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ABSTRACT

USE OF STORIES IN COURSES AND STUDENT ENGAGEMENT
AT SOUTHWESTERN MICHIGAN COLLEGE

by

Heather Day

Chair: Jay Brand

ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University

School of Education

Title: USE OF STORIES IN COURSES AND STUDENT ENGAGEMENT AT
SOUTHWESTERN MICHIGAN COLLEGE

Name of researcher: Heather Day

Name and degree of faculty chair: Jay Brand, Ph.D.

Date completed: June 2018

The purpose of this study was to examine the nature of the relationship between the use of narrative in the classroom and student engagement. In this regard, the strategies used to connect students to learning experiences are important to ensuring their engagement. Research questions addressed: 1) What is the level of academic engagement among students at Southwestern Michigan College? 2) To what extent are stories embedded into academic courses? 3) To what extent is student engagement related to the use of stories in students' courses?

To address these research questions, the researcher used two surveys. Survey one used secondary data collected from the 36-item Community College Survey of Student Engagement (CCSSE) conducted at Southwestern Michigan College (SMC) in Spring of 2016. Survey two was administered online to students who had participated in the

CCSSE, also in Spring of 2016. This survey measured student perceptions of teacher narrative use in the classroom. Both surveys used a non-experimental quantitative approach to explore the correlations among narrative use and student engagement.

A factor analysis was performed using principal components analysis with varimax (orthogonal) rotation to examine any possible constructs or patterns in the responses to survey two. The results of the exploratory factor analysis associated survey items with two factors. Factor one measured the use of stories not related to course content. Factor two measured the use of stories related to course content. Student perceptions regarding the extent to which faculty shared stories was measured with a Likert scale representing frequencies ranging from *Never* to *Every Time*. The researcher was interested in any potential associations between student engagement and the independent variable of storytelling.

A canonical correlation analysis was conducted using the five benchmarks in the CCSSE to measure student engagement, as predictors of the nine-item use-of-narrative variables to evaluate the multivariate shared relationships between these two variable sets. The researcher found that students in this sample, compared to national norms, are more engaged in active/collaborative learning, academic challenge, student-faculty interaction and support for learners. Overall, stories were imbedded in courses between 50% to 70% of the time.

Although most results showed only a weak positive correlation, there were three benchmarks showing a positive correlation with the use of stories: active/collaborative learning, student-faculty interaction, and support for students; a significant proportion of the variance in all three of these factors can be explained by use of stories that are related

to courses. In fact, the results indicated that approximately 15% of the variance in student engagement could be explained by the use of stories in the classroom.

In addition to its salient practical considerations, this study improves somewhat on the current dearth in investigations that measure the success of the integration of stories in teaching at community colleges. Additionally, most of the studies on engagement in higher education have reflected traditionally aged university students. No previous studies have been conducted that specifically examine the effects of the integration of stories in the classroom on student engagement at SMC, featuring a relatively young student population.

Andrews University

School of Education

USE OF STORIES IN COURSES AND STUDENT ENGAGEMENT AT
SOUTHWESTERN MICHIGAN COLLEGE

A Dissertation

Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

by

Heather Day

June 2018

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USE OF STORIES IN COURSES AND STUDENT ENGAGEMENT AT
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LIST OF ABBREVIATIONS

CCSSE	Community College Survey of Student Engagement
MBE	Mind, Brain, and Education Science
NSSE	National Survey of Student Engagement
SCT	Symbolic Convergence Theory
SMC	Southwestern Michigan College
TOM	Theory of Mind

CHAPTER 1

INTRODUCTION

According to Abrahamson (1998), “Storytelling is the foundation of the teaching profession” (pp. 440-451). Imparting knowledge to students and being a catalyst for their personal and intellectual growth have long been the charge of the teacher. Storytelling provides fundamental narratives that serve to trigger a sense of engagement and attention in students to facilitate learning.

Stories have always fascinated me. My father exemplified this process of stories creating engagement when I was a child; he was the best storyteller I knew. Many years later, I can still remember the larger than life applications that he taught me through the power of stories.

Somewhat later, but exemplifying a similar experience, during my first year as a teacher, the chair of my department inspired my respect in his storytelling ability. I sat in on one of his lectures, and I observed him draw in his students; they were hanging on his every word, thoroughly engaged. In contrast, at only 23 years old, nervous in front of 30 students, uncertain of my ability to convince them that I had the information they needed to learn, I did not feel the same sense of engagement in my classroom.

After the lecture, I spoke with him:

“I wish my students would be as attentive in my classroom as yours were,” I admitted.

“I am 70 years old,” he whispered, leaning toward me; “I have more stories than you do.”

This seed of wisdom subsequently germinated into my desire to incorporate stories into my teaching and led to my seeking how best to use stories to raise engagement levels among students in the classroom.

The purpose of this study was to examine the relationship between the use of narrative and student engagement. This dissertation specifically investigated and reported the relationship between stories and levels of classroom engagement at Southwestern Michigan College (SMC). It also examined gender influences on both faculty and students while using narrative on student engagement.

Background

A fundamental demographic change in the pool of college-age students (18 to 24 years old) is contributing to a looming crisis for educational institutions. New data released by the National Center for Education Statistics project that the number of high school graduates will only increase by 2% by 2022 (Adams, 2014). According to Adams (2014), between 1997 and 2011, the number of first-time first-year students grew by 39%. However, again by 2022, that growth will slow to 16%. This will have a direct impact on colleges, as they will experience slower growth in enrollment for the next 10 years.

In response to this enrollment trend, education administrators and recruiters at colleges and universities are increasingly resorting to retention studies to address the problem of declining enrollment. Martin (1996) noted that this competition for students and increased attention to retention first became prominent in the late 1990s. Until then,

many institutions had not expended a great deal of effort on admissions, as they were able to maintain their necessary number of applicants without any focused strategy.

One possible approach to improve the prospects of individual institutions, in the light of these somewhat dismal national trends, involves increasing student engagement. Extensive research supports the contention that active classroom engagement results in both higher retention and graduation rates (Harper & Quaye, 2009), perhaps because as engagement increases, the perceived value of the institution increases, decreasing the likelihood of a student's need to transfer. For example, one study suggested that when teachers are perceived by students as approachable and sensitive to student needs, students work harder and are more willing to participate in class discussion (Mearns, Meyer, & Bharadwaj, 2007). Researchers have identified a variety of engagement techniques that, when implemented by college instructors, lead to an increase in classroom engagement (Bryson & Hand, 2007; Mearns et al., 2007).

Kuh, Kinzie, Buckley, Bridges, and Hayek (2006) identified a correlation between deep learning experiences and the promotion of student engagement. Some common examples of deep learning experiences happen when learners are able to work collaboratively, communicate effectively, solve complex problems and incorporate instructor feedback. In their literature review, Scott and Dinham (2008) concluded that narratives were a useful tool for creating deep learning experiences, making them a powerful strategy for classroom engagement. Harper and Quaye (2009) also observed that narrative positively affected classroom engagement. Additionally, Zepke and Leach (2010) concluded that teachers and teaching strategies were central to classroom

engagement, which makes the tools and strategies used to create that engagement highly important.

The available relevant evidence links the use of narrative in the classroom to student engagement, and engagement to student retention, which is one possible approach to declining enrollments. It can be argued that the more engaged students find themselves in learning experiences, the greater the level of perceived value they place on the classrooms and instructors that deliver those deep learning experiences. The higher the value placed on their current place of learning, the lower the likelihood a student would feel the need to transfer.

The strategies used to connect students to learning experiences are important to ensuring engagement. Further research has discussed how narratives may affect the brains of students in ways that facilitate learning new information. Narratives provide a way for brains to embed detail while simultaneously providing the large-scale guiding structure for understanding illustrated concepts. By examining how unconscious engagement occurs through narrative, Espinosa (2010) explained how a narrative engages students by using the strategies that the brain already uses in facilitating learning.

Bryson and Hand (2007) found that classrooms with high levels of student engagement were created by teachers who demanded high standards and made time available to discuss academic progress. This would suggest that what the teacher does in the classroom impacts the level of engagement students feel in the course. According to Espinosa (2010), narrative could be one such tool teachers could use to increase student engagement.

Stories and Pedagogy

Quality teaching is contingent on a meaningful interaction among the teacher, the learner, content, pedagogy, and environmental factors. The positive interplay between these factors brings out the best in a teacher, hence, the best in the learner too. However, pedagogy has an overarching influence on the other factors. Murphy (2008) defined pedagogy, a word derived from the Greek *paidagogia*, as “interactions between teachers, students, the learning environment, and the learning tasks” (p. 35). According to Smith (2006), this modern interpretation derives from a description in ancient Greek literature of a slave who accompanied a young male to school. Smith explained that Plato called them pedagogues—leaders and caregivers of children. It is against this background that one understands the current use of the term pedagogy, as it is used to explain the approaches or strategies employed by teachers to bring students into learning.

What strategies can and should a teacher employ to create a rich learning experience? There is a debate in education circles over the primacy of content—knowledge over pedagogy—the practice of teaching. Historically, according to Mishra and Koehler (2006), it was the knowledge of content that was thought to make the best teacher. However, Mishra and Koehler (2006) showed that quality teaching is dependent on the way all of the variables interact with one another. Prior to Mishra and Koehler, Entwistle (2003) published his theory stating that one must include both content and pedagogy to achieve a learning environment. In addition, more recently, Zepke found, strong learning is correlated to teachers and learners handling content in pedagogically suitable ways (2013).

One such pedagogical strategy currently being explored is narrative. Over the past 30 or more years, in a quest to improve this teacher and learner experience, researchers have been taking a closer look at how stories can shape education. Egan (1986) asserted that stories are an effective educational strategy to improve instruction. Scott and Dinham (2008) indicated that stories should be used to help foster learning between educator and student is not necessarily new information, as we have long been exchanging stories to help garner advice from educator to educator. It is no wonder that thousands of years ago teachers such as Jesus Christ, Buddha, and Lao Tzo all used stories as a way to encourage understanding between teller and listener.

To be an effective teacher, Bollough (2009) wrote that a teacher should be able to inspire students to deepen their understanding of content and push them to transcend the self. Case analysis has been incorporated into teacher education to help educators thinking through the process of teaching, fortifying them both intellectually and personally. Case analysis offers a means for novices to think analytically about the theories associated with teaching and learning theories (Bollough, 2009). Since we use case analysis, or stories of teaching experiences, to create better teachers, could teachers also use stories of experiences related to classroom content to create better learning?

Stories in the Classroom

Hicks (1994) found in his research that narratives, or stories, provided an alternate way of processing content or bringing about understanding, a strategy highly important for both classroom teaching and learning outcomes. Other researchers (e.g., White, 1981) examined the value of narratives in knowing—as in discovering what we know helped listeners attain greater understanding. Increased successful academic performance was

Bruner's (1986) conclusion in his discussion on incorporating stories in teaching. He found that teachers who used stories in lecture had better student success rates. On reviewing the findings of Fairclough in 1995, Hawkins (1997) concluded that, through a teacher's discourse, students are able to shape who they are, whom they think they can be, and eventually whom they will become.

The literature shows that through storytelling students are better able to construct beliefs, perceptions, and evaluations through social exchange. Rex, Murnen, Hobbs, and Mceachen (2002) said, "Theories about narrative as a way of constructing knowing, the known, and the knower depict narrative discourse between teachers and students as an important mode through which academic knowing is tied to student identity" (p. 767).

Rorty (1979) affirmed that being in a social construct is an integral part of understanding and is a key function of knowing. When together, students often use stories in self-reflexive conversation (1979). Through the sharing of stories, participants gain insight into the storyteller's reality, perceptions of self, and their perceptions of others (Rex et al., 2002), "Thus, when teachers tell stories, even when the stories are not explicitly or intentionally instructional, they tell them in a way that represents a view of what counts as classroom appropriate social and academic knowledge and performance" (p. 767).

It is through this social interaction that students discover how they are expected to convey information, show participation, and what tellers need to hear, "On the basis of these story texts, students choose whether, when, and how to enter participatory interactions and evaluate the success of their participation" (2002, pp. 767-768). After the frequency of stories, time spent in the classroom, and a variety of stories told, students

begin to navigate what needs to be known, when to share, and how to succeed in this particular classroom. Through being a hearer, students continually gauge what are positive and negative responses. Stories, then, help students understand what is expected and how to meet expectations in a classroom environment.

Fenstermacher (1986) found that stories eventually influence how students believe one should behave in all classrooms, coining the term, *studenting*. Fenstermacher said that the variety of student experience in classrooms created a story or understanding in students' minds about how teaching should look and how learning should feel.

Tinto (1993) created the student integration model. The theory examines how students' progress from first-time students to mature students. Tinto said that it is through the coupling of academic and social integration that students decide whether to remain in college. As described by Rorty (1979), stories are excellent blocks for social constructs and, according to Tinto (1993), social integration is imperative for student success. Stories are conversational texts that create a sense of sociocultural membership. Stories construct understanding among speakers and listeners (2002).

One form of story that Bollough (2010) asserted is missing from the educational setting is the parable. He held that one reason for this might be that far too few educators are aware of the effects parables could have on the students in their classrooms:

There are many reasons for parables so seldom finding their way into professional education. Perhaps the most obvious one is that few educators are aware of their power or of the up against religious values, parables that speak to professional dilemmas hold the potential for the believer and nonbeliever alike to be surprised, to discover through the encounter something unanticipated about one's understanding of self and of professional practice that is liberating, energizing, and simultaneously troubling, perhaps revealing traces of intellectual narrowness and moral blindness. (Bullough 2010, pp. 153-160)

Horne (1916) affirmed that there was a time when storytelling was one of the three main arts of teaching that affected learning:

Just as we seek out metaphors to highlight and make coherent what we have in common with someone else, so we seek out personal metaphors to highlight and make coherent our own pasts, our present activities, and our dreams, hopes, and goals as well. A large part of self-understanding is the search for appropriate personal metaphors that make sense of our lives. Self-understanding requires unending negotiation and renegotiation of the meaning of your experiences to yourself. . . . The process of self-understanding is the continual development of new life stories for yourself. (Lakoff & Johnson, 2003, pp. 232-233)

Southwestern Michigan College Demographics

Southwestern Michigan College is a public, two-year college located in rural Dowagiac, Michigan. The highest degree it awards is the associate's degree. According to U.S. News and World Report (n.d.), SMC's 2013 enrollment was 2,802, of whom 56% were full-time and first-time undergraduates. The student population was 41% male and 59% female, and 74% white and 11% African American. As for the age distribution, 10% of the student population was under 18, 62% were between the ages of 18-24, and 28% were between the ages of 25-64. The student-teacher ratio was 18-1. Figures were based on the 2009-2012 cohort; the graduation rate was 17% with a transfer out rate of 26%. For spring 2016, SMC's total enrollment was 2106, down 696 students from 2013, a total of 25% in 3 years.

Statement of the Problem

As was previously reported, there have been direct links between student retention and student engagement (Fike & Fike, 2008). Without engagement, student retention declines (Egan, 2008). From the institutional perspective, the financial viability of the

institution is dependent upon enrollment. The question then is how we can retain students in our educational system to graduation:

Public policymakers are advocating accountability, and one strong measure is student retention leading to graduation or transfer. Additionally, the federal Higher Education Act may use graduation rates as a measure of institutional effectiveness. And finally, if not most importantly, we want our students to have a positive college experience, complete their academic goals, and enter the workforce. (Fike & Fike, 2008, pp. 68-88)

The United States previously led the world in higher education attainment as recently as 1990. However, today, the United States ranks 12th (Higher Education, n.d.) worldwide. President Obama's goal for 2020 was to reclaim the number one ranking. He wanted to see America as the best-educated, most competitive workforce in the world. The American Graduation Initiative, that specifically targets community colleges, has set out public policy, funding, and research to meet this goal.

The U.S. Department of Education (2014) reported that 18% of community college students finish their two-year degrees within the three-year average time allotment, and as many as one in three first-year students does not return to school in their sophomore year. The students reported various reasons from family issues to lack of funds, loneliness, and academic struggles. At SMC, enrollment was down 25% in 3 years.

When it comes to finding strategies that positively affect student engagement, very few studies have been conducted to measure the success of the integration of stories in teaching at community colleges. Most of the studies on engagement in higher education reflect traditionally-aged university students (Fike & Fike, 2008). Though the data may draw relevance to all higher education students, there are statistical differences between traditional university students and community college students such as age, minority numbers, and open-door policies (2008). No studies have been conducted that

apply specifically to the effects of the integration of stories in the classroom on student engagement at SMC.

Purpose of the Study

The purpose of this study was to examine the relationship between the use of narrative in the classroom and student engagement. Understanding effective strategies to increase classroom engagement is crucial for pedagogical success.

Through a quantitative research approach, the following questions were addressed:

1. What is the level of engagement among selected students at SMC?
2. To what extent are stories used (embedded) in the courses students take?
3. To what extent is student engagement related to use of stories in their courses?

Rationale for the Study

The rationale of the study was to address instructional strategies that could increase student engagement. In this regard, this study examined the relationship between narrative and classroom engagement. The information garnered from a quantitative exploration of a possible correlation between narrative and student engagement is useful for instructors at SMC as well as administrators interested in retention strategies. Though there have been studies conducted on the relationship between stories and engagement, most have not focused on the community college setting.

Conceptual Framework

The conceptual framework described by Merriam (2009) provided the foundation and underlying structure for this study. This framework helps to identify the variables,

the specific topic, and the relationships that exist between the variables and the topic. A representation of a conceptual framework to relate the use of narrative to classroom engagement is depicted in Figure 1. The constructivist schema of learning model can be found in Figure 2.

Figure 1. Conceptual framework.

Since the early 1900s, researchers have discussed theories that depicted how they believed learning occurred. For example, Piaget and others believed that learning was the product of the interaction between a person and the environment through an ongoing process of construction (Driscoll, 2005). Driscoll explained the term *construct* in constructivism is a root word explaining the accumulative process that is experience-based and includes a building up and refinement of a person's understanding of the world (2005). Each person's understanding of the world is individualized. Piaget's research focused on the learning of children, and this foundation has more recently been extended to consider the construct of how learning develops through active construction of an individual's experience with the world, not limited by the age of the learner.

Figure 2. Conceptual framework—constructivist schema of learning.

Figure 2 illustrates the constructivist's view of learning. The learner experiences three elements: interaction, an ongoing (recursive) process, and change. Learning is the process of interaction with the world. The interaction is translated into an experience, and that experience leads to a lasting change in behavior. Szurmak (2013) described the constructivist idea that emphasizes learning as a process of meaning co-construction and worldview synthesis through a person's ongoing interaction with the world.

