DRAMA APPLIED TO CONTENT-BASED INSTRUCTION IN ELEMENTARY EDUCATION

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DRAMA APPLIED TO CONTENT-BASED INSTRUCTION

IN ELEMENTARY EDUCATION

By

AMPARO ROCIO MUHS

Hispanic History, Evergreen State College, Olympia, Washington, 1995
Elementary Education, National University, San Diego, California, 2001

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Approved by:

Scott Whittenburg, Dean of The Graduate School
Graduate School

Jillian Campana, Chair
School of Theatre and Dance

James Randall
Director, School of Music

Brian Gregoire
School of Theatre and Dance

Judy Novobielski
Director of Special Education North Idaho Region
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ABSTRACT

Muhs, Rocio, M.A., Summer 2020

Integrated Arts and Education

DRAMA APPLIED TO CONTENT-BASED INSTRUCTION IN ELEMENTARY EDUCATION

Chairperson: Jillian Campana
Co-Chairperson: James Randall
Committee Member: Brian Gregoire, Judy Novobielski

Growing public interest in bilingual education has prompted many school districts to offer dual language models. Unaddressed challenges inherent in dual language immersion programs can compromise the quality of implementation, thus affecting student achievement and ultimately program sustainability. This study investigates how the integration of dramatic arts into core subject instruction in Spanish improves student learning and motivation among first grade second-language learners. Based on the existing challenges confronting a Dual Language Immersion Program in Western Montana, this study asks: What is the relationship between students’ attitudes about learning in a second language and the teacher’s pedagogical practices? In this context, the effects of teacher self-efficacy on student engagement and learning are analyzed to define a pathway to a teaching approach that explores curricular connections with arts integration. Structured observations during lessons were conducted to evaluate the study’s 19 participants, and a posttest measured their newly gained content-knowledge and growth in conceptual understanding. The results indicate that students developed a higher understanding of intended learning targets while acquiring essential Spanish language skills when drama-based strategies were implemented to teach science content.
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Chapter One, Introduction

Federal and state offices of education measure public school districts’ academic performance based on their students’ test scores in reading and math. The Media often informs the public about local school standings and “typical headlines focus on low standardized test scores, the dismay over dropout rates, and the disapproval of teacher and administrative educational practices” (Clements, 2013, p. 3). Doing so creates a system of accountability requiring that educators focus their instruction on those core subjects on which their students’ progress will be measured and tested.

To comply with federal and state mandates, many educators default to teaching practices that are skill-driven, repetitive and teacher-directed in hopes their students will perform well on standardized tests. This situation compromises the effectiveness of the instruction and “although student achievement depends on teacher coverage of critical content, student learning depends substantially on how instruction is delivered and the degree of student attention and participation in learning activities.” (Lekwa et al., 2019, p. 2). Therefore, student engagement significantly decreases in learning environments in which students are the passive recipients of information. Additionally, the accountability foisted on educators urges them to center curricula in the basic subjects of literacy and math while deemphasizing the teaching of other subject areas such as social studies, science and the arts.

With the need to successfully prepare students for the twenty-first century, many school districts are implementing new programs that are flexible, allowing transdisciplinary instruction that motivates students to be more engaged in their learning experience. Unfortunately, some districts fail to understand that flexibility and motivation are inherent factors in creative content-rich curriculums and well-trained teachers.
Dual Language Immersion Schools are touted as a means for school districts to deliver twenty-first century educational skills and to provide their students with high value world language learning opportunities. As Dual Language Immersion programs (DLI) gain popularity among community members, educators struggle to teach core subject curricula to second language learners without adequate teacher training. Thus, educators rely on traditional pedagogical approaches that are highly teacher-centered. The current paradigm minimizes second-language students’ engagement therefore compromising their academic and social achievement.

Most of my professional experience as an educator has centered on bilingual education. Multiple opportunities have afforded me work in public and private schools implementing diverse approaches to instruction. These opportunities have provided me with the capability and awareness to understand how effective immersion and dual language programs function. My experience also led me to design the first dual language immersion program in a public elementary school in the State of Montana. The vision and mission on which this program was founded followed a successful model used in another state. Many variables, including district administrative personnel changes and board members’ opinions resulted in a continual transgression from the original vision, mission and guiding principles on which this DLI program was founded. These factors, along with insufficient allocation of time to plan and develop the DLI’s framework, have led to problems that now prevent the program from being as successful as it could otherwise be at all grade levels.

Increasing interest in the integration of art forms into the instruction of core academic subjects inspired me to seek my master’s degree in this field. The knowledge I have gained during my studies at the University of Montana’s Creative Pulse program and my passion and
experience in the dramatic arts, urged me to focus my master’s project on the problems that threaten the integrity of my school’s dual language program. I started investigating research-based, empirical studies related to the integration of drama methodologies into core curricula as well as in second language instruction. The unique model of teaching core academic subjects such as math and science in a second language through drama resulted in very limited availability of case studies. Therefore, I recognized this research deficit and initiated an inquiry into the effectiveness of drama-based instruction in teaching content-based curriculum.

**Statement of the Problem**

The challenges present in the DLI program described in this study are related to three important elements: core subject learning through a second language, students’ motivation and students’ self-efficacy.

These three identified elements are interconnected. As new students enter the DLI program in upper elementary grades with no prior exposure to the target language, the learning of core subjects in Spanish often becomes too challenging for them. “Self-efficacy theory posits that students who believe themselves to be capable are more likely to be motivated; those who believe themselves incapable will not be motivated” (Seifert et al., 2015, p. 144). Consequently, low self-esteem, lack of motivation and low academic performance leads to behavioral issues and to less than optimal learning environments.

**Core subject learning through second language**

Curricula created by the state of Montana is based on the nationally adopted Common Core Standards and is implemented in all public schools. Students enrolled in the DLI program are all second language learners, and are taught some Common Core Standards-based grade-level curricula in the target language. Concurrently, while learning standards-based content,
students build their second language proficiency in all domains; reading, writing, listening and speaking. There is disparity between the students’ expressive abilities in the language of instruction and the requirement that students demonstrate their mastery of subject-specific learning targets. This gap is in part due to the emphasis many language educators place on developing their students’ basic interpersonal communication skills (BICS), while cognitive academic language proficiency (CALP) is needed for academic competence. Academic language is specialized and develops in unison with higher order thinking skills such as comparing, classifying, synthesizing, evaluating and inferring. When educators fail to develop students’ CALP, students are challenged to sufficiently express their understanding of the content.

**Self-efficacy**

An open-enrollment policy at the school allows students to enter its dual language program after second-grade. Lacking a necessary level of proficiency in the target language places new students entering beyond second grade at a disadvantage relative to their counterparts who started the program in earlier years. This situation frequently results in new students experiencing frustration and disengagement due to their inability to express their developing content knowledge and concept understanding through either the speaking or writing domains.

**Motivation**

As students advance through grade levels, and correspondingly, the academic rigor increases, their motivation to learn content through the target language typically declines. Frustration builds on the part of students and the teacher when target language proficiency is not achieved and thus prevents students from fully expressing their content understanding. Low
levels of student motivation combined with demands of high academic outcomes placed on teachers can create a stressful and less than efficacious learning environment.

**Purpