leaders. Leaders are custodians of the future. They are concerned about tomorrow's world and those who will inherit it. They ask, "What's new? What's next? What's going to happen after the current project is completed? They think beyond what's directly in front of them, peer into the distance, imagine what's over the horizon, and move forward toward a new and compelling future. (p. 46)

The process of change through reflection is, in the most profound and authentic sense, learning to be a leader of one's own professional and personal self. To escape the bonds of the past and past performance mistakes, miscalculations, and miscues, and reimagine a future where one actively performs in a different way, toward a different goal or end, through a different means, or in a different method.

The participants were determined to reach a different outcome "the next time" the class was taught, or the manuscript was submitted, or the interpersonal encounter was repeated. One professor wrote: *"I look back on lessons, presentations and other pieces of work for ways to improve teaching and gain knowledge and suggestions for future lessons."* Another professor wrote, *"reflection is self-examination…examining different aspects of your professional behavior and addressing areas that need improvement."* For these and other professors in this study, reflection produced a conscious and identifiable moment of choice: I will not allow the next event to obtain the same outcomes as the last one.

Implications of Reflection on Teaching Through Change

So, change is confronting and interrupting existing performance to insert an evolved and changed vision of the future, and then acting to see that future materialize. Change. Whether one accepts change gracefully, or fights it, it is a given in professional fields. Many of us,

perhaps because of disposition or personality, embrace change. We relish a rapid pace of movement around and about the status quo. For us, boredom sets in when we are too often confronted with stasis in our professional lives. For others, change is fraught with emotional tension. It is difficult. It is stressful in a negative way and it is, consequently, resisted. But again, as history shows, it is inevitable. Among other reasons change is necessitated:

1) To improve on past deficiencies.
2) To solidify and reinforce past successes.
3) To manage changing contingencies, and consequently is also driven by timetables not of our choosing.
4) To find a consensus or center for socio-cultural compromise.

In all of these circumstances, a reflective approach to change protects the individual and the organization from repeating the mistakes of the past in the unrealized future that Wilson (2008) and Rogers (2003) wrote about. Reflection, as demonstrated in the event path at the core of this study, is a process that can lead to change, but which connects past practice and experience to the unrealized future in an informed manner. The information collected through the tools of reflection, processed cognitively in a way that leads to informed possible futures from which to select trial pathways, guards the professional against thoughtless, reactionary, and fad-driven pivots into a future that is in no way preferable to the past.

FUTURE RESEARCH

In the final analysis, it seems clear that change can and does emerge from a systematic implementation of a process of reflective analysis by individuals within education institutions. Although this process is not guaranteed to produce change, it seems that there are conditions in which the process is more conducive to producing change than others. From the literature and from careful consideration of the data collected over the years of this study, I note and discuss briefly three criteria or situations wherein change is more likely to occur than otherwise and therefore, deserves further inquiry.

First, regardless of the terminology one incorporates for the precipitating event that triggers the reflection process it's clear that interrupting past practices in a way that is knowable, meaningful, and truly disrupting to the individual seems requisite to change. This

implies that change is very related to the degree to which present practices are monitored, documented, and described. Lacking informed feedback, through some type of authentic and realistic assessment framework, blinds the individual to the current "state of practice." This blindness translates to an inability to experience the interruption necessary to know that change is needed. Lacking any means of meaningful confrontation that, following Wright (2009), "what you know about yourself is not true," certainly discounts the potential for meaningful change. If you are not looking realistically at present performance, you have no capacity to triangulate or refine future performance; no capacity for reimagining a future that is different, because "different from what" is unanswerable.

Second, the potential for change seems highly related to how firmly the individual holds to its identity. Is identity fixed or is it fluid? Does the individual professor perceive that he or she has "arrived" fully, with an unquestioned satisfaction, and no space for movement? Am I all that I can be, or is growth possible? As much as anything, these questions reflect and reveal a disposition for change, something that is discussed early on in this study. Some individuals seem predisposed or hard-wired to constantly seek change. Some individuals seem not to be. Beyond this dispositional dynamism, further related to the question of identity and change is the influence of external structures, metanarratives, and hegemonies on the potential for change. These questions of identity and change need to be addressed through further study.

Third and finally, it seems that change is more likely to emerge at the end of the reflection process where an attitude of vulnerability for individual professors is protected, supported in practice, and fostered. Can the individual admit to deficiencies in performance without becoming the target of supervisory and collegial disdain? Is there an attitude, driven from ego or from fear, that the individual itself must, at all costs, present herself as fundamentally "perfected" in ability or capability? We are speaking to personal ego directly at this point. We are, by default in our culture, "the" source of information, "the" experts. For us individually or corporately to believe our own media too strongly is to blind us to the real need to change in ways that evolve instructional methods, research methods, key questions for inquiry, and which capture the myriad, fine details of our role, function, and responsibilities in society and in our fields of inquiry and practice. Change emerges best out of chastened confidence. Confidence, certainly, that we are strategically important as gatekeepers to practice and as researchers of teaching and learning. But confidence that is always subject to revisions, to improvements, to refinement, to change.

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