Tokuhamma-Espinosa (2008) defined learning as:

Learning can be said to take place in the mind in the psychological sense and in the brain, in a neurological sense. Learning is instantiated in the brain and is prompted by internal thought processes, sensory input, motor training, or simulated perceptual input in the mind resulting in a physiological and measurable change in the neural networks, as well as changes in the muscles and other parts of the body. (Tokuhamma-Espinosa, 2008, p. 23)

Learning is emotional, cognitive, and involves perception, but it is also biological, involving neural processes that actually change the brain. As shown in Figure 2, since learning takes place throughout the course of one's life, one is continually going through experiences that change behaviors and behavioral changes can change the brain permanently.

Before neuroscience could demonstrate a connection between a change in behavior from learning and the creation of a lasting neurophysiological response, constructivist theorists had postulated that connection. Several researchers (Driscoll, 2005; Heath & Heath, 2007; Pinker, 1997) have demonstrated that learning and teaching change the brain at a biological level. Mind, brain, and education science (MBE) interdisciplinary studies began in 2008 (Szurmak, 2013) resulting in the creation of a new field in the neurologically-based study of teaching and learning by researchers and experts from fields in neuroscience, psychology, and education.

Mind, brain, and education science experts examine how the neurological processes in the brain, which happen through learning, shape the behaviors of the person. They do not just examine how we learn, but also how we can create rich learning experiences (Szurmak, 2013). Remember that Scott and Dinham (2008) concluded that narratives were a great tool for creating deep learning experiences, making them a powerful strategy for classroom engagement. This researcher expounded on this concept in Chapter 2.

For educators, teaching creates experiences where learners interact with information that, if internalized, changes their brains and responses. It is important then, for educators to learn strategies that help promote learning and literally change the way

the learner sees the world. We examine more about how stories can affect the brain and learning in Chapter 2.

Significance and Importance of Study

As outlined in the next chapter, the history of the use of narrative reveals the important role of stories in the development and growth of learning. The decline in enrollment at SMC has affected the dynamics of the college. Decreased enrollment leads to fewer course offerings and budget concerns. The findings of this study provide the statistical information needed to implement workshops at SMC focused on the importance of narrative as a teaching strategy to increase student engagement. The findings of this study also affect curriculum development and classroom design. This study provided the necessary groundwork for further studies and plans to increase classroom engagement. A positive relationship between stories and engagement may also provide an opportunity to implement one strategy to increase retention.

Limitations

In a quantitative study using a survey, the accuracy of the study is dependent on the honest self-reporting of the participants. For one to produce measurable results, the researcher would need to be confident that the information produced by the participants was both honest and correct. All findings were based on the student's perceptions.

Delimitation

There were three delimitations to this study: sample size, participant criteria, and other factors. Southwestern Michigan College is a small college with 2,106 students at the time of this study. The Community College Survey of Student Engagement (CCSSE)

was distributed at random to 356 students. The sample size of this study may not have been large enough to make inferences to larger community colleges. However, the findings are relevant to rural community colleges of the same size.

Only registered SMC students who were 18 years or older were asked to participate in this study. This excluded students under the age of 18 and students not registered for the current session. This was deemed to be acceptable in the present study due to time and resource constraints. A survey created to examine the relationship between stories and engagement was submitted as a secondary data collection procedure. Upon approval, the researcher matched student identification numbers to the CCSSE data and compared means with the survey measuring engagement and looked for positive correlations. Only 109 students were able to be matched using student identification numbers.

Although there may be other factors related to classroom engagement, for this study, I chose only to examine one: student perception of narrative used by faculty. There could be other factors that relate to the effects of this study that were not discussed. Alreck and Settle (1995) noted that a measurement is valid as long as it is able to measure all of what it sets out to measure.

Definition of Terms

Student engagement was a term essential to the study, as it was the only independent variable. Kuh (2003) described student engagement as “the time and energy students devote to educationally-sound activities inside and outside the classroom and the policies and practices that institutions use to induce students to take part in these

activities” (p. 25). College student engagement has been measured by researchers by examining the extent to which college students engage in effective educational practices.

Kuh (2009) published student engagement theory using ideas from previous research by Pace (1982, 1984), Astin (1984), and Chickering and Gamson (1987) identifying the seven good practices in undergraduate higher education. Pace (1982, 1984) argued that there is a strong correlation between high-quality effort and achievement. Astin (1984) further advanced Pace’s findings by creating the theory of involvement. Astin’s theory highlighted the effects of time spent and quality of effort.

Kuh (2009) found that when students engage in educationally-productive activities, it develops habits that reach the mind and heart, and furthers the student’s capacity for learning. This specific study was focused on the level of student engagement in effective educational practices within the classroom. For example, do stories cause students to increase classroom participation?

Research that presents the argument that narratives are a good tool to be implemented as a teaching strategy in the classroom abounds. There is less research examining the benefits of implementing narratives in college student classrooms or the role that narratives play in student engagement, though several studies have shown the positive benefits of student engagement in student success. The lacuna in the current research creates opportunities for additional research on the correlation between narrative and student engagement and its effects on community college students. The additional knowledge gained can improve various aspects of student success in the community college classroom and can help guide faculty in the implementation of this strategy. Strengthening classroom pedagogy can only occur when faculty members engage in open

dialogue about strategies that benefit students and teaching. Research in the area of student engagement activities and their relationship to student success must be continual to improve higher education.

Several researchers have agreed that implementing educationally-purposeful strategies influences students' outcomes and correlates with engagement and development (Astin & Antonio, 2004; Chickering, Dalton, & Stamm, 2006, Kuh & Umbach, 2004; Sax, 2004; Strange, 2004).

The terms addressed in the following section include *narrative*, *story*, *parables*, and *student development*. To give better context to the study, this author created an understanding of how the relevant research described these terms.

The terms *narrative* and *storytelling* often are used interchangeably. *The Concise Oxford English Dictionary* (2014) defined narrative as “any account of connected events, presented to a reader or listener, in a sequence of written or spoken words, or in a sequence of moving pictures.”

The word *story* can be used as a synonym for *narrative*. It is defined as “an account of imaginary, or real people and events told for entertainment” (2014, p. 905). The word *story* is also used to denote the sequence of events taking place inside a narrative. Stories and/or narratives differ from *parables* in that a parable is a “simple story used to illustrate a moral or spiritual lesson, as told by Jesus in the gospels” (p. 1287). Thus, the essential difference between stories/narratives and parables is that parables serve to guide an audience or listener toward a common moral point or spiritual understanding. Both stories and narratives have been known to build connection among their readers/listeners and the storyteller (Bullough, 2009).

Rogers (1990) defined the *development* of college students as “the ways that a student grows, progresses, or increases his or her developmental capabilities as a result of enrollment in an institution of higher education” (p. 27). Astin (1999) defined development as, “the amount of physical and psychological energy that the student devotes to the academic experience” (p. 297).

Researchers have measured the development of college students by looking at the progression students make socially and cognitively. While each of the elements has been studied (i.e., engagement and narratives) it is important to look at them together to understand more effective tools to increase classroom engagement in community colleges.

Methodology

This dissertation reported examined students at SMC. The purpose of this study was to examine the relationship between the use of narrative and student engagement. In addition to the described purpose of the study as mentioned above, the methodology used sought to focus on the use of teaching with narrative in higher education, specifically looking at its effects in the community college classroom.

Through a quantitative survey research approach, the following questions were addressed:

1. What is the level of engagement among selected students at SMC?
2. To what extent are stories used (embedded) in the courses students take?
3. To what extent is student engagement related to use of stories in their courses?

The third chapter examines the methodology used in greater detail.

The foremost research instruments used for data collection by higher education institutions are surveys or questionnaires because they can be administered quickly to a large pool of participants providing insights into the strategies' effectiveness (Chickering et al., 2006; Middaugh, 2009). This researcher used the survey method, as this was the dominant method being used to measure engagement.

The *National Survey of Student Engagement* (NSSE), also known as *The College Student Report*, assesses the extent to which college students engage in educationally-effective practices. The CCSSE is an adaptation to the NSSE and is used for the community college setting. The website, ccsse.org, described it as:

The Community College Survey of Student Engagement (CCSSE), a product and service of the Center for Community College Student Engagement, is a well-established tool that helps institutions focus on good educational practice and identify areas in which they can improve their programs and services for students. Administered during the spring to mostly returning students, *CCSSE* asks about institutional practices and student behaviors that are highly correlated with student learning and retention. (p. 1)

Summary

The purpose of this study was to examine the relationship between the use of narrative and student engagement. This dissertation specifically investigated and reported on the effects of stories on levels of classroom engagement at SMC.

The remaining four chapters of this dissertation are organized as follows: Chapter 2 covers the theoretical framework more closely, as well as provides a review of the relevant research literature. Chapter 3 describes the methods used to study the phenomenon, along with data analysis, operation procedures, and an examination of the techniques used in the analysis. Chapter 4 outlines the results of the study by

summarizing the data pertinent to the research questions. Chapter 5 looks at the implications of the study as well as limitations and suggestions for future research.

CHAPTER 2

REVIEW OF THE LITERATURE

Student Engagement

There is a broad definition of the term *student engagement* in the literature. The term is typically used to describe the extent to which students are involved in meaningful educational experiences and activities. For the purpose of this study, the researcher used the definition of Kuh (2003), as he has published much research on the topic including student engagement theory. Kuh (2003) defined student engagement as “the time and energy students devote to educationally-sound activities inside and outside the classroom and the policies and practices that institutions use to induce students to take part in these activities” (p. 25).

This study sought to identify and further understand the effects of narrative on student engagement at SMC. In addition, the study sought to focus on the use of teaching and using narrative in higher education, specifically looking at its effects in the community college classroom. Understanding effective strategies to increase classroom engagement is crucial to the development of the college’s financial and pedagogical success.

The review of the literature addressed the following questions:

- What is the relationship between stories and classroom engagement?
- Do stories increase the level of engagement among classmates?

- What is the relationship between the use of stories and the student's engagement with his or her instructor?
- What is the relationship between stories and learning?
- How do stories affect the brain?

Higher Education and Engagement

Extensive research on engagement (Astin 1984, 1985; Chickering & Gamson, 1987; Kuh, 2003; Pace, 1982) has found that student engagement is positively tied to desired educational outcomes and retention. Engagement is a topic institutions expend time and money to focus on because of the impact it has on classroom and student dynamics on campus. In Astin's (1984) theory of involvement, he proposed that student learning is an outcome of a student's level of academic and social involvement within the environment of the institution. Pace's (1984) theory discussed how student effort is impacted by the opportunities that an institution gives its students and the extent to which students use the opportunities they are given.

Tinto's (1993) model of student departure examined the persistence of students who stay in college, and how that persistence is impacted by the students' perceptions of shared values, norms, and their integration in the college environment. Student engagement research has shown that student engagement is connected to student effort, student-faculty interaction, and active learning. These habits reinforce a student's perceived involvement (Astin, 1984).

Pascarella and Terenzini (2005) looked at academic integration and found that it is a positive predictor of student persistence. Kuh (2003) found that there is a positive correlation between student-faculty interactions and student satisfaction and that there is

a positive relationship between student-faculty interaction and the amount of time students devote to educationally-purposeful activities. This research all supports the findings of Astin in 1984, that involvement reflects both the students' and college's efforts.

Engagement has been linked positively to successful higher education outcomes in a wide range of literature on the subject. Kuh (2003) found that students who engage in educationally-productive activities develop habits that reach the student's mind and heart. James Stephenson, an Irish poet, famously said "the head does not hear anything until the heart has listened". Stories are tools to connect to students' hearts. In 1986, the U.S. Department of Education put out research that found that students with low motivation and weak academic skills were more likely to participate in reading, listening, and writing when placed in the context of storytelling. Therefore, storytelling leads to higher engagement.

Egan (1988) has been a leading researcher in stories and teaching. He has studied how stories help us organize information, and allow our brains to tie together content. He encouraged faculty to see their curriculum as stories. He believed that teachers today do not need to be far removed from the teachers and philosophical leaders of past times. He said teachers are the tellers of our culture's tales. A key point of Egan's was that stories would belong to students forever. He believed that stories build shared intimacy. Perhaps this is why stories are at the center of symbolic convergence theory (SCT).

Symbolic convergence theory allows all members of a group to find common ground. According to Griffin (2011), SCT creates "group consciousness, cohesiveness" through mutual understanding. Through SCT, otherwise separate worlds begin to collide

and even overlap and start to create their own social reality. As students all share common life experiences among each other, these shared stories create fantasy chains and themes. Shared stories give a sense of familiarity and belonging to their groups. Astin (1984) argued that student belonging is related positively to student involvement. These concepts of student involvement have had many applications in the world of higher education, particularly research on student engagement.

In 1990, the United States ranked first in the world in regard to higher education receivers. As of January 2015, we were number 14 (Higher Education, n.d.). Because of downward trends in regard to the United States and education, President Obama developed an initiative with the goal of reclaiming our spot as leaders internationally. He wanted to see America as the best-educated, most competitive workforce in the world by 2020.

One of the initiatives that President Obama believed would make higher education more affordable for middle-class families was his plan called “paying for performance.” The plan tied financial aid resources to college performance. The college performance rating system was based on the value of education from that facility. He also planned to challenge states to fund prospective colleges based on the college’s performance. One initiative in his paying for performance plan was to better regulate the students and colleges receiving student aid. Students receiving aid need to be progressing toward their degrees. The White House released the statistic saying that only 58% of students who began college in 2004 earned a four-year degree within six years (Higher Education, n.d.). While students may be registering for college, there are many who are not being retained.

Obama's plan was to encourage competition among higher education institutions. The government would award colleges that worked to find high-quality education initiatives that were affordable. The hope was to encourage innovation by stripping away unnecessary regulations. The plan was to base student aid on college value by 2018.

In Obama's attempt to foster competition, the government would start funding colleges or offering more incentives for colleges that were experiencing higher completion rates. As it stands currently, colleges are rewarded based on how many students attend. The larger the seat number, the more funding. Under the new directive, schools would be competing to graduate students rather than just admit them.

At the president's address to the University of Buffalo, he provided the following statistic, "The average tuition at a public four-year college has increased by more than 250 percent over the past three decades, while incomes for typical families grew by only 16 percent, according to College Board and Census data" (Higher Education, n.d., p. 1).

Community colleges offer education to low and middle-class families that may not be able to afford the high cost of four-year institutions. Like many community colleges, SMC receives the majority of its funding through student aid. Had Obama's plan for 2020 gone through, and colleges were awarded aid based on completion, then retention strategies such as engagement would have continued to become increasingly valuable to their institutions.

This researcher chose to add to the existing literature in the community college market, as there was less information available on this demographic. Townsend, Donaldson, and Wilson (2004) examined approximately 2300 articles published between 1990 and 2003 pulling from five major higher education journals and found that only 8%

of these articles mentioned community colleges. Pascarella and Terenzini (2005) studied the connections between student engagement and desired outcomes, and found that only 5% of the studies they came across focused on community college students. Since there are substantial differences between the university setting and its students, and the community college setting and its students, the researcher studied student engagement and its relationship to stories within the community college classroom. Because stories showed a positive relationship to student engagement, it is a cost-effective tool that can be implemented by faculty at SMC to improve engagement in the classroom.

The CCSSE is conducted every three years at SMC and is a national survey instrument. The data obtained from these surveys are intended to aid teaching and learning practices in community colleges.

Stories in the Literature

Carnegie Mellon conducted a study in 2004 (Heath & Heath, 2007). They were curious about the best way to get people to respond to the needs of others. They gave participants five one-dollar bills as a contribution for completing a random survey with questions about technology products. However, the survey was designed to simply ensure that all of the respondents had cash available for when they would be asked to donate to a charity in Africa. After completing the survey, the participants were given their cash and asked if they would donate to *Save the Children*, an organization dedicated to servicing the needs of third-world children. The researchers tested two versions of this request letter. The first featured statistics about the mounting problems facing the children in Africa. The other letter simply told the story of one seven-year-old girl named Rokia and used her story as the face for *Save the Children*. On average, participants who read the

first letter donated \$1.14 to the charity. Participants who read the story of Rokia gave \$2.38. Therefore, the story surrounding Rokia garnered twice as much as the letter with statistics. Researchers theorized that this is because statistics connect to us analytically and stories connect to us emotionally, in this case, resulting in greater donations.

Research has to explore the process that creates a connection between storyteller and listener (Bullough, 2009; Hammack, 2008). Many psychological, cognitive theories have discussed why stories and parables connect to the human brain. Some research has suggested that parables and stories are a useful way to retain and decode a message. Another study (Zook, 2014) implied that instructional analogies could be risky for the instruction and deconstruction process of the learner. The goal of this study was to explore the uses of stories and their effects on the listener in building a human connection.

A careful review of many of history's great leaders suggested that they often relied on stories or parables to teach important lessons. In an attempt to deconstruct better the effects of stories on their listeners, the objective of the current study was to examine the effects of stories at SMC.

The framework of the study first required a thorough investigation of the relevant research literature to define *narrative*. Many such definitions include, "Talk organized around significant or consequential experiences, with characters undertaking some action, within a context, with implicit or explicit beginning and end points, and significance for the narrator or her or his audience" (Miller-Day & Hecht, 2013, p. 658). The word *story* has been used as a synonym for narrative. Story has been defined as "an account of imaginary, or real people and events told for entertainment" (2014, p. 905). The word

story also has been used to denote the sequence of events taking place inside a narrative. Stories and/or narratives differ from parables in that a parable is a “simple story used to illustrate a moral or spiritual lesson, as told by Jesus in the gospels” (2014, p. 1287). Thus, the essential difference between stories/narratives and parables is that parables serve to guide an audience or listener toward a common moral point or spiritual understanding. Both stories and narratives have been known to build connection among their readers/listeners and the storyteller (Bullough, 2009).

Some examples of parables that have been used to guide the audience to a moral or spiritual lesson would be the appreciation of hard work hidden in the story of the three little pigs, the allegory that teaches children to appreciate their uniqueness in the metaphor of the ugly duckling, and so on.

All stories that evoke morality inspire listeners to action. For example, the autobiographical story of the life of Gandhi has connected with countless people across cultural and generational lines. The effects of Gandhi’s life and mission on India have created a sort of autobiographical story. The same is true of Martin Luther King, Jr. in the United States, Nelson Mandela for South Africa, Jesus Christ for the Christian church, and Buddha for Eastern practice and way of life. Interestingly, each one of these leaders used the power of narrative in the form of parables to create change.

Depending on the course content, parables could be an effective learning strategy. The word *parable* comes from the Greek word *parabole*, which means to compare (Oden, 1978). Parables have been used to puzzle their listeners and encourage a wider depth of thinking while creating the allurements of human connection:

As such, parables have enjoyed a prominent place not only among the great religious traditions but also in the writings of Plato, Nietzsche, and Kierkegaard, among others.

There is more than a 2,000-year history of parable writing and speaking, and many parables are almost universally known—the parable of the Good Samaritan, for example. That so many parables are so well known says something significant about their power to stir imagination and about how deeply and securely they settle in memory. (Bullough, 2009, pp. 153-160)

Turner (1996) argued that narrative parables especially command attention:

Parables begin with narrative imagining—the understanding of a complex of objects, events, and actors as organized by our knowledge of story. It then combines story with projection: one story is projected onto another... This classic combination produces one of our keenest mental processes for constructing meaning. (Turner, 1996, pp. 85-86)

Turner (1996) went on to suggest that the organization of parables in the brain, like the organization of metaphors, might be one of the largest components of mental functioning, a “Parable serves as a laboratory, where great things are condensed in a small space. To understand parable is to understand root capacities of the everyday mind” (Turner, 1996, pp. 85-86).

One must understand what happens when learning by parables through the process of relational comparison. When people deconstruct information through the use of analogy, they are looking at situations that have relational similarities though their features may be different. Oppenheimer (1956) said that there should be “a special kind of similarity, which is the similarity of structure, the similarity of form, a similarity of constellation between two sets of structures, two sets of particulars, that are manifestly different but have structural parallels” (p. 129). Parables place two ideas alongside each other to compare them. The speaker takes a familiar event and pairs it alongside a less familiar event to create a better understanding for the listener. The one fundamental feature that must be present in parables is the use of analogy (Zook, 2014).

Comparative analogies can be represented by saying that A is to B as C is to D. The letters A B C D are representative symbols of words, principles, or objects.

Zook (2014) said that the root of the link is the comparable relationship that holds between AB and CD ($A:B = C:D$). For the listener to understand an analogy, the thinker must observe the relationship between A and B and then be able to transfer that relationship to C and D (2014).

Woodhull (2013) said that one could not discuss parable research without looking at the work of Ricoeur. Ricoeur analyzed parables by combining literary theory, biblical criticism, rhetoric, and philosophy. Ricoeur (1975) wrote:

The parable is the closest metaphorical counterpart of what appears as a model in the theory of science . . . If a model is a heuristic device, which serves to break up a previously inadequate description and to blaze a trail toward a new, more adequate description, the metaphor comes closest to this heuristic function when the metaphorical process is channeled by a *fictional narrative*. (p. 315)

Parables and narratives are great strategies that have been proven to challenge the mind toward deeper learning. There are considerations that should be made while applying stories to learning. Lindemann (2002) contended that when defining narratives considering them within their social context is necessary. Lindemann (2002) also said narration must involve the context of power because it assumes the other is a competent narrator. We listen to stories of people we believe deserve to be heard. Narrative requires that to support narration, social protocols that allow the speaker time and attention to deliver her or his story to an audience are necessary. In addition, these protocols are informed by power differences between the speaker and audience, such as a pastor to his congregation. This is why Lindemann linked narration to the context of power.

DeVito (2013) defined power as the ability to influence what someone else thinks or does. Narratives then become joint co-constructions of reality based on the interdependence of a speaker and his or her social audience. Through the use of stories, a

speaker and hearer can exchange realities. In other words, our stories are truly linked to power.

It should be noted that much of the narrative research conducted deals with verbal stories. Hydén and Peolsson (2002) linked this phenomenon to the fact that verbal language has often been privileged above nonverbal language, especially in Western cultures. In response to why verbal narrative often commands more privilege, Antelius (2009) explained:

Perhaps it is because narratives have traditionally been viewed as verbal stories where the past, present, and future have been the building blocks of the story created? However, narratives need not be structured on temporal time; rather they can build upon a perception of space. (pp. 2-14)

Antelius (2009) went on to emphasize that narratives do not need to be verbal. Narratives are also performed, staged, and lived. A narrative may take form as social action rather than as a verbal story. Parry and Hansen (2007) defined story as having a discursive plot that includes a beginning and end conveying a meaningful past or future experience.

With DeVito's (2013) definition of power, stories hold power by influencing their audience through the ability to share their narrative. Stories also have the ability to elicit a common human understanding within audience members so that they come to identify with the characters (protagonists or otherwise) in the story. Stories also hold power in the sense that they can evoke emotion. The power of stories becomes the power of connecting to our deepest level of human experience. Exactly which emotions become cued by a particular story depends on the interpretive lens applied by individual listeners.

If the available research demonstrates that stories can connect to our emotions by resonating with past experiences, can stories affect future experiences? Parry and Hansen

(2007) said that people use stories to create who they are, we also tend to “live” by those stories, and use them to guide our actions and behaviors.

One of the reasons stories may create a human connection is because, while listening to a story, we tend to respond immediately with our own stories, “Too rarely do we remove our lenses and simply allow the words of the Other (what philosophers call their otherness) to pour into us. Either way, the narrative inevitably invites an encounter” (Cottle, 2002, p. 3).

In the last 25 years, researchers have been interested in how narrative affects our lives, relationships, and human experience (Hammack, 2008; McAdams, 1990, 1996, 2006; Thorne & Nam, 2007). With the present researcher’s background being in communication studies, it is important to note that many scholars believe that the study of narrative is the most beneficial approach to understanding more about interpersonal communication and relationships among oneself and others.

Stories and the Brain

Recent research in neuroscience has shown the brain is hardwired to respond to stories:

It’s no surprise that when given a choice, people prefer fiction to nonfiction—they’d rather read a historical novel than a history book, watch a movie than a dry documentary . . . because our neural circuitry is designed to crave story. (Cron, 2012, p. 2)

Cron (2012) went on to explain that a well-told story triggers a rush of intoxication and that this is what makes humans primed to absorb the many different lessons each story can provide.

In his book called *How the Mind Works* (1997), cognitive scientist Steven Pinker described a recent brain imaging study that revealed what regions of the brain are

activated when one processes sight, sound, taste, or movement in real life. It was found that the same areas of the brain were activated when participants were engrossed in a compelling story. We place ourselves inside a story cognitively. Our brains experience stories as if they were part of real life and as if they were happening to us.

When readers read one sentence, our senses interact with 11,000,000 pieces of information. Our conscious is only capable of registering approximately 40 pieces of that information. Of that 40, we will focus on approximately five pieces. Our brain is always working to analyze what is relevant and what are irrelevant pieces of information (Wilson, 2002). When our brains decode what is important to pay attention to and what is irrelevant, it comes down to one word—survival, “Your subconscious brain—which neuroscientists refer to as the adaptive or cognitive unconscious—is a finely tuned instrument, instantly aware of what matters, what doesn’t, why, and hopefully what you should do about it” (Cron, 2012, p. 7).

Brains, then, are continually experiencing macro and micro details to events and are storing those data. Various experiences that trigger either the macro or micro details of these bits of information can trigger the entire experience to come back to focus (Szurmak, 2013).

Neuroscientist Antonio Damasio (2010) explained how stories actually are biologically hardwired in one’s brain to help navigate the constant information being sent to us:

The problem of how to make all this wisdom understandable, transmissible, persuasive, enforceable—in word, of how to make it stick—was faced and a solution was found. Storytelling was the solution—storytelling is something brains do naturally and implicitly . . . it should be no surprise that it pervades the entire fabric of human societies and cultures. (p. 293)

The brain is frequently seeking meaning from all of the input. Through the story, it tells us what needs to be known for survival. The brain does not just give us information. Rather, it casts us as the protagonist and then edits the input based on past experiences and how things may affect us. It creates a map of connected memories and ideas and even provides us with space for future reference. Story is how we give language to our experiences (Cron, 2012). Therefore, our brains are wired by story.

Stories also help our brains process possible outcomes. Pinker (1997) indicated that human brains continually analyze what ifs through fictional narratives. We think about what would happen if we had an affair, asked our supervisor for a raise, lost a friend to illness, etc. Our brains automatically render images for a fictional sequence of events that could possibly answer these what if questions. Pinker wrote (1997), “the cliché that life imitates art is true because the function of some kind of art is for life to imitate it” (p. 543).

Paul Zak is a researcher at the University of California Berkeley focusing on how stories shape our brains as well as connect strangers to one another by using empathy. In Zak’s research with the Greater Good Science Center, he wanted to determine how respondents would react in a lab when shown a highly emotional story. The video he showed was a father describing the agony of watching his two-year-old son, Ben, play while he was dying of cancer. It was difficult for the father to be joyful around Ben because the father knew what is coming. In the end, he decided to find the courage to be genuinely happy for Ben’s sake, right up to Ben’s last breath (Zak, 2014).

In his study, Zak found that while watching the highly emotional video about Ben, two primary emotions were elicited by the listeners: distress and empathy. After the

video was over, when the listeners were probed for what type of feelings they had experienced, they did not provide clear responses. To develop more concrete information about how the respondents were affected by the story, blood was drawn from listeners before and after viewing the story. Two chemicals were seen to increase in the listeners after the completion of the story: cortisol, the stress hormone, which Zak also said, focuses our attention on something (2014) and oxytocin. Oxytocin is a hormone often associated with care, connection, and empathy (2014). It was found that the more oxytocin the listeners released, the more empathic and connected they felt to the story of Ben and his father.

Participants were given 20 dollars to watch Ben. After the experiment, the participants were provided an opportunity to share their earnings with a stranger who was also in the lab. Participants who had produced high levels of cortisol and oxytocin were more likely to donate money to a stranger after the story. In another study using the same video, participants were offered to donate money to a charity that worked with children. Again, it was found that the participants who released higher levels of both cortisol and oxytocin were more likely to donate to charity. In fact, Zak found that in both studies, the amount of oxytocin released predicted how much money people would share with either a stranger or a charity. Zak proposed that narratives could change behavior because they change brain chemistry. The people who donated money on average donated half of their earnings after watching the video of Ben's story.

These are similar results to the study mentioned earlier conducted at Carnegie Mellon in 2004 (Heath & Heath, 2007). Participants who read the story of Rokia, gave double the amount of money when compared to participants who only read statistics

about children in Africa. Stories are great strategies to increase learning because learning, like stories, changes behavior.

To understand further how stories affected the brain, Zak wanted to determine whether his test was accurate enough to predict who would donate money. By measuring heart rate, blood samples, skin conductance, and respiration, they were able to predict with 80% accuracy who would end up donating money before even giving the option of donating it. Zak also used functional brain imaging to try to identify the regions of the brain that were most active in participants during the story in comparison to a control video, which just showed Ben and his father going to the zoo. The most active areas in the brain during the imaging for participants watching the control video were the areas of the brain correlating to theory of mind (TOM), which again relates to the understanding of what others are doing. The other active areas of the brain on the imaging scans were the areas rich in oxytocin receptors, which resulted in empathy. *The Oxford English Dictionary* defined empathy as the ability to understand and share the feelings of another (2014, p. 151).

Interestingly, after watching 100 seconds of Ben and his father at the zoo, nothing happened on the brain imaging, and people seemed just to zone out. Since nothing exciting was happening, the brain did not respond to stress through cortisol, and since nothing emotional was happening, the brain did not show oxytocin receptivity. These findings seem to align with Gustav Freytag's idea that stories or dramas are divided into five parts comprising the *dramatic arc*. In his pyramid, Freytag (2014) said dramas need:

1. exposition,
2. rising action,

3. climax,
4. falling action, and
5. denouement (or resolution).

The story of Ben and his father, where his father is talking about Ben dying, goes through Gustav's dramatic arc sequence.

According to Gustav, these are the particular aspects of a story involved in making an effective narrative that evokes the most emotion from the listener. Cron (2012) described stories as being subdivided into four categories: the plot, the protagonist, the question, and what it is about. According to Cron (2012), "what happens," is the plot; "someone," is the protagonist; the "goal," is what is known as the question; how the protagonist changes is what the story is about; "as counterintuitive as it may sound, the story is not about the plot or even what happens in it. Stories are about how we, rather than the world around us, change" (p. 11). Stories make us feel connected to how the protagonist navigates the circumstance. Our brains start wondering how we would navigate the same plot.

Cron (2012) agreed with Gustav (2014) that stories best take hold of us when we find a reason to care about what is happening in the story. Cron indicated that when we listen to stories, our brains experience the firing of dopamine neurons that signal us that something intriguing is on its way. This means that for instructional purposes teachers should implement stories as a strategy when they have intriguing information to relate. In other words, rather than explaining to the class the definition of the four components that make up our self-concept, a communications professor would be better off to tell stories of how each of these components was realized in his or her own life. Students would be

more likely to internalize and engage with the narrative than the definitions. This is because narratives stimulate the firing of neurons, which cause us to think something important is imminent.

Mind, brain, and education science says that the brain needs several things to learn. There should be some level of emotional engagement, a practicality to where the information will be used, examples of how a pattern that helps the learner follow or engage with the information, as well as enough detail to allow the learner to zoom in and out of various segments of the information (Szurmak, 2013). It is clear that a well-constructed narrative can create many elements that would support and engage a learner.

According to Zak (2014), stories are powerful because when following this sequence, they transport us into the world of the characters and change our brain chemistry. Human beings are social creatures in the sense that they are able to connect to others and care for others (even complete strangers), and dramatic stories cause the brains of listeners to transform their owners into more social creatures. People donated money because they wanted to help Ben and his father, even though they were not real. They were able to feel a sense of connection because the hormone oxytocin caused them to feel a connection, even to strangers who may be going through a similar story in real life. It also posed the question of what would happen if they were Ben's father. How would they feel, and would they want someone to help them? Stories allow the brain to construct alternate realities.

Zak (2014) went on to explain that scientists liken the human being's ability to pay attention to something or someone to a spotlight. Humans tend to shine spotlights

only on narrow areas. If one area seems less interesting to us than another, our minds will wander, as happened in the control video of the story of Ben and his father at the zoo.

Zak (2014) said:

Using one's attentional spotlight is metabolically costly, so we use it sparingly. This is why you can drive on the freeway and talk on the phone or listen to music at the same time. Your attentional spotlight is dim, so you can absorb multiple informational streams. You can do this until the car in front of you jams on its brakes and your attentional spotlight illuminates fully to help you avoid an accident. (p. 1)

Storytellers are better able to keep an audience's attention by using stories that create the hormone cortisol, which seizes the listener's attention, and oxytocin, which connects them to the story. It is also good to use a story or theme to which an audience member can relate. Participants were able to attend to the story of Ben and his father because everyone can relate to the idea of having an emotional experience that is difficult to undergo. Participants were able to connect their own stories to Ben's father's because they too may have needed to dig deep to experience resolve:

In the brain, maintaining attention produces signs of arousal: the heart and breathing speed up, stress hormones are released, and our focus is high. Once a story has sustained our attention long enough, we may begin to emotionally resonate with story's characters. Narratologists call this "transportation," and you experience this when your palms sweat as James Bond trades blows with a villain on top of a speeding train. Transportation is an amazing neural feat. We watch a flickering image that we know is fictional, but evolutionarily old parts of our brain simulate the emotions we intuit James Bond must be feeling. And we begin to feel those emotions, too. (Zak, 2014, p. 1)

Such research answers additional questions. Narratives and stories can create shared, co-constructed realities and social contexts that influence their listeners. People are not just influenced by the realities of other people; they are also influenced by the shared reality created through stories. Wilkins (1984) found that stories help listeners recall events by helping the brain retain information. As discussed earlier, this happens because human beings connect stories to their lives and those connections retain

memories. Parry and Hansen (2007) believed the more memorable the story, the greater is the impact upon the audience.

Theory of mind describes the act of creating a mental state (e.g., beliefs, intents, knowledge, pretending, desires) in one's own mind and/or to others, and to understanding that outside individuals have varying beliefs or mental states that differ from one's own but may be similar in important ways (Fernandez, 2013). Theory of mind research was given significant attention after the Sally-Anne test was created by developmental psychologists to measure a person's social cognitive ability to attribute false beliefs to other people (Wimmer & Perner, 1983).

In 1988, Leslie and Frith took the Baron-Cohen Sally-Anne test and modified the puppet play using human actors instead of dolls. The play, or story, unfolded like this: The researchers told the children observing that the characters in the story represented real people. They introduced the characters Sally and Anne to the children. Then a short skit ensued. One of the characters, Sally, took a marble and placed it in her basket. She then went for a walk and left the room. While she was away, Anne took the marble from Sally's basket and hid it in her own basket. The character Sally was then reintroduced, and the control question was asked: "Where will Sally look for her marble?"

To pass the test, the child must acknowledge that Sally would look for her marble in her own basket because that is "the belief" in Sally's reality. This shows that the child understands that this character is experiencing her own reality, which does not need to align with the reality of the participant who has just watched the story unfold. The participant knows that the marble is actually in Anne's basket, but Sally would not yet know that. Most of the children answered the control question correctly. This shows that

children were able to identify that characters in stories experience their own beliefs that may not coincide with actual reality. This is the essential premise of TOM.

Simulation theorists have developed their own theories about how human beings can participate in this false-belief phenomenon:

Given this focus, simulation theorists conceived of mindreading as the ability to model another person's subjective outlook onto the world by using our own cognitive and deliberative capacities in an imaginative and off-line manner. Such imaginative modeling minimally requires that I am sensitive to the relevant differences between the person whom I try to understand, and myself. It requires that I have the ability to feed my own cognitive system with so-called pretend-beliefs and pretend-desires, that is, beliefs and desires that I normally do not share with the other agent. (Stueber, 2012, p. 55)

This idea supposes that human beings have cognitive processes and beliefs that they quarantine from the other person in their social context. This description provides further explanation for our inquiry as to how stories affect listeners. Stueber (2012) believed it was only in this manner that the imaginative use of one's cognitive processes enabled one to simulate another person's mental processes in such a way.

Stueber (2012) defined three distinct phases of simulation:

1. *A matching phase.* This requires one person to "imaginatively" adopt the other's beliefs about the world. To do this one must quarantine one's own beliefs and desires so that one does not communicate them to the others.
2. *The simulation phase.* This is where the person entertains and contemplates reasons behind the actions from the other's perspective.
3. *The attribution phase.* After completing contemplation of another's perspective, the person bases his or her psychological interpretation of the action of the other based on what happened during the simulation phase.

This perspective of simulation theory has presented a debate between simulation theory and theory-theory, “Theory theorists use the term ‘perspective taking’ to describe how one makes inferences about another person’s inner state using theoretical knowledge about the other’s situation” (Ratcliffe, 2006, pp. 31-52). What has resulted from this debate are two camps with different views on understanding other people as minded agents.

Stueber created the term *re-enactive empathy* to describe the process of one human being sharing a connection and understanding the thought processes of another. Re-enactive empathy states, “we grasp another person’s action as a rationally compelling one because we can grasp his agency” (Stueber, 2012, p. 28). To simplify this point, Stueber used the following example. Students expect from their teachers that they will grade their papers. For students to understand the specific grade their teacher assigned them, they need to understand the rationale of the teacher when approaching their papers; they must understand the teacher’s behavior in terms of his or her mental state as his or her reasons for the action (Stueber, 2012). Stueber (2012) tried to explain the narrativist approach to co-constructed realities by saying:

Normally, understanding another person’s action is accomplished by our ability to fit that action into a larger context in light of shared cultural-background assumptions. It is exactly this ability of fitting actions into a larger presupposed background that narrative competence is supposed to consist in. (pp. 55-63)

All of these findings help provide insights into how we make meaning of stories. For the Christian educator, it also makes more meaning as to why Jesus may have used stories as parables to create stronger meaning with his audience. When Jesus spoke to his audience, we know that children were often present. Such examples are found in

Matthew 19:14 when he said, “Let the little children come to me, and do not hinder them, for the kingdom of heaven belongs to such as these.”

Research has shown that storytelling could enhance the TOM of children.

Guajardo and Watson found that preschoolers could detect deception better after being exposed to a program using storytelling intervention (2002). Peskin and Astington did a similar study in 2004. They exposed four- to five-year-old children to picture books rich in “explicit metacognitive terms” for four weeks (Guajardo & Watson, 2002). The intervention seemed to improve both production and comprehension of reading skills. Storytelling is a great tool to use when trying to get the point across to a wide audience. While teaching at a community college, one is exposed to a varied demographic of audience preparedness and mental abilities. Stories make good strategies for creating learning.

Stories and Teaching

Storytelling has been a form of teaching for centuries. Some of the greatest names in earth’s history have used narrative to create a connection and help foster understanding, teachers such as Zeno, Lao Tzu, and Jesus of Nazareth were all great storytellers, and their words have been passed down through generations (Bullough, 2009). Even when seeking input on improvement, professionals are more likely to readily trust advice from colleagues than theories in textbooks. It has been argued, “Teachers who are looking for ways to solve problems or make decisions in their classrooms are highly likely to prefer the example or advice of a colleague to the disembodied wisdom of a theory or set of empirical findings” (Scott & Dinham, 2008, pp. 115-124).

That human beings form identity through narrative has been hypothesized in the work of many researchers such as (Brockmeier & Carbaugh, 2001; Bruner, 1990, 2002; Cohler, 1982; Cohler & Hammack, 2007; Gergen & Gergen, 1983; Hinchman & Hinchman, 1997; McAdams, 1990, 1996, 2006; McAdams, Josselson, & Lieblich, 2006; Mishler, 1999; Somers, 1994).

Hammack (2008) said human development is experienced by creating a narrative. McAdams (1995) said the only way to know a person fully is to encounter the life story that he or she constructed through narrative. According to Hammack (2008), “The psychological process of story-making, or narrative construction, is related to intimacy, well-being, and ego development” (pp. 222-247).

According to the Clayman Institute for Gender Research at Stanford, stories are remembered up to 22 times more than facts alone. This is a strategy then for educators to help students retain information. With new research being conducted in the field of MBE we can now implement teaching strategies, such as narrative, which already correlates with how the brain is wired to process information. If you provide students with information, and then couple that with a story, the students are not only more likely to learn but also to retain what they learned. Since stories also help produce the hormone called oxytocin, which is responsible for human connection, teachers who use stories are connecting students to themselves. By having students share their own stories, they are connecting the students to each other. Stories that can create emotions based on students’ past experiences will only further that connection.

Bruner (1990) found that emotion is the underlying driver of brain activity. It is emotional engagement that drives a learner to seek meaning and, therefore, plays a large

role in the learning process and outcome. Bruner also discovered that learning could not be isolated from a social dimension, as learning takes place best when we can ask for feedback and deconstruct thoughts with others about what we are being stimulated by. Neuroscience has shown that brains learn best when facts are embedded, and new skills are made applicable and natural to practical examples (Driscoll, 2005). Stories do this because they involve the listener in the actions of the story, as TOM has suggested. Mind, brain, and education science supports the use of narrative as a strategy for both teaching and learning. This is because narrative provides a learner with examples that are applicable to learning, and stories are embedded with details.

Remembering Figure 2 in Chapter 1, Szurmak (2013) said, “A narrative, thus, provides the social context and the scaffolding—or matrix—for the integration of new experiences as the learner progresses through the task of working through the new problem” (p. 548).

In Figure 2, we can visualize learning through the constructivist model, which says that experiences shape and change the learner through interaction. Narrative works because it guides learners through the events of a problem and the brain starts to create solutions to resolve the problem, then storing the correct resolution as learners feel as though they are actually living the experience.

Agneta (2006) was a chemistry instructor and researcher of pedagogy. She relayed a real-life story of sharing narrative in her classroom to foster student engagement with learning, “The narrative, connected to a well-known event, aroused their interest greatly. Chemistry was set in a useful context, and the abstract theories were shown to have great value for human enterprises” (p. 549). This is an example of

narrative as a vehicle for learning that takes details and puts them in an organized pattern that allows the brain to transform an interaction that is experienced in an environment with an internal interaction and with the event itself.

As earlier research has explained, our brains experience life through story (Cron, 2012). Therefore, many researchers have argued that the best way to reach and engage learners is through narrative. Construction theory explains that learners take new knowledge, weave it into existing experiences, and create new narratives of meaning. Case study, role playing, critical incidents, and simulation are all mentioned in the research as positive forms of story-based learning that lead the student to engage fully with the content (Szurmak, 2013).

Studies have long indicated that narrative is a central process of being able to make meaning out of life experiences. Not only do we as human beings use narrative to construct the meaning of our experiences with others, but we also use it to construct an understanding of our inner experience with ourselves:

This recent work in personality and social psychology affirms the notion that it is through narrative that we come to understand the meaning that a life possesses, both for an individual and in his or her relation to some particular social and cultural ecology. (Thorne & Nam, 2007, pp. 222-247)

As found in the research, stories have proven to create a high social presence and are good agents for carrying symbolic information that conveys meaning. Stories have the ability to influence their listeners, create a co-constructed reality between storyteller and listener, and improve recollection. Stories also help listeners/readers feel more connected to the storyteller and the characters in the story.

One of the most important strategies that educators can use stories in their classrooms to accomplish is to give students power. According to Pink (2012), stories

have the ability to create and instill power in their listeners. First, stories call people to listen, and listening is a tool of power. He explained that studies have already shown that stories are persuasive, causing people to move from one perspective to another. Research has already demonstrated (Heath & Heath, 2007; Zak, 2014) that stories affect the listener both emotionally and intellectually, and that our brains are driven primarily by emotion.

Stories have been studied as tools to persuade people about oneself (Pink, 2012), but educators have the ability also to use stories to persuade the learner about the value of the learning experience. Teachers can use either their own stories or the stories of significant leaders to inspire students about what they can achieve. Pink (2012) explained that people who learn to harness the power of stories are able to move others to action, cause others to invest in a perspective, and persuade people. His research in marketing examines how the stories one tells change the way people see the storyteller. It could also be suggested that the stories one tells could also be used to change the way the listener sees himself or herself.

In a community college classroom, where many of the students are experiencing significant obstacles to their learning environments that prevent them from believing they can succeed in the classroom (e.g., retention issues, poverty, and full-time employment; Fike & Fike, 2008), this power that the instructor can harness to persuade them that they can, could be highly beneficial to student success. Stories of past student successes in the subject matter could also connect students to a belief that they can succeed.

Last, stories have the power to influence the actions of their listeners and can initiate a listener placing himself or herself into the story. DeVito (2013) defined power

as the ability to influence what someone else thinks or does. As stories build a connection between storyteller and listener, the ability of the story to influence the listener increases and this is why stories have power and can empower the teachers who use them. Tinto (1993) said that it is through the coupling of academic and social integration that students decide whether to remain in college. Narrative is a teaching strategy that increases student learning, and social integration, which is important for both classroom engagement and retention.

CHAPTER 3

METHODOLOGY

Introduction

According to Abrahamson (1998), storytelling is the foundation of the teaching profession. This dissertation investigated and reported on the relationship between stories and levels of classroom engagement at SMC. This third chapter examines the methodology used by the researcher. This chapter describes the type of study used, the population, the sample, a definition of variables, the data collection procedure, and data analyses.

Research Questions

Through a quantitative research approach, the following questions were addressed:

1. What is the level of engagement among selected students at SMC?
2. To what extent are stories used (embedded) in the courses students take?
3. To what extent is student engagement related to use of stories in their courses?

Research Design

To address the research questions, the researcher used secondary data from a non-experimental quantitative approach conducted by SMC to explore the correlations among narrative use and student engagement. This study used survey as the research design. The

dominant strategy used by higher education institutions to measure engagement is the survey or questionnaire method, which can be quickly administered to a large pool of participants providing insights into strategy effectiveness (Chickering et al., 2006; Middaugh, 2009). According to Middaugh (2009), the survey is a systematic method of data collection. It is a tool for measuring attitudes and behaviors and allows the researcher to use these measurements in statistical analyses.

Creswell (2003) indicated there should be five criteria used when conducting a quantitative study using survey as the design: (1) information should be quantified by using numeric data to explain trends and attitudes of the population sample; (2) it should intend to determine relationships between an independent variable and dependent variables for the population; (3) it should relate variables in the form of research questions or research hypotheses; (4) it should use standards for validity of the instrument as well as reliability; (5) the survey should test and verify theories and provide explanations. Surveys were used according to Creswell, to provide numeric values for information.

The current study met these criteria. The conceptual understanding of student engagement was converted into numerical data by measuring the five benchmarks of the CCSSE. The research also had specific research questions that sought to explain a relationship between narratives and student engagement. Survey is the dominant strategy used by student engagement quantitative research, as the NSSE and CCSSE are the leading student engagement studies nationally. By using a survey, the current researcher was able to connect the CCSSE survey with an additional nine-item survey measuring narrative usage in the classroom. The researcher was looking to test associations between

stories and student engagement. *The Constructivist Schema of Learning* (Figure 2, Chapter 1) says that experiences can influence learners to have a change in behavior. The study used student engagement as the independent variable and narrative use as the dependent variable to see if narrative would have any effect on student engagement. Many studies have shown that student engagement deepens learner experiences in the classroom (Kuh, 2003, Astin, 1984). Strategies to deepen student engagement should be tested.

Some advantages of surveys are they are easy to develop and allowed the researcher to collect data without meeting with students personally. It was also cost-effective.

Some disadvantages of survey research are that a researcher cannot control how many responses he or she gets to the surveys. Some respondents are difficult to reach, especially using an online survey as the research method. To meet this challenge the current researcher contacted students school email addresses which students are told in class to check regularly by faculty.

Another challenge is that respondents of surveys also may not feel encouraged to provide accurate, honest answers to survey questions. They may experience boredom or memory errors. Because of this, the researcher limited the survey to nine items, which aided in reducing errors of fatigue.

Population/Sample

The population of the study was SMC students. Three hundred sixty-five students at SMC were randomly drawn during spring 2016 to take the CCSSE survey. Community College Survey of Student Engagement is administered to students in randomly selected

classes at each participating college. The required number of course sections to be surveyed is determined by the total sample size needed to reduce sampling error and to ensure valid results. The CCSSE liaison at SMC wanted to reach at least 20% of the student population which was represented by the 356 students. Of these 356 sampled students, only 109 were able to be matched by the current researcher using student identification numbers because of gaps in the numerical coding of students on the CCSSE.

The CCSSE administrators lead by SMC's head research office used simple random sampling to select students, which helped the researcher reduce human bias in the student selection. This process of simple random sampling allowed the researcher to generalize statistical inferences from the sample to the entire population.

Instrumentation

The two instruments used to collect data was CCSSE and the student survey of use of stories. First the researcher will address the CCSSE instrumentation. In Appendix B, the 38 questions of the 2016 CCSSE survey are listed. These items operationally define five student engagement benchmarks which are groups of conceptually-related survey items that examine practices of an institution as well as behaviors of students that promote student engagement. The five benchmarks used have shown through research to be important in educational practice. Through examining the results of factor analytic models, the CCSSE grouped survey items that were related to each of the areas. In the CCSSE are collaborative learning, academic challenge, student effort, student-faculty interaction, and support for learners. When a college receives the data from the CCSSE, two types of benchmark scores are included in the data set: raw benchmark scores and

standardized benchmark scores for each student who responded. To create the benchmark scores, the survey items associated with each benchmark are rescaled (0 to 1) to ensure that all items are on the same scale. Benchmark scores are calculated by averaging the scores of the related survey items. The scores then get standardized around the mean of the three-year cohort. This provides respondents scores with a mean of 50, and a standard deviation of 25. Benchmark scores are then averaged by the associated items. Having the scores on the same scale makes comparison across the benchmarks meaningful. Some of the limitations of raw benchmark scores are that some student engagement activities take place in greater frequency than others. Homework is one of the engagement activities and raw scores for homework would always be higher than raw scores for a student talking with their instructor about career plans. Standardized scores also provide information to an institution about how they compare to other institutions in these categories.

Scores can be computed by weighting the average of the individual benchmark scores:

- The active and collaborative learning benchmark was measured using seven CCSSE survey items: 4a, 4b, 4f, 4h, 4i, and 4q. According to [ccsse.org](http://www.ccsse.org), the process for converting the original scale for each item 0-1 varies only by the number of response options given for any item. The math for converting each item is presented at http://www.ccsse.org/survey/docs/How_Benchmarks_are_Calculated_2017.pdf
- The student effort benchmark was measured using eight items: 4c, 4d, 4e, 6b, 10a, 12d1, 12e1, and 12h1.

- The academic challenge benchmark was measured using 10 items: 5b, 5c, 5d, 5e, 5f, 6a, 6c, 7, 9a, and 4o.
- Student-faculty interaction was measured using six items: 4j, 4k, 4l, 4m, 4n, and 4p.
- The support for learner's benchmark was measured using seven items: 9b, 9c, 9d, 9e, 9f, 12a1, and 12b1.

The CCSSE is administered to random samples of students and allows institutions to develop statistics that generalize their findings to any demographic(s) of interest to those institutions.

For the purpose of this study, the researcher was given access to the CCSSE results of SMC. Along with the campus coordinator under the approval of the research committee at SMC, the researcher added an additional nine-item survey to the CCSSE that examined the use of narrative in the classroom. The campus coordinator used a paper format for the CCSSE survey while the additional questions were collected electronically for the purposes of this study. The additional survey questions dealing with narrative were employed using SurveyMonkey.com, which is an online instrument for fast data collection and analysis. The data were to be matched using identification numbers, a method of student identification at SMC. These student identification numbers were coded for the purposes of this dissertation. Information collected from the surveys has been represented using tables and quantified showing relationships.

The CCSSE has provided course numbers as an identifier to match students and teachers to the course in which they took the survey. The researcher needed to match the

CCSSE data to the identification numbers used in the story survey using the data from SurveyMonkey.

The NSSE, also known as *The College Student Report*, assesses the extent to which college students engage in educationally-effective practices. The CCSSE is an adaptation of the NSSE for the community college setting.

The NSSE, the primary survey to the CCSSE, has been one of the most widely used surveys to measure the college student experience and was developed by academic professionals interested in a tool that would accurately measure student engagement. The NSSE reports having a high level of validity (ccsse.org). It is continually adapted and adjusted reflecting the changes in research collected to measure student engagement better. The NSSE was developed by implementing the strategies gained from research of student self-reports.

The CCSSE was adopted in 2001 (The CCSSE, n.d.) as a part of the Community College Leadership Program. Grants from Houston Endowment, The Pew Charitable Trust, Lumina Foundation for Education, and many additional sponsors have supported its creation. The CCSSE works in partnership with the NSSE. The survey collects data from participating colleges and universities throughout the United States, Puerto Rico, and Canada. It is administered at the end of the academic year, and students answer survey questions about their participation in several educationally purposeful activities. Students also answer background information intended to examine personal and educational growth in various areas (Kuh, 2009). Benchmarks were created to examine the effective educational practices of student engagement. Community College Survey of Student Engagement is one of the most widely used tools for data on student engagement.

There has been substantial research using the CCSSEE and NSSE as valid instruments to measure engagement (2009).

Carini, Kuh, and Klein (2006) have developed six conditions that need to be addressed to establish validity and credibility self-reports by students, which are conditions that the NSSE has met. Turi (2012) listed these as follows:

- The information requested is known to the respondents.
- The questions are phrased clearly and unambiguously.
- The questions refer to recent activities.
- The respondents think the questions merit a thoughtful response.
- The information requested is potentially verifiable.
- The question asks for information that is known to those answering the questions and does not threaten, embarrass, or violate their privacy or encourage the respondents to respond in socially desirable ways.

This was the measure of reliability for the CCSSE. Kuh (2003) described student engagement as “the time and energy students devote to educationally-sound activities inside and outside the classroom and the policies and practices that institutions use to induce students to take part in these activities” (p. 25). College student engagement has been measured by researchers by examining the extent to which college students engage in effective educational practices.

The CCSSE data source measures engagement by collecting data on the students’ perceived experiences in the classroom with questions that identify active and collaborative learning, student effort, academic challenge, student-faculty interaction, and support for learners on campus.

According to [ccsse.org](https://nces.ed/ipeds/data/collegenorms/), students learn more when they are actively involved in their own learning activities and join in with other students in learning objectives. The extent to which students participate in class, interact with other students, and extend learning outside of the classroom was measured by the active and collaborative learning benchmark.

The student effort benchmark measures the student's perceived time spent on tasks, preparation for class, and use of student services. According to past CCSSE national data, the student effort benchmark is related to retention measures.

The academic challenge benchmark looks at the extent to which students perceive they are engaged in challenging mental activities in class as well as the quantity and rigor of schoolwork. This benchmark has been most positively related to the academic outcome of student grades.

The student-faculty interaction benchmark measures the extent to which students communicate with their faculty about career goals, class content, academic performance, and class assignments. According to past CCSSE national data, student-faculty interaction shows a correlation between faculty interactions, and first- to second-year persistence of students. It also showed a correlation between academic outcomes and student-faculty interaction.

The final benchmark measured support for learners. It was students' perceptions of the college's advising and counseling services. According to past national data collected by the CCSSE, this benchmark has not shown any correlations between student grade point average and credit completion.

In the student survey to measure use of stories the instrumentation was as follows: Questions were measured on a seven-point Likert scale. The scale was measured by frequency of use with the following descriptions provided:

1. Never,
2. Rarely, in less than 10% of class periods
3. Occasionally, in about 30% of class periods
4. Sometimes, in about 50% of class periods
5. Frequently, in about 70% of the class periods
6. Usually, in about 90% of the class periods
7. Every time.

The validity of the additional nine-item survey questions administered was based on the subjective perceptions of the students and their perceived experience with narrative in the classroom and measured using exploratory factor analysis to determine the variance. The factor analysis was performed as a principal component analysis using varimax (orthogonal) rotation to examine underlying constructs of the nine use of stories items. The two scales were tested for reliability using alpha estimates. Principal components analysis was used because it is the most frequently used tool for exploratory analysis and for making predictive models. The reliabilities showed each factor had sufficient internal consistency.

The results of the exploratory factor analysis placed items into two factors. Factor two measured the use of stories related to course content. Factor one measured the use of stories not related to course content. The extent to which students perceived faculty to share stories was measured on a Likert scale ranging from *Never* to *Every time*. The

researcher was looking for relationships among perceived use of stories and the independent variable of student engagement.

The researcher then used a canonical correlation to look for associations between student engagement and teacher use of narrative in the classroom. Canonical correlation is an analysis most used when examining the associations between two sets of measures. The measures themselves are also correlated within sets (Sherry & Henson, 2005).

This was a strictly non-experimental quantitative study with the survey as the primary tool. The data were analyzed using descriptive and inferential statistics, which allowed the researcher to provide useful suggestions back to SMC on whether the use of narrative as a teaching strategy has a positive linear relationship with student engagement. Since the very definition of learning suggests that new information changes behavior, the relevance of this study is highly important as a learning tool for teachers seeking to improve retention.

Procedure

In spring of 2016, SMC administered the CCSSE, an engagement survey provided at the college every three years. The researcher had to submit an Internal Review Board application for approval to the research board at Andrews University. After being granted approval, the researcher met with the research committee at SMC. The purpose of the dissertation was explained to the board both verbally and in writing. The researcher was then granted access to the data collected from the CCSSE and was given permission to send the nine item follow up survey by school email to each of the students who took the CCSSE. Students were notified through email that participation in the survey was totally voluntary and that there were no penalties for choosing to not participate in the survey.

Informed consent was obtained by students when they chose to click “begin” after the explanation of survey was provided.

Each of the 56 instructors at SMC was selected to participate in the survey. Through a process of random selection, one class was targeted per instructor. The CCSSE provides instructions on how to perform the random sample. The guidelines are as follows:

1. Each course should be listed as a single row of data.
2. Include only the following course types in the file.
 - a. All courses eligible for college and/or institutional credit
 - b. First-year and sophomore-level courses
3. Include the following course variables as column headers (*requires variables, +if available):
 - a. Campus location*, Building*, Start time*, room*, End time*, start date*, meet days*, end date* actual enrollment*, Section number*, instructor first name+, Instructor last name+, Course number*, Course name*, department+, Course name*, instructor email+
4. Exclude the following courses from the file:
 - a. Courses that do not count toward a degree or institutional credit
 - b. Lowest-level ESL courses
 - c. Dual-enrollment courses offered exclusively to high school students
 - d. Courses offered to incarcerated populations
 - e. Distance learning courses (online only)
 - f. Practicums, internships, clinicals, and co-ops
 - g. Lab sections associated with lecture (when both enroll the same group of students)
 - h. Individual instruction and independent study
 - i. Courses with a regular meeting time and location
 - j. Multiple cross-listings of the same course
5. Special cases:

- a. Cohort or learning community courses: include only one instance of each cohort or learning community course to avoid having the same group of students sampled multiple times
- b. Cross-listed or team-taught courses: list as a single row of data with enrollments summed
- c. Courses with different meeting times on different days: list only one meeting time and day
- d. Developmental courses: include if they are eligible for financial aid
- e. ITV courses: include all sections of the same course as one listing with enrollments summed, but only if survey administrators can be at all locations at the same time and date for administration
- f. Late-or second-start courses: include if they meet during the survey administration window

During the administration of the survey, the CCSSE liaison helps the campus coordinator in the survey administration process. The liaison reminds the coordinator about deadlines and needed materials. The CCSSE provides a liaison to every campus when conducting the CCSSE. The coordinator for SMC is Dr. Angie Evans, who administers the surveys and obtains course master data from the survey, along with cover sheets and program codes.

According to ccsse.org, the role of the campus coordinator also is to make sure, “the survey script is read to each class. The script contains important information about which all participants must be made aware before they complete the survey” (p. 1). The CCSSE guide and instructions can be found in Appendix C and D of this dissertation.

Dr. Evans met with students in the selected courses and administered the survey in person. Before taking the CCSSE students were told that their responses would be used for additional research at the college and a possible dissertation study. If they did not mind their information being used in further research, they were asked to indicate their identification number. Upon completing the CCSSE in the classroom, students who provided identification numbers received an email invitation from [surveymonkey.com](https://www.surveymonkey.com) to complete a follow-up survey dealing with the use of storytelling in the classroom. This

survey was completed electronically. The raw data have been stored by the office of institutional research since spring of 2016.

Data Analysis

Through a quantitative research approach, the following questions were addressed:

Research question 1: What is the level of engagement among selected students at SMC?

The analysis used to respond to this question was analyzed as secondary data by the CCSSE. Students responded to a paper survey with 38 items. The items were also standardized so that SMC was able to compare the average mean of their student responses to comparable colleges. This was the appropriate test to use to measure student engagement as it is the nationally recognized engagement tool for community colleges.

Research question 2: To what extent are stories used (embedded) in the courses students take?

The analysis used to respond to this question was analyzed using a nine-item survey measuring use of stories. Questions were measured on a seven-point Likert scale. The scale was measured by frequency of use with the following descriptions provided:

1. Never,
2. Rarely, in less than 10% of class periods
3. Occasionally, in about 30% of class periods
4. Sometimes, in about 50% of class periods
5. Frequently, in about 70% of the class periods
6. Usually, in about 90% of the class periods
7. Every time.

The items in this research were closed questions for survey analysis. This means that the respondents were asked to select a response that most closely reflected their opinion. This made it easier to gain informed consent from the respondents because the questions were already defined. This was a non-experimental study, which also helped lower the ethical risks involved. These strategies made the respondents clear on the risks and provided them with an opportunity to decline participation before even beginning the survey. This helped minimize the ethical concerns of research.

Research question 3, to what extent is student engagement related to use of stories in their courses?

The data for research question 3 were analyzed using canonical correlation, which allowed the researcher to provide useful suggestions back to SMC about whether the use of narrative as a teaching strategy could positively affect classroom engagement. Within this survey, the researcher examined the gender of the students along with perceived narrative use. The researcher also compared the gender of the instructor either implementing or not implementing the narrative strategy to look for significant interaction. The researcher conducted a canonical correlation to evaluate the research question.

This allowed the researcher to examine the independent variable of student engagement as is listed in Figure 1, and how it was affected by storytelling. It also provided information on the current engagement of SMC students in comparison to other community colleges in the nation. The researcher used a canonical correlation to look for associations between student engagement and teacher use of narrative in the classroom. Canonical correlation is an analysis most used when examining the associations between

two sets of measures. The measures themselves are also correlated within sets (Sherry & Henson, 2005). Thompson (1991) said canonical correlation has an advantage over multiple regression in that canonical correlation analysis helps reduce the likelihood of type one errors.

Summary

In this study, the researcher sought to examine the relationship between stories and engagement. The researcher used a canonical correlation to look for associations between student engagement and teacher use of narrative in the classroom. The research questions attempted to better understand student engagement among students at SMC, to what extent stories were embedded in the courses students took, as well as to what extent student engagement was related to the use of stories in the course.

In the following chapter, readers will see the survey results for the above research questions as well as a deeper look at the demographics of students. Chapter 5 will provide a discussion of these findings, theoretical implications, suggestions for future research.

CHAPTER 4

RESULTS

Introduction

This study was an exploratory inquiry into the association of student engagement and teachers' use of narrative. Kuh (2003) described student engagement as “the time and energy students devote to educationally-sound activities inside and outside the classroom and the policies and practices that institutions use to induce students to take part in these activities” (p. 25). College student engagement has been measured by researchers by examining the extent to which college students engaged in effective educational practices. This dissertation investigated three research questions:

1. What is the level of engagement among selected students at SMC?
2. To what extent are stories used (embedded) in the courses students take?
3. To what extent is student engagement related to use of stories in their courses?

In this chapter, the researcher looked for associations between the independent variables using student engagement benchmarks and the dependent variables as measured by the nine-item survey on storytelling. The method of analysis was canonical correlation. The canonical correlation coefficient is the Pearson r relationship between two variables on a canonical function. A canonical correlation analysis was conducted using the five benchmarks in the CCSSE to measure student engagement, as predictors of

the nine-item use of narrative variables to evaluate the multivariate shared relationships between these two variable sets.

Description of Participants

There were 109 participants in this study. Table 1 summarized the demographic characteristics of these participants. They are mostly female (55.05%), not married (84.4%) and reported English as their first language (91.1%). Most participants are white (73.5%), earned a high school diploma or GED (89%). The average respondent reported maintaining a C– or lower ($n = 42$) at 35.9%.

The largest demographic was between the ages of 18 to 19 years old (43%). The least represented age group was between 50 and 64 with just one respondent.

Preliminary Analysis

Reliability Estimates of Student Engagement Variables

Internal consistency reliability estimates are reported in Table 2. Cronbach's alpha range from a low of .62 for active and collaborative learning to a high of .78 for support for learners. George & Mallory (2003) report that reliability estimates of .6 or greater are acceptable, suggesting that the items defining each of the student engagement variables are related to each other.

Table 3 shows factor loadings, variance and reliability estimates of the two factor solutions extracted through principal component analysis (PCA) and then rotated orthogonally. Principal component analysis was used because it is one of the most widely used procedure for data reduction with results that are more easily interpretable (Stevens, 1992). With $KMO = .803$, $\chi^2 = 447.62$, $df = 36$, $p < .001$, there is sufficient

Table 1

Demographic Characteristics

Variable	<i>N</i>	%
<i>Sex</i>		
Male	49	41.9
Female	60	51.3
<i>Marital status</i>		
Married	17	14.5
Not married	92	78.6
<i>English as First Language</i>		
Yes	100	85.5
No	9	7.7
<i>Racial Identification</i>		
American Indian or other Native American	2	1.7
Native Hawaiian	3	2.6
Black or African American, non-Hispanic	9	7.7
White, non-Hispanic	86	73.5
Hispanic, Latino, Spanish	7	6.0
Other	1	.9
<i>Highest Credential Earned</i>		
High school diploma or GED	89	76.1
Vocational/technical certificate	8	6.8
Bachelor's degree	7	6.0
Other	1	.9
<i>Overall GPA</i>		
A	2	1.7
A- to B+	1	.9
B	5	4.3
B- to C+	14	12.0
Hispanic, Latino, Spanish	29	24.8
C- or lower	42	35.9
No GPA at this school	14	12.0
<i>Age Group</i>		
18-19	51	43.6
20-21	26	22.2
22-24	8	6.8
25-29	8	6.8
30-39	12	10.3
40-49	2	1.7
50-64	1	.9

Table 2

Reliability Estimates of Student Engagement Variables

Variable	#of items	Cronbach's alpha
Active and collaborative learning	7	.62
Student effort	8	.64
Academic challenge	10	.74
Student-faculty interaction	6	.74
Support for learners	7	.78

Note. $n = 109$.

Table 3

Rotated Principal Component Analysis Loadings

	Loadings	
	1	2
7. Stories help learn materials.	.825	
6. Stories help understand materials.	.814	
9. Stories help being more comfortable with instructors	.792	
8. Stories help being more comfortable with classmates	.790	
5. Instructor encourages students to share stories	.757	
3. Instructor share personal stories related to course	.680	
1. Student share personal stories related to course	.654	
2. Student share personal stories not related to course		.873
4. Instructor share personal stories not related to course.		.790
Variance	45.25	18.10
Cronbach's alpha	.88	.63

Notes. $n = 109$. Extraction method: principal component analysis. Rotation method: varimax with Kaiser normalization rotation converged in three iterations.

inter-correlation among the items to indicate that the data is factorable. Factor loadings of .4 was used as the cut-off for including (Stevens, 1992).

As shown in Table 3, two factors were extracted using Kaiser's criterion of eigenvalue greater than 1. The scree plot appears to support a two-factor solution as well. For simpler interpretation, the factors were rotated orthogonally using the varimax

procedure. Factor one explained 45.25% of the variance; factor 2 explained 18.10% of the variance. Factor one is defined by the following items: “stories help learn materials,” “stories help understand materials,” “stories help me in being more comfortable with instructors,” “stories help me in being more comfortable with classmates,” “the instructor encourages students to share stories,” “the instructor shares personal stories related to course,” and “students share personal stories related to course.” These items are about use of stories by students and instructors related to the course. Thus, factor one is labelled as ‘use of stories related to courses’. Factor two is defined by two items: “students share personal stories not related to course,” and “instructor shares personal stories not related to course.” Both items are about use of stories by students and instructors not related to courses. Thus, factor 2 was labelled as use of stories not related to courses. Internal consistency reliabilities are .88 for factor 1 and .63 for factor 2 which are acceptable values (George & Mallory, 2003).

Analysis by Research Questions

Level of Student Engagement

Research question one asked: “What is the level of academic engagement among students at Southwestern Michigan College?” The engagement of students is measured by 38 engagement items from the CCSSE survey that report important aspects of a student’s experience. Five student engagement benchmarks are defined by the 38 items. These are:

- active and collaborative learning,
- student effort,
- academic challenge,

- student-faculty interaction, and
- support for learners.

Mean and standard deviations of each benchmark are reported on Table 4. Students in this sample, compared to national norm, are more engaged in active/collaborative learning ($M = 57.92$, $SD = 21.79$), academic challenge ($M = 60.18$, $SD = 23.47$), student faculty interaction ($M = 60.0$, $SD = 22.14$) and support for learners ($M = 55.12$, $SD = 20.94$). As is displayed in Table 4, SMC students are less engaged than the national average on student effort ($M = 46.77$, $SD = 24.34$). Approximately 70% of SMC students were engaged at or above the national median on three of the benchmarks: active and collaborative learning, academic challenge and student-faculty interaction. And about

Table 4

Level of Student Engagement

Variable	M	SD	Percent			
			≤ 25	26-50	50-75	≥ 76
Active and collaborative learning	57.92	21.79	7.3	24.8	47.7	20.2
Student effort	46.77	24.34	22.0	35.8	29.4	12.8
Academic challenge	60.18	23.47	7.3	22.9	43.1	26.6
Student faculty interaction	60.00	22.14	8.3	20.2	48.6	22.9
Support for learners	55.12	20.94	11.0	25.7	48.6	14.7

Note. $n = 109$.

63% are engaged at or above the national median on support for learners. Less than half (42.2%) are engaged at or above the national median on student effort.

One of the areas of interest to the researcher was what role gender played in student engagement. Table 5 reports the percent of students by gender who were engaged at or above the national median. Generally, there is a larger percentage of female than

male who are engaged at or above the national median in four of the five benchmarks, particularly in the areas of active and collaborative learning, academic challenge and student-faculty interaction. A larger percentage of males than females are engaged in support for learners. Among males, they are most engaged in student-faculty interaction while among females, they are most engaged in academic challenge. However, these apparent gender differences are not statistically significant ($p > .05$)

The researcher was also interested in whether students with an instructor of the same gender would be more likely to be engaged than students of opposite gender instructors. Table 6 shows mean and standard deviation of student engagements for gender-matched and non-gender matched students. Gender-matched students report higher levels of engagements in all five benchmarks. However, these group differences

Table 5

Percent of Students Who Met Engagement Criteria

Variable	Male	Female	Total
Active and collaborative learning	61.2	73.3	67.9
Student effort	34.7	50.5	43.1
Academic challenge	63.3	78.3	71.6
Student faculty interaction	69.4	73.3	71.6
Support for learners	67.3	60.0	63.3

Notes. $n = 109$, male $n = 49$, female $n = 60$.

are not statistically significant at the 0.05 level. With a low effect size (d) of .15 (absolute value) for support for learners to a high of .34 (absolute value) for student-faculty interaction, the magnitude of the differences between groups, at best, are weak.

Table 6

Student Engagement by Gender Match (Student and Instructor)

Variable	Group ^a	<i>M</i> ^b	<i>SD</i>	<i>t</i> ^c	ES(d)
Active and collaborative learning	0	55.26	22.00	-0.90	-.18
	1	59.24	21.72		
Student effort	0	41.90	24.66	-1.48	-.30
	1	49.17	23.98		
Academic challenge	0	56.95	25.15	-1.01	-.21
	1	61.77	22.60		
Student-faculty interaction	0	55.03	22.43	-1.66	-.34
	1	62.45	21.73		
Support for learners	0	52.99	23.73	-0.74	-.15
	1	56.17			

Notes. ^aGroup: 0-no gender match, 1-gender match. ^bMeans based on 1-*Never* to 7-*Every Time*. ^c*df* = 107, *p* > .05.

Thus, the gender-match between student and teacher did not influence levels of student engagement.

Use of Stories in Classes

In question two, the researcher asked: “To what extent are stories embedded into academic courses?” Table 7 provides the means and standard deviations of student responses ranging from *Never* to *Every Time* of items on the use of stories related to courses and stories not related to courses. The results show the average mean ($m = 4.36$, $SD = 1.40$) of factor one was nearly two points above the mean of factor two ($m = 2.53$, $SD = 0.97$). This would suggest that use of stories related to courses are more often used than stories not related to courses.

The factor mean for stories related to courses is 4.36, indicating that overall, stories are imbedded in courses between 50% to 70% of the time (according to the scale,

Table 7

Means and Standard Deviations of “Story” Items

Statement	<i>M</i> ^a	<i>SD</i>	% ^b
Factor one: Use of stories related to course	4.36	1.40	
Find stories helpful in learning materials	5.04	1.40	83.5
Stories help being more comfortable with instructor	4.87	1.42	81.7
Instructor use stories to help me understand material	4.86	1.18	85.3
Stories help feel more comfortable with classmates	4.62	1.43	78.0
Instructor share personal stories related to course	4.41	1.26	70.6
Instructor encourages students to share stories	3.51	1.49	47.7
Student share personal stories related to course	3.22	1.39	39.4
Factor two: Stories not related to courses	2.40	0.97	
Instructor share personal stories not related to course	2.53	1.06	16.5
Student share personal stories not related to course	2.27	1.21	14.7

Notes. *n* = 109. ^aMean is based on 1-Never to 7-Every Time. ^bPercent representing “50% of the class period” to “every time.”

4- sometime, 50% of the time and 5 –frequently, 70% of the time). Stories not related to courses, on the average ($M = 2.49$) are used rarely (10%) to occasionally (30%). Five of the seven items addressing stories RELATED to course content had responses of 50% of the time or higher indicating students perceive stories to be used regularly.

Item seven: “Do you find stories helpful in learning materials?” had the highest mean ($m = 5.04$, $SD = 1.40$), with 83.5% of students believing stories helped them learn.

Eighty-one point seven percent of students ($m = 4.87$, $SD = 1.42$) felt that stories helped them feel more comfortable with their instructor. Item six asked: “If your instructor uses stories to help you understand the material,” 85.3% of students believed this to be true ($m = 4.86$, $SD = 1.18$).

Item eight asked if “stories help you feel more connected to your classmates,” and showed ($m = 4.62$, $SD = 1.43$) 78% of students perceived this to be true as students thought stories were useful in helping them connect in their classrooms with each other.

Item three measured the frequency with which students thought instructors “shared stories related to course content” ($m = 4.41$, $SD = 1.26$). 70% of students at SMC reported their teachers were not just using stories to help them learn, but that the stories were personal stories from the instructors’ lives. This high average of student responses helped us better understand the teaching strategies of SMC faculty and the student-faculty interaction.

The lowest number of responses came from factor two, which examined the use of stories unrelated to course content. Sixteen point five percent of students said their teachers shared stories unrelated to course content, ($m = 2.53$, $SD = 1.06$) and 14.7% of students reported themselves sharing stories unrelated to course content ($m = 2.27$, $SD = 1.21$).

Use of Stories and Student Engagement

The third research question: “To what extent is student engagement related to use of stories in the classroom?” Bivariate correlation and canonical correlation analysis were used to answer this question. Table 8 shows mean, standard deviation, and correlation coefficients between and among use of stories and student engagement variables. Use of stories related to courses has weak correlation, though statistically significant, with active and collaborative learning ($r = .31$), student faculty interaction ($r = .26$) and support for learners ($r = .27$). Student engagement benchmarks are not related to use of stories NOT related to courses. Use of stories related to courses is not correlated with use of stories not related to courses ($r = .13$).

Table 8

Means, Standard Deviations, and Correlation Coefficients

Variables	<i>M</i>	<i>SD</i>	Correlation					
			2	3	4	5	6	7
1. Stories related to course	4.36	1.40	.13	.31*	.08	.13	.26*	.27*
2. Stories not related	2.40	0.97		.03	-.03	-.11	.06	.05
3. Active & collab learning	7.93	21.79			.40*	.39*	.54*	.25*
4. Student effort	46.77	24.34				.49*	.41*	.33*
5. Academic challenge	60.18	23.47					.51*	.44*
6. Student-faculty interaction	60.00	22.14						
7. Support for learners	55.12	20.94						

Notes. * $p < .01$, $n = 109$.

Correlation among student engagement benchmarks range from weak ($r = .25$) between active/collaborative learning and support for learners to moderate ($r = .54$) between active/collaborative learning and student-faculty interaction.

To examine the relationship between student engagement and use of stories more comprehensively, canonical correlation analysis was conducted. The result of this analysis is shown on Table 9.

In Table 9, a canonical correlation analysis was done. This analysis determined the correlation between the two linear combinations of student engagement benchmarks and use of stories related and not related to courses. The first variate is being labeled as ‘the student engagement’ variate, and the second the ‘use of stories’ variate. Table 9 shows that the correlation between these two variates is the canonical correlation ($r = .39$). That is, .39 squared ($r^2 = .152$), suggesting that about 15% of the variance in student engagement variate can be explained by the use of stories variate.

The statistical significance of the canonical correlation was $p = .029$ (Wilks lambda = .83), $F(10,204) = 2.06$, $p = .029$). This suggests that canonical r of .39 is

Table 9

Canonical Correlation Analysis Result

Variables	Canonical Loadings	Standardized Canonical Coefficients
Student Engagement		
Active and collaborative learning	.79	.68
Student effort	.19	-.29
Academic challenge	.29	-.17
Student-faculty interaction	.68	.28
Support for learners	.69	.55
Use of Stories		
Stories related to course	.99	.98
Stories not related to course	.23	.11
Canonical correlation	.39	
Wilk's lambda	.83	
<i>df</i>	10,204	
<i>F</i>	2.06	
<i>P</i>	.029	

significantly different from 0. The level of significance of a canonical correlation is generally .05. Cut off loadings of .3 (absolute) were used for interpretation of these results (Tabachnick, & Fidell, 2001).

While most results showed a weak positive correlation, there were three benchmarks showing a positive correlation to the use of stories variate. Using this criterion, active/collaborative learning (.79), student-faculty interaction (.68) and support for students (.69) can be significantly explained by use of stories that are related to courses (.99). The standardized coefficients suggest that active/collaborative learning (.68) and support for learners (.55) are the two most influenced by use of stories related to courses.

Summary of Findings

The findings in Chapter IV examine associations to three research questions. Question one asked, what is the level of academic engagement among students at Southwestern Michigan College? The engagement of students was measured by 38 engagement items from the CCSSE survey that report important aspects of a student's experience. The five benchmarks measuring student engagement were:

- active and collaborative learning,
- student effort,
- academic challenge,
- student-faculty interaction, and
- support for learners.

Students in this sample, compared to national norm, are more engaged in active/collaborative learning, academic challenge, student faculty interaction and support for learners. As is displayed in Table 4, SMC students are less engaged than the national average on student effort.

Question two asked, to what extent are stories embedded into academic courses? The factor mean for stories related to courses is 4.36, indicating that overall, stories are imbedded in courses between 50% to 70% of the time (according to the scale, 4-sometime, 50% of the time and 5 –frequently, 70% of the time). Stories not related to courses, on the average ($M = 2.49$) are used rarely (10%) to occasionally (30%).

Question 3 asked: To what extent is student engagement related to use of stories in their courses? While most results showed a weak positive correlation, there were three benchmarks showing a positive correlation to the use of stories variate. Using this

criterion, active/collaborative learning (.79), student-faculty interaction (.68) and support for students (.69) can be significantly explained by use of stories that are related to courses (.99). Approximately 15% of the variance in student engagement can be explained by use of stories in the classroom.

CHAPTER 5

CONCLUSIONS AND IMPLICATIONS

This chapter will present the final discussion of the findings of the study. It is organized in the following sequence; purpose of the study, a review of relevant literature, methodology, results, discussion, conclusion, and will end with implications for future research.

Purpose

The purpose of this study was to examine the relationship between the use of narrative in the classroom and student engagement. Understanding effective strategies to increase classroom engagement is crucial for pedagogical success. Research questions sought to examine 1) What is the level of academic engagement among students at SMC? 2) To what extent are stories embedded into academic courses? 3) To what extent is student engagement related to use of stories in their courses?

A Brief Review of the Literature

In the past 10 years, researchers have identified a variety of engagement techniques that, when implemented by college instructors, led to an increase in classroom engagement (Bryson & Hand, 2007; Mearns et al., 2007; Reason, 2006). In their literature review, Scott and Dinham (2008) concluded that narratives were a useful tool for creating deep learning experiences, making them a powerful strategy for classroom

engagement. Harper and Quaye (2009) also observed that narrative positively affected classroom engagement. Additionally, Zepke and Leach (2010) concluded that teachers and teaching strategies were central to classroom engagement, which made the tools and strategies used to create that engagement highly important. Bryson and Hand (2007) also studied whether student engagement could be enhanced through active teaching strategies. These studies were consistent with the current research findings.

Very few studies have been conducted to measure the success of the integration of stories in teaching at community colleges. Most of the studies on engagement in higher education have reflected traditionally-aged university students (Fike & Fike, 2008). Though the data may draw relevance to all higher education students, there are statistical differences between traditional university students and community college students such as age, minority numbers, and open-door policies (2008). No studies have been conducted that apply specifically to the effects of the integration of stories in the classroom on student engagement at SMC.

There has been extensive research into engagement and its effects on retention (Harper & Quaye, 2009). A study conducted in 2007 suggested that when teachers were perceived by students as approachable and sensitive to student needs, students worked harder and were more willing to participate in class discussion (Mearns et al., 2007). Narrative is a strategy teacher's can use to make students feel more comfortable. In the current study (Figure 2), narrative used by the instructors that was related to course content showed a positive relationship to the benchmarks of active and collaborative learning, support for learners, and faculty-student interaction. The findings fit with the research of Mearns et al. (2007). Students reported they found stories to be helpful to

their learning, and it helped when their instructor used stories to help them understand the material.

In their literature review, Scott and Dinham (2008) concluded that narratives were a useful tool for creating deep learning experiences, making them a powerful strategy for classroom engagement. Harper & Quayle (2009) also observed that narrative positively affected classroom engagement. In the current study, students reported narratives made them feel more comfortable with their instructor, as well as with each other. Narratives had a positive linear correlation to benchmarks active and collaborative learning, student-faculty interaction, and support for learners.

Methodology

To address the research questions, the researcher used a secondary data from a non-experimental quantitative approach conducted by SMC to explore the correlations among narrative use and student engagement. This study used survey as the research design. The dominant strategy used by higher education institutions to measure engagement is the survey or questionnaire method, which can be quickly administered to a large pool of participants providing insights into strategy effectiveness (Chickering et al., 2006; Middaugh, 2009). According to Middaugh (2009), the survey is a systematic method of data collection. It is a tool for measuring attitudes and behaviors and allows the researcher to use these measurements in statistical analyses.

The target population of the study was SMC students. Three hundred sixty-five students at SMC were randomly drawn during spring 2016 to take the CCSSE survey. Community College Survey of Student Engagement is administered to students in randomly selected classes at each participating college. The required number of course

sections to be surveyed is determined by the total sample size needed to reduce sampling error and to ensure valid results. The CCSSE liaison at SMC wanted to reach at least 20% of the student population which was represented by the 356 students. Of these 356 sampled students, only 109 were able to be matched by the current researcher using student identification numbers because of gaps in the numerical coding of students on the CCSSE.

The two instruments used to collect data was CCSSE and the student survey of use of stories. First the researcher will address the CCSSE instrumentation. In Appendix B, the 38 questions of the 2016 CCSSE survey are listed. These items operationally define five student engagement benchmarks which are groups of conceptually-related survey items that examine practices of an institution as well as behaviors of students that promote student engagement. In the student survey to measure use of stories the instrumentation was as follows: Questions were measured on a seven-point Likert scale. The scale was measured by frequency of use with the following descriptions provided:

1. Never,
2. Rarely, in less than 10% of class periods
3. Occasionally, in about 30% of class periods
4. Sometimes, in about 50% of class periods
5. Frequently, in about 70% of the class periods
6. Usually, in about 90% of the class periods
7. Every time.

Research question 1 and 2 were addressed using descriptive statistics using mean, standard deviation and percentages were used to determine the levels of engagement

among participating SMC students. Levels of engagement for each of the five benchmark are assumed to be quantitative and, thus, using measures of central tendency (mean) and variation (standard deviation) are appropriate. Percentages were used to determine the proportion of students at different categories of responses, at or above the normed population. The analysis used to respond to question 2 was analyzed using a nine-item survey measuring use of stories. Questions were measured on a seven-point Likert scale.

The data for research question 3 were analyzed using canonical correlation, which allowed the researcher to provide useful suggestions back to SMC about whether the use of narrative as a teaching strategy could positively affect classroom engagement. Canonical correlation is an analysis most used when examining the associations between two sets of measures. The measures themselves are also correlated within sets (Sherry & Henson, 2005). Thompson (1991) said canonical correlation has an advantage over multiple regression in that canonical correlation analysis helps reduce the likelihood of type one errors.

Results

Question one asked, what is the level of academic engagement among students at SMC?

- A. Levels of engagement of SMC students in this study were higher than the national norm in active/collaborative learning, academic challenge, student faculty interaction, and support for learners.
- B. Southwestern Michigan College was lower than the national norm in student effort.

- C. Females appear to be more engaged than males in all five benchmarks, however these differences were not statistically significant and weak (effect sizes around .3 at best)
- D. Matched or no-matched between student gender and instructor gender did not influence levels of engagement.

Question two asked, to what extent are stories embedded into academic courses?

- A. The factor mean for stories related to courses is 4.36, indicating that overall, stories are imbedded in courses between 50% to 70% of the time (according to the scale, 4- sometime, 50% of the time and 5 –frequently, 70% of the time).
- B. Stories not related to courses, on the average ($M = 2.49$) are used rarely (10%) to occasionally (30%).

Question three asked, to what extent is student engagement related to use of stories in their courses? There is a significant relationship between the linear combination of student engagement benchmark and the linear combination of use of stories factors ($r = .39, p < .05$). Higher levels of student engagement in active/collaborative learning (.79), student-faculty interaction (.68) and support for learners (.69) are associated with higher use of stories related to courses (.99).

Discussion

Question 1: What is the level of engagement among students at SMC?

Southwestern Michigan College performed above the national mean on every benchmark except student effort. Active and collaborative learning measures items such as the frequency with which students do in class presentations and work with classmates outside of class. This would mean that SMC instructors are providing students with

opportunities to present the information they are learning, as well as projects that would require them to work together according to student responses. Bryson and Hand (2007) found that active practices in the classroom were important to student engagement. The Constructivist Schema of Learning theorizes that learning is the process of interaction with the world and that this interaction is an active process. Kolb (1984) theory of Experiential Learning reinforces the idea that storytelling is an active process that can be linked to deeper engagement and learning.

Cron (2012) explains that a well told story can act as a concrete experience for students. Faculty at SMC used stories in lectures approximately 50%-70% of the time or higher according to student perceptions. Active and collaborative learning (benchmark one) showed a weak positive relationship to the use of stories in the classroom. Alterio and McDrury (2004) indicate that the reflective observation stage in Kolb's theory is often the most challenging for students if there is not some type of experience that connects the student to the content. The Constructivist Schema of Learning reiterates this point. Item six of the use of stories survey asked: "Does your instructor use stories to help you understand the material," and 85.3% of students believed this to be true. Stories are an active process teachers can use to help students learn and the current study confirms that with benchmark one.

Increased successful academic performance was Bruner's (1986) conclusion in his discussion on incorporating stories in teaching. He found that teachers who used stories in lecture had better student success rates. On reviewing the findings of Fairclough in 1995, Hawkins (1997) concluded that, through a teacher's discourse, students are able to shape who they are, whom they think they can be, and eventually whom they will

become. Southwestern Michigan College faculty using stories 50%-70% of the time or more in their classroom could help explain why SMC students report higher levels of active and collaborative learning than the national average.

Benchmark three, academic challenge, measures items such as the frequency with which students have worked harder than they thought they would to meet an instructor's standards. There was no correlation to the use of stories variate and this benchmark, though SMC students did report higher levels of engagement in academic challenge than the national average. One item that helped measure academic challenge was "during the current academic year how much reading or writing have you done in this course?" Such questions may not show a positive relationship to stories as it deals with student challenge rather than student experience.

Benchmark four is student faculty interaction and measures the frequency with which SMC students use email to connect to their instructor, or approach an instructor to talk about career plans, or work with an instructor on activities other than coursework. Eighty-one point seven percent of students, on the use of stories survey, said that the stories instructors used in their classrooms helped them feel more comfortable with their instructors. Seventy percent of students at SMC reported their teachers were not just using stories to help them learn, but that the stories were personal stories from the instructors' lives. Bullough (2010) says that the draw humans feel toward one another come in their ability to communicate through gestures, body language, expressions and stories. Stories are an effective technique to enhance connection.

Narratives and stories can create shared, co-constructed realities and social contexts that influence their listeners and make them feel more connected. People are not

just influenced by the realities of other people; they are also influenced by the shared reality created through stories. Bryson and Hand (2007) indicate that teachers enthusiasm, and demonstrated interest in content, are critical to a student's engagement. Zak (2014) found that listening to stories released hormones like oxytocin in listeners. Oxytocin is a hormone often associated with care, connection, and empathy (2014). It was found that the more oxytocin the listeners released, the more empathic and connected listeners felt. Theoretically an instructor sharing stories should increase a student's perspective on how approachable that instructor seems. Benchmark four produced a weak positive relationship to the use of stories variate. Stories had a positive relationship to student faculty interaction.

Benchmark five measured support for learners. Items in this benchmark measured the frequency with which students reported that the college encouraged contact among students of a different background or provided support that allowed them to thrive. Seventy-eight percent of students responded on the use of stories survey that stories in their classrooms helped them feel more comfortable with their classmates. With stories being used 50%-70% of the time in classes at SMC, and research already finding that stories help co-construct reality, stories should influence students to be more open to students of different racial, social, or ethnic backgrounds as stories increase connection (Zak 2014). The climate that sharing stories in the classroom creates could also account for some of students feeling socially connected which was an item measured on benchmark five. Southwestern Michigan College had results above the national average on this benchmark. This benchmark also had a weak positive correlation to the use of stories variate.

Benchmark five also had an item measuring the financial support a student felt was provided at the college. Southwestern Michigan College being a community college means it is financially more cost effective than Universities. Financial aid advisors at SMC were specifically trained to deal with helping students from underprivileged backgrounds in attaining their education within three years of taking the CCSSE. These factors could influence the positive scores on benchmark five.

The only benchmark SMC scored lower than the national average on was student effort. This benchmark was measured by asking students the frequency with which they came to class without completing readings, whether they spent several hours on homework, or prepared multiple drafts of a paper etc. Community colleges have faced challenges on student effort for years. The latest findings of the CCSSE (2017) showed that on average community colleges score far lower than universities on student effort (NSSE, 2017). Because the circumstances of community college students are often difficult (financial stress, little support) it may be that faculty simply expect less from their students. Southwestern Michigan College needs to implement a plan to address the student effort benchmark, if they want to increase engagement.

No statistically significant relationship resulted in the current study when the gender of student matched the gender of the teacher (Table 6, Chapter 4). The researcher was interested in whether students with an instructor of the same gender would be more likely to be engaged than students of opposite gender match with instructors. These findings however did not produce any significant results.

The engagement of students was hypothesized to be higher if there was a gender match between student and teacher which was thought to eliminate social identity threat.

Social identity threat is the level of discomfort individuals feel when they fear their social identity puts them at risk for devaluation. Social identity threat has been proven (Joeckel, & Chesnes, 2009) to increase blood pressure. This increased sense of arousal can affect the individual negatively which would decrease engagement. In one study, they gave a math test to women and put one participant in a room with two other participants who were men. Women who took the test with two men performed worse on the test than the women in the same-sex environment. Butera and Levine (2009) also found that social identity stigmas can affect student performance and behavior. The researcher had hypothesized that social identity threat could take place if there was no match of teacher and student gender, but findings were unsupportive.

The intended hypothesis would have fit with the research of Thomas Dee who published on education performance and gender (2005). Dee found that there was a significant interaction between learning and gender. Dee studied nearly 25,000 eighth-graders giving academia the most comprehensive study on students in middle school. He found that boys learn more from men and girls learn more from women.

The results compiled by Dee were not replicated in the current study. While the means of engagement were higher in almost every benchmark for females than males, none of the results were significant. The literature on gender match in higher education has shown mixed results. Some studies find positive benefits of gender match, while others produce no significance. In the current study the means of engagement were higher when there was a gender match, but again the results were nonsignificant. The age of the current demographic being older than that which was studied by Dee (2005) could explain why gender match was not found to produce significant results. It could also be

that the courses being taken were community college general courses. Some of the higher education literature that found gender match to show higher levels of engagement, were in Science, Technology, Engineering, and Math fields, where women may already experience heightened levels of stigmatization due to their minority status in those programs. In addition, the effect size of the current study is weak and the sample population is also small.

Question 2: To what extent are stories embedded into academic courses?

According to the Clayman Institute for Gender Research at Stanford, stories are remembered up to 22 times more than facts alone. This is a strategy then for educators to help students retain information. If you provide students with information, and then couple that with a story, the students are not only more likely to learn but also to retain what they learned. When instructors use stories in the courses at SMC it produces the hormone called oxytocin (Zak, 2014), which is responsible for human connection, and teachers who use stories are connecting students to themselves which is important for student faculty interaction. By having students share their own stories, they are connecting the students to each other as stories connect teller and hearer.

The current study found that stories related to the course were imbedded in courses between 50% to 70% of the time. The findings in the current study echo the findings of researchers like Egan (1988) who felt that stories may connect students to real life experiences and listening to stories evokes student imagination. Stories that were not related to the courses, were used rarely (10%) to occasionally (30%). Item seven asked, “Do you find stories helpful in learning materials?” and had the highest mean ($m = 5.04$, $SD = 1.40$), with 83.5% of students believing stories helped them learn.

Eight-one point seven percent of students ($m = 4.87$, $SD = 1.42$) felt that stories helped them feel more comfortable with their instructor. Item six asked: “If your instructor uses stories to help you understand the material,” 85.3% of students believed this to be true ($m = 4.86$, $SD = 1.18$). These findings provide further support for Scott and Dinham (2008) who found that students reported narrative to aid in deep learning experiences, which again reflects the theoretical framework of The Constructivist Schema of Learning. The current study expanded past research to include community college students who had different demographic considerations than typical university students. When teachers used narratives that were related to course content, there was a significant correlation to the variant of student engagement for three of the five benchmarks.

The constructivist schema of learning model can be found in Figure 2 of Chapter 1. Mind, brain, and education science experts examine how the neurological processes in the brain, which happen through learning, shape behaviors of the person. They do not just examine how we learn, but also how we can “stimulate rich learning experiences” (Szurmak, 2013). Davidson (2003) argued that stories can help students experience learning in an active and new way and that stories increase learner comprehension. According to Scott and Dinham (2008), narratives are a great tool for creating deep learning experiences, making them a powerful strategy for classroom engagement. Bruner also discovered that learning could not be isolated from a social dimension, as learning takes place best when we can ask for feedback and deconstruct thoughts with others about what we are being stimulated by. Neuroscience has shown that brains learn best when facts are embedded, and new skills are made applicable and natural to practical

examples (Driscoll, 2005). Stories do this because they involve the listener in the actions of the story. The current study corroborated those findings as stories showed a positive relationship to student engagement.

These results fit with the CCSSE data that find student-faculty interaction to be an important benchmark of student engagement. Research by Kuh (2003) also suggested that student-faculty relationships were important to students experiencing collegial community. Authors have long argued that the student-teacher connection helps create a sense of belonging at an institution. Ccsse.org stated, in general, the more contact students have with faculty, the more likely they are to learn effectively and persist toward their academic goals. The current study found a weak positive correlation to the use of stories survey and student faculty interaction, with students consistently saying that the stories used by faculty helped them learn.

Question 3: To what extent is student engagement related to use of stories in their courses?

Student engagement particularly in active/collaborative learning, student-faculty interaction and support for learners' are associated with use of stories related to courses. Extensive research on engagement (Astin 1984, 1985; Chickering & Gamson, 1987; Kuh, 2003; Pace, 1982) has found that student engagement is positively tied to desired educational outcomes and retention. Engagement is a topic many institutions expend time and money to focus on because of the impact it has on classroom and student dynamics on campus. Engagement has been linked positively to successful higher education outcomes. Kuh (2003) found that students who engage in educationally-productive

activities develop habits that reach the student's mind and heart. Students at SMC were more engaged on four of the five engagement benchmarks than the national average.

Students in this sample, compared to national norm, are more engaged in active/collaborative learning, academic challenge, student faculty interaction and support for learners. As is displayed in Table 4, SMC students are less engaged than the national average on student effort. Pace's (1984) theory discussed how student effort is impacted by the opportunities that an institution gives its students and the extent to which students use the opportunities they are given. The more students are involved in the learning process through the use of educationally purposeful strategies, the more likely they will be to invest in their own learning (Tinto, 1997).

While most results showed a weak positive correlation, there were three benchmarks showing a positive correlation to the use of stories variate. Using this criterion, active/collaborative learning (.79), student-faculty interaction (.68) and support for students (.69) can be significantly explained by use of stories that are related to courses (.99). Kuh (2003) found that there is a positive correlation between student-faculty interactions and student satisfaction and that there is a positive relationship between student-faculty interaction and the amount of time students devote to educationally-purposeful activities. This study found that approximately 15% of the variance in student engagement can be explained by use of stories in the classroom.

Research has already demonstrated (Heath & Heath, 2007; Zak, 2014) that stories affected the listener both emotionally and intellectually. Stories used in course content had a positive correlation to the student engagement variant for three of the five benchmarks.

Conclusion

Cron (2012) said in her book, *Wired for Story*, that when the brain focuses its attention on something, it filters out all unnecessary information. Because of this, she believed the secret to storytelling was to make everything in the story a need-to-know basis. The current study found that using stories in the classroom did have a positive relationship to student engagement perhaps because students brains are signaled to pay attention to the storyteller and be less distracted by other influences.

Theoretical Implications

The conceptual framework for this study was developed by Merriam (2009) and provided the foundation and underlying structure for this study. This framework helped to identify the variables, the specific topic, and the relationships that existed between the variables and the topic. The constructivist schema of learning model can be found in Chapter 1 (Figure 2).

The model shows a learner experiences three elements: interaction, an ongoing (recursive) process, and change. Learning is the process of interaction with the world. The interaction is translated into an experience, and that experience leads to a lasting change in behavior. Szurmak (2013) described constructivist theories as emphasizing learning as a process of meaning construction and worldview synthesis through ongoing interaction with the world. Before neuroscience could demonstrate a connection between a change in behavior from learning and the creation of a lasting neurophysiological response, constructionist theorists had postulated that connection. Several researchers (Driscoll, 2005; Heath & Heath, 2007; Pinker, 1997) have demonstrated that learning and teaching change the brain.

For educators, teaching creates experiences where learners interact with information that, if internalized, changes their brains and responses. Storytelling is one such technique that can be used to engage the experience of learning better. The present study found a significant relationship between the use of stories variant and the student engagement variant for benchmarks 1, 3, and 5. Using a canonical correlation, Active/collaborative learning (.79), student-faculty interaction (.68) and support for students (.69) can be significantly explained by use of stories that are related to courses (.99). Correlation between the set of student engagement variables and the set of use of stories in the classroom was .39, indicating approximately 15% of the variance in student engagement could be explained by the use of stories in the classroom.

Whether the stories are shared by instructors, or encouraged by instructors to be shared by students, storytelling creates connections. It also had a positive linear relationship to the support for learner's benchmark, which is said to help students to feel a sense of belonging.

The Active and Collaborative Learning benchmark says that students learn more when they are actively involved in their education and have opportunities to apply what they learn in different settings. This benchmark had a significant correlation with the use of stories variant. The CCSSE denotes this benchmark as helping students gain valuable skills that will prepare them for the workplace and their personal lives. Instructors sharing stories can help influence these connections in students.

Implications for Policy and Practices

This study was significant to administrators at SMC experiencing a decrease in retention. Engagement in the classroom is one tool to increase retention. The study

showed that stories are linked to student engagement and therefore should be used in the classroom. The first implication of the study was to add to the relevant literature on stories and engagement. There was a significant relationship between faculty use of stories and student engagement.

Due to the results of this study, faculty at SMC should be encouraged to use stories in their classrooms in an effort to help students feel more connected to the college. The present study showed that when instructors had students share stories, students reported feeling more connected to their instructors and to each other. It is important for institutions to seek ways to make students feel more comfortable and connected to the faculty members who are working with them. Student-faculty interaction has a positive relationship to retention and engagement.

New data released by the National Center for Education Statistics project that the number of high school graduates will only increase by 2% by 2022 (Adams, 2014). According to Adams (2014), between 1997 and 2011, the number of first-time first-year students grew by 39%. However, again by 2022, that growth will slow to 16%. This will have a direct impact on colleges, as they will experience slower growth in enrollment for the next 10 years. Storytelling is one possible approach to improve the prospects of individual institutions as it involves increasing student engagement. Extensive research supports the contention that active classroom engagement results in both higher retention and graduation rates (Harper & Quayle 2009), perhaps because as engagement increases, the perceived value of the institution increases, decreasing the likelihood of a student's need to transfer.

A third implication of this study is that stories are great tools for learning. Students reported stories helped them learn, and stories helped them understand the course material better. Kuh et al. (2006) identified a correlation between deep learning experiences and the promotion of student engagement. What might be an example of a deep learning experience? In their literature review, Scott and Dinham (2008) concluded that narratives were a useful tool for creating deep learning experiences, making them a powerful strategy for classroom engagement. Harper & Quaye (2009) also observed that narrative positively affected classroom engagement. Additionally, Zepke and Leach (2010) concluded that teachers and teaching strategies were central to classroom engagement, which makes the tools and strategies used to create that engagement highly important.

Lastly, Murphy (2008) defined pedagogy, a word derived from the Greek *paidagogia*, as “interactions between teachers, students, the learning environment, and the learning tasks” (p. 35). Quality teaching is contingent on a meaningful interaction among the teacher, the learner, content, pedagogy, and environmental factors. The positive interplay between these factors brings out the best in a teacher, hence, the best in the learner too. Historically, according to Mishra and Koehler (2006), it was the knowledge of content that was thought to make the best teacher. However, Mishra and Koehler (2006) showed that quality teaching is dependent on the way all of the variables interact with one another. Prior to Mishra and Koehler, Entwistle (2003) published his theory stating that one must include both content and pedagogy to achieve a learning environment. In addition, more recently, Zepke found, strong learning is correlated to teachers and learners handling content in pedagogically suitable ways (2013).

Egan (1988) asserted that stories are an effective educational strategy to improve instruction and pedagogy. To be an effective teacher, Bollough (2010) wrote that a teacher should be able to inspire students to deepen their understanding of content and push them to transcend the self. Narratives are one such strategy a teacher can employ to improve pedagogy which has been historically understood to strengthen teaching practices.

Implications for Future Research

This study focused strictly on identifying whether a relationship existed between stories and student engagement. While this study attempted to enhance the literature on stories and engagement by expanding the content of literature focused on community colleges, there are still many additional areas of future research to explore.

First, a qualitative study examining the relationship between stories and learning at a community college could provide a more in-depth analysis of what types of stories are being told, and how students experience them. Interviews, focus groups, and video assessments could all provide deeper analysis into how students interact with stories in the classroom. This would certainly be beneficial information for faculty as they better understand how to use stories in meaningful ways.

While stories are a possible strategy that could be implemented in the classroom, a future study would be interested in whether storytellers need to be intentional with how they use them. If a storyteller does not provide points of reference during the story, will the listeners have any way of knowing which information mattered? According to Cron (2012), when the brain focuses its attention on something, it filters out all unnecessary information. Stories are designed to answer some sort of single overarching question. We

feel this instinctively as story listeners, so we try to pay attention to every word, line, and all the imagery. If a storyteller never gets to the overarching point of the story, the listener may have a negative reaction to the storyteller; thus, the researcher is interested in a follow-up study on what types of stories are being told, and whether stories have to be related to course content.

This exemplifies the saying that storytelling is an art. The art of storytelling is a tool that can enhance teaching effectiveness and classroom engagement. Now that we know that there is a significant relationship between stories and engagement, further research should explore the best way to tell a story in a classroom setting to perfect the art and use it in meaningful, purposeful ways.

Another suggestion for future research would be to replicate this study while adding a longitudinal approach. It would be beneficial to see how many students in our highly engaged category in response to research question one, were retained from spring of 2016 to fall of 2016. A study examining the retention rates of students who were marked as highly engaged would provide even stronger data for SMC on the influence stories can have on engagement and retention.

Third, this study has the possibility of initiating future research questions. The researcher would have liked to analyze the associations between stories and race, which the present study could not address because of the racially homogenous sample of the population which was a delimitation of the current study. It would be interesting to find if students perceived stories better when shared from a member of the same racial group. Also, do members of certain races find stories more engaging than members of other races?

A future study using data from SMC could look at whether stories might be more useful within certain fields of study. The study could be replicated at SMC, with the data categorized by math, English, science, art, etc. This would provide useful information for SMC regarding whether the association between stories and engagement varied as a function of discipline such as math and science; these are courses students are most likely to fail or drop at a community college.

Fifth, the study could be replicated to determine if there was any association between using stories to learn the material, and grade point average. Did students who perceived instructors to do a high level of storytelling receive higher grades than students with instructors perceived to use low levels of storytelling?

In this study, storytelling was a significant component (15%) of student engagement. That said, this study still can't explain 85% of the variance in student engagement. Student effort was the lowest benchmark to be affected by stories and the lowest engagement benchmark for SMC. Student effort is a benchmark of engagement that needs to be addressed in future studies. Faculty should also pay attention to the student effort benchmark in their own coursework as this was the lowest mean represented on the student engagement survey.

APPENDIX A
USE OF STORIES SURVEY

A) The nine-question variable measuring narrative use.

1. In this course, how often do you share personal stories from your life that are related to course content/topics?
2. In this course, how often do you share personal stories from your life that are NOT related to course content/topics?
3. In this course, how often does your instructor share personal stories from his or her life that are related to course content/topics?
4. In this course, how often does your instructor share personal stories from his or her life that are NOT related to course content/topics?
5. In this course, how often does the instructor encourage students to share stories from their lives that are either related or unrelated to the course?
6. How often does the instructor use stories to help you understand the material?
7. How often do you find stories in this classroom helpful in your learning of material?
8. How often do stories, either related or unrelated to the content, help you feel more comfortable with your classmates?
9. How often does sharing stories, either related or unrelated to the content, help you feel more comfortable with your instructor?

Items were scaled using a 7 point likert scale from Never to Every time.

Three additional open-ended questions will ask:

1. What grade do you expect to attain in this course?
2. Do you believe you are doing well in this course?
3. What is your current grade in this course?

APPENDIX B

COMMUNITY COLLEGE SURVEY OF

STUDENT ENGAGEMENT

1. Did you begin college at this college or elsewhere?	☐ Started here	☐ Started elsewhere
2. Thinking about this current academic term, how would you characterize your enrollment at this college?	☐ Full-time	☐ Less than full-time
3. Have you taken this survey in another class this term?	☐ Yes	☐ No

4. In your experiences at this college during the current school year, about how often have you done each of the following?	Very often	Often	Sometimes	Never
a. Asked questions in class or contributed to class discussions	☐	☐	☐	☐
b. Made a class presentation	☐	☐	☐	☐
c. Prepared two or more drafts of a paper or assignment before turning it in	☐	☐	☐	☐
d. Worked on a paper or project that required integrating ideas or information from various sources	☐	☐	☐	☐
e. Come to class without completing readings or assignments	☐	☐	☐	☐
f. Worked with other students on projects during class	☐	☐	☐	☐
g. Worked with classmates outside of class to prepare class assignments	☐	☐	☐	☐
h. Tutored or taught other students (paid or voluntary)	☐	☐	☐	☐
i. Participated in a community-based project as a part of a regular course	☐	☐	☐	☐
j. Used the Internet or instant messaging to work on an assignment	☐	☐	☐	☐
k. Used e-mail to communicate with an instructor	☐	☐	☐	☐
l. Discussed grades or assignments with an instructor	☐	☐	☐	☐
m. Talked about career plans with an instructor or advisor	☐	☐	☐	☐
n. Discussed ideas from your readings or classes with instructors outside of class	☐	☐	☐	☐
o. Received prompt feedback (written or oral) from instructors on your performance	☐	☐	☐	☐
p. Worked harder than you thought you could to meet an instructor's standards or expectations	☐	☐	☐	☐
q. Worked with instructors on activities other than coursework	☐	☐	☐	☐
r. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	☐	☐	☐	☐
s. Had serious conversations with students of a different race or ethnicity other than your own	☐	☐	☐	☐
t. Had serious conversations with students who differ from you in terms of their religious beliefs, political opinions, or personal values	☐	☐	☐	☐
u. Skipped class	☐	☐	☐	☐

5. During the current school year, how much has your coursework at <u>this college</u> emphasized the following mental activities?	Very much	Quite a bit	Some	Very little
a. Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	☐	☐	☐	☐
b. Analyzing the basic elements of an idea, experience, or theory	☐	☐	☐	☐
c. Synthesizing and organizing ideas, information, or experiences in new ways	☐	☐	☐	☐
d. Making judgments about the value or soundness of information, arguments, or methods	☐	☐	☐	☐
e. Applying theories or concepts to practical problems or in new situations	☐	☐	☐	☐
f. Using information you have read or heard to perform a new skill	☐	☐	☐	☐

PLEASE DO NOT MARK IN THIS AREA

[illegible]

SERIAL #

6. During the current school year, about how much reading and writing have you done at this college?

	None	1 to 4	5 to 10	11 to 20	More than 20
a. Number of assigned textbooks, manuals, books, or book-length packs of course readings	☐	☐	☐	☐	☐
b. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment	☐	☐	☐	☐	☐
c. Number of written papers or reports of any length	☐	☐	☐	☐	☐

7. Mark the response that best represents the extent to which your examinations during the current school year have challenged you to do your best work at this college.

Extremely challenging ⑦ ⑥ ⑤ ④ ③ ② ① Extremely easy

8. Which of the following have you done, are you doing, or do you plan to do while attending this college?

	I have done	I plan to do	I have not done nor plan to do
a. Internship, field experience, co-op experience, or clinical assignment	☐	☐	☐
b. English as a second language course	☐	☐	☐
c. Developmental/remedial reading course	☐	☐	☐
d. Developmental/remedial writing course	☐	☐	☐
e. Developmental/remedial math course	☐	☐	☐
f. Study skills course	☐	☐	☐
g. Honors course	☐	☐	☐
h. College orientation program or course	☐	☐	☐
i. Organized learning communities (linked courses/study groups led by faculty or counselors)	☐	☐	☐

9. How much does this college emphasize each of the following?

	Very much	Quite a bit	Some	Very little
a. Encouraging you to spend significant amounts of time studying	☐	☐	☐	☐
b. Providing the support you need to help you succeed at this college	☐	☐	☐	☐
c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds	☐	☐	☐	☐
d. Helping you cope with your non-academic responsibilities (work, family, etc.)	☐	☐	☐	☐
e. Providing the support you need to thrive socially	☐	☐	☐	☐
f. Providing the financial support you need to afford your education	☐	☐	☐	☐
g. Using computers in academic work	☐	☐	☐	☐

10. About how many hours do you spend in a typical 7-day week doing each of the following?

	None	1 - 5	6 - 10	11 - 20	21 - 30	More than 30
a. Preparing for class (studying, reading, writing, rehearsing, doing homework, or other activities related to your program)	☐	☐	☐	☐	☐	☐
b. Working for pay	☐	☐	☐	☐	☐	☐
c. Participating in college-sponsored activities (organizations, campus publications, student government, intercollegiate or intramural sports, etc.)	☐	☐	☐	☐	☐	☐
d. Providing care for dependents living with you (parents, children, spouse, etc.)	☐	☐	☐	☐	☐	☐
e. Commuting to and from classes	☐	☐	☐	☐	☐	☐

11. Mark the number that best represents the quality of your relationships with people at this college.

Your relationship with:

a. Other Students

Friendly, supportive, sense of belonging 7 6 5 4 3 2 1 Unfriendly, unsupportive, sense of alienation

b. Instructors

Available, helpful, sympathetic 7 6 5 4 3 2 1 Unavailable, unhelpful, unsympathetic

c. Administrative Personnel & Offices

Helpful, considerate, flexible 7 6 5 4 3 2 1 Unhelpful, inconsiderate, rigid

12. How much has YOUR EXPERIENCE AT THIS COLLEGE contributed to your knowledge, skills, and personal development in the following areas?

	Very much	Quite a bit	Some	Very little
a. Acquiring a broad general education	☐	☐	☐	☐
b. Acquiring job or work-related knowledge and skills	☐	☐	☐	☐
c. Writing clearly and effectively	☐	☐	☐	☐
d. Speaking clearly and effectively	☐	☐	☐	☐
e. Thinking critically and analytically	☐	☐	☐	☐
f. Solving numerical problems	☐	☐	☐	☐
g. Using computing and information technology	☐	☐	☐	☐
h. Working effectively with others	☐	☐	☐	☐
i. Learning effectively on your own	☐	☐	☐	☐
j. Understanding yourself	☐	☐	☐	☐
k. Understanding people of other racial and ethnic backgrounds	☐	☐	☐	☐
l. Developing a personal code of values and ethics	☐	☐	☐	☐
m. Contributing to the welfare of your community	☐	☐	☐	☐
n. Developing clearer career goals	☐	☐	☐	☐
o. Gaining information about career opportunities	☐	☐	☐	☐

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13. This section has three parts. Please answer all three sections, indicating (1) HOW OFTEN you use the following services, (2) HOW SATISFIED you are with the services, and (3) HOW IMPORTANT the services are to you AT THIS COLLEGE.

[illegible]

14. How likely is it that the following issues would cause you to withdraw from class or from this college? (Please respond to each item)

How likely is it that the following issues would cause you to withdraw from class or from <u>this college</u> ? (Please respond to each item)	Very likely	Likely	Somewhat likely	Not likely
a. Working full-time	☐	☐	☐	☐
b. Caring for dependents	☐	☐	☐	☐
c. Academically unprepared	☐	☐	☐	☐
d. Lack of finances	☐	☐	☐	☐
e. Transfer to a 4-year college or university	☐	☐	☐	☐

15. How supportive are your friends of your attending this college?

☐ Extremely ☐ Somewhat
☐ Quite a bit ☐ Not very

16. How supportive is your immediate family of your attending this college?

☐ Extremely ☐ Somewhat
☐ Quite a bit ☐ Not very

17. Indicate which of the following are your reasons/goals for attending this college. (Please respond to each item)

Indicate which of the following are your reasons/goals for attending <u>this</u> college. (Please respond to each item)	Primary goal	Secondary goal	Not a goal
a. Complete a certificate program	☐	☐	☐
b. Obtain an associate degree	☐	☐	☐
c. Transfer to a 4-year college or university	☐	☐	☐
d. Obtain or update job-related skills	☐	☐	☐
e. Self-improvement/personal enjoyment	☐	☐	☐
f. Change careers	☐	☐	☐

○○○○○○○○○○○○○○○○○○○○

18. Indicate which of the following are sources you use to pay your tuition at this college? (*Please respond to each item*)

Major source

Minor source

Not a source

a. My own income/savings

b. Parent or spouse/significant other's income/savings

c. Employer contributions

d. Grants and scholarships

0

Q

e. Student loans (bank, etc.)

f. Public assistance

SAMPLE

19. Since high school, which of the following types of schools have you attended other than the one you are now attending? (Please mark all that apply)

- ☐ Proprietary (private) school or training program
☐ Public vocational-technical school
☐ Another community or technical college
☐ 4-year college or university
☐ None

SAMPLE

20. When do you plan to take classes at this college again?

- ☐ I will accomplish my goal(s) during this term and will not be returning
☐ I have no current plan to return
☐ Within the next 12 months
☐ Uncertain

SAMPLE

21. At this college, in what range is your overall college grade average?

- ☐ A
☐ A- to B+
☐ B
☐ B- to C+
☐ C
☐ C- or lower
☐ Do not have a GPA at this school
☐ Pass/fail classes only

22. When do you most frequently take classes at this college? (Mark one only)

- ☐ Day classes (morning or afternoon)
- ☐ Evening classes
- ☐ Weekend classes

23. How many TOTAL credit hours have you earned at this college, not counting the courses you are currently taking this term?

- ☐ None
☐ 1-14 credits
☐ 15-29 credits
☐ 30-44 credits
☐ 45-60 credits
☐ Over 60 credits

24. At what other types of institutions are you taking classes this term? (Please mark all that apply)

- ☐ None
- ☐ High school
- ☐ Vocational/technical school
- ☐ Another community or technical college
- ☐ 4-year college/university
- ☐ Other

25. How many classes are you *presently* taking at OTHER institutions?

- ☐ None
- ☐ 1 class
- ☐ 2 classes
- ☐ 3 classes
- ☐ 4 classes or more

26. Would you recommend this college to a friend or family member?

- ☐ Yes
- ☐ No

27. How would you evaluate your entire educational experience at this college?

- ☐ Excellent
- ☐ Good
- ☐ Fair
- ☐ Poor

28. Do you have children who live with you?

- ☐ Yes
- ☐ No

29. Mark your age group.

- ☐ Under 18
- ☐ 18 to 19
- ☐ 20 to 21
- ☐ 22 to 24
- ☐ 25 to 29
- ☐ 30 to 39
- ☐ 40 to 49
- ☐ 50 to 64
- ☐ 65+

30. Your sex:

- ☐ Male
- ☐ Female

31. Are you married?

- ☐ Yes
- ☐ No

32. Is English your native (first) language?

- ☐ Yes
- ☐ No

33. Are you an international student or foreign national?

☐ Yes ☐ No

34. What is your racial identification? (Mark only one)

- ☐ American Indian or other Native American
- ☐ Asian, Asian American or Pacific Islander
- ☐ Native Hawaiian
- ☐ Black or African American, Non-Hispanic
- ☐ White, Non-Hispanic
- ☐ Hispanic, Latino, Spanish
- ☐ Other

35. What is the highest academic credential you have earned?

- ☐ None
- ☐ High school diploma or GED
- ☐ Vocational/technical certificate
- ☐ Associate degree
- ☐ Bachelor's degree
- ☐ Master's/doctoral/professional degree

36. What is the highest level of education obtained by your:

	Father	Mother
a. Not a high school graduate	☐	☐
b. High school diploma or GED	☐	☐
c. Some college, did not complete degree	☐	☐
d. Associate degree	☐	☐
e. Bachelor's degree	☐	☐
f. Master's degree/1st professional	☐	☐
g. Doctorate degree	☐	☐
h. Unknown	☐	☐

37. Using the list provided, please fill in the bubbles that correspond to the code indicating your program or major. Using the first column, indicate the first number in the program code, using the second column, indicate the second number in the program code.

0	0
1	1
2	2
3	3
4	
5	
6	
7	
8	
9	

APPENDIX C

CCSSE INSTRUCTIONS

When creating your Course Master Data File (CMDf), please follow the guidelines below:

1. Each course should be listed as a single row of data. Include only the following course types in the file:
2. All courses eligible for college and/or institutional credit (i.e., eligible for financial aid)
3. Freshman and sophomore-level courses (at colleges offering baccalaureate degrees) Include the following course variables as column headers (*required variables, ⁺if available):

— —

4.

- campus location (camploc)*
- start time (stime)*
- end time (etime)*
- start date (sdate)*
- end date (edate)*
- section number (secno)*
- course number (courseno)*
- course name (courname)* Exclude the following courses from the le:
- building (bldg)* • room (room)* • meet days (meetdays)* • actual enrollment (actenrol)* • instructor first name (instrfname)⁺ • instructor last name (instrlname)⁺ • department (depart)⁺ • instructor e-mail (email)⁺; required for *CCFSSE* participants

-
- Courses that do not count toward degree or institutional credit
 - Lowest-level ESL courses
 - Dual-enrollment courses offered exclusively to high school students
 - Courses offered to incarcerated populations
 - Distance learning courses (e.g., online-only courses)
 - Practicums, internships, clinicals, and co-ops
 - Lab sections associated with a lecture (when both enroll the same group of students)
 - Individual instruction and independent study
 - Courses without a regular meeting time and location (i.e., self-paced, online, and some hybrid courses)
 - Multiple cross-listings of the same course

5. Special cases:

- Cohort or learning community courses: include only one instance of each cohort or learning community course to avoid having the same group of students sampled multiple times
- Cross-listed or team-taught courses: list as a single row of data with enrollments summed unless you are participating in *CCFSSE*; in this case contact your liaison.
- Courses with different meeting times on different days: list only one meeting time and day
- Developmental courses: include if they are eligible for financial aid
- ITV courses: include all sections of the same course as one listing with enrollments summed, but only if survey administrators can be at all locations at same time and date for administration
- Late- or second-start courses: include if they meet during the survey administration window

APPENDIX D

GENERAL QUESTIONS

What is CCSSE?

CCSSE is the Community College Survey of Student Engagement and is an initiative of the Center for Community College Student Engagement, which is a part the Program in Higher Education Leadership at The University of Texas at Austin. CCSSE is a survey developed to study community and technical college student experiences. The survey is designed to help us learn what your views are on the quality of the educational programs and services you receive. More can be learned about CCSSE by visiting www.ccsse.org.

Why are you surveying me?

Classes are chosen to be surveyed through a random selection process. You happen to be in one of the classes that were randomly selected to be surveyed.

What if I have already participated?

If this happens, you may choose not to take the survey again. However, we ask that you remain in the classroom during the administration time.

Will my college see my responses?

This institution will receive a data file containing all information provided by students completing the survey. So, if you provide identifying information, such as your student ID, then the college would technically have the ability to examine responses at the individual level. However, there is no intention to examine individual responses, and the reason for requesting student identifiers is to enable the college to link the data from this survey to other institutional research initiatives.

How may my college use the data?

Data may be shared with faculty, staff, administrators, and student leaders. College committees will use the data in their reports as they work on future planning and to inform initiatives. The information may also be used in reports to external authorities such as community college boards, accrediting agencies, and the general public. Identifying what students do in and out of the classroom and knowing students' goals and understanding their external responsibilities can help the college create an environment that can enhance student learning, retention, and success.

Are you surveying students at other colleges?

Yes, colleges from all over the country participate in this survey. Other participating colleges are listed at <http://www.ccsse.org/aboutccsse/colleges.cfm>.

When will the survey results be released?

The results will be released in July following the survey administration.

Questions about Specific Items

Item 8:

Response categories for Item 8 should be considered mutually exclusive. While it is possible you could both “I have done” and “I plan to do” some of these course, our real interest is in whether you have already done them at least once. If you have to take multiple developmental math classes (e.g., have taken one and still need to do another), our main concern is whether or not you have at least started the process. If you have started the process, please mark “I have done.” Likewise, if you are currently enrolled in a particular class (e.g., developmental, study skills), please mark “I have done” as the response. (Note: Developmental classes are preparatory or remedial classes that help a student develop skills for college-level classes. Your institution may also refer to them as Basic Skills or College Prep classes.)

Item 18:

In the following scenarios, please mark the corresponding funding source:

GI Bill funds - “Grants and scholarships”

Drawing from an interest-bearing account that you have paid into (military or otherwise) - “My own income/savings”

Drawing from an account paid into by your parents or significant other (military or otherwise) - “Parent or spouse/significant other’s income/savings”

Dual enrollment high school students - “Grants and scholarships”

Worker retraining - “Grants and scholarships”

Item 28: If you live with any children (children living in the same household), whether they are your own children or the children of others, please mark “Yes.”

Item 36:

Please mark only one response, indicating the highest level of education for each parent. For example, if your father completed a GED and your mother completed a GED and some college, mark “High school diploma or GED” under the “Father” category, and “Some college, did not complete degree” under the “Mother” category.

Item 38: As student identifiers are unique to each student, having identifier information may help your college connect student engagement data with student outcome data or other research being conducted at the institution. However, the college will be looking at survey data in the aggregate, not at any individual student’s responses specifically. Please note that this item is optional, and while we encourage you to include your student ID, inclusion is entirely voluntary.

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CURRICULUM VITA

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Objective

To continue to work in higher education as a Professor in the field of Communications. I work to implement creative, thought-provoking content that raises student engagement and nurtures student success. Communication strategies provide students with skills that will change their lives. I hope to empower students through knowledge.

Experience

Assistant Professor, Andrews University, Berrien Springs, MI

2017-Present

- Manage 4 courses in communication theory as well as graduate coursework

Program Director-Speech Courses, Southwestern Michigan College, Dowagiac, MI

2010–2017

- Taught over 100 students every semester
- Program director of curriculum for Communications Speech Department
- Instructor of five classes in the Communications Department including Intro to Mass Media, Writing for Mass Media, Interpersonal Communication, & Public Speaking
- Hold HLC certification requirements to teach Introduction to Psychology
- Responsible for finding creative ways to teach courses to a varied demographic of students
- Creator of syllabus and grading rubrics

Adjunct Assistant Professor, Purdue Tech University, South Bend IN

2016–2017

- Responsible for teaching Small Group Communications. Developed course description, selected textbook, and created curriculum

Adjunct Assistant Professor, Indiana University, South Bend IN

2017

- Responsible for teaching Public Speaking. Guide 28 students through presentation techniques

Adjunct Assistant Professor, Ferris State University, Big Rapids MI

2012–2017

- Lecturer of Effective Presentations, a business communications course. Created course description, selected textbook, and created curriculum

Freelance Writer, Berrien Springs, MI

2006–Present

- Host a blog that generates 40k monthly site hits with co-blogger Mrs. America
- Monthly columnist for *The Haystack* an online magazine targeting young adults
- Weekly writer for *Christian Woman Magazine* an international magazine serving the UK, US, New Zealand, and Australia
- Weekly writer for *Faithfully Magazine* geared toward millennials
- Author of five nonfiction books published by *Review & Herald & Pacific Press*
- Regular contributor to *Thought Catalog*, a digital Magazine with 1 million subscribers

Reporter and Announcer, Midwest Family Broadcasting, Benton Harbor, MI

2004–2009

- Writer of radio news copy for seven radio stations, covering eight counties
- Writer of radio copy for commercials and advertising for the largest radio station in Southwest Michigan
- Voiceover talent for advertising
- Hosted a weekend radio program for 97.5 Y Country
- Promoted to announcer for 98.3, *The Coast*, after one year on country station

Education

Andrews University, Berrien Springs, MI

2005–Present

- PhD ABD status in Higher Education with a cognate in Communication at Andrews University. Anticipated graduation: August 2017
- MA in Interdisciplinary Communications, graduated Summer 2011
- BA with a double major in Communication and Journalism Programs, graduated December 2008

Achievements

- Contracted to speak across the country by churches, universities, colleges, schools, and women's leadership events, providing inspirational messages centered on self-esteem, Communication, and Christianity
- Author of five books, two of which sold more than 5000 copies
- Publishing rights for *Hook Line and Sinker* purchased by *Brazil Publishing House*, translated into Portuguese. *The God Myth and Other Lies* translated into Polish.
- Third book, *How to Feed the Mediavore*, a devotional on the effects of digital media and communication on young adults' spirituality, sold nearly 5000 copies in the first six months

Interests

Writing, reading, running, and volunteer work holding monthly meetings at *The Center for the Homeless* South Bend chapter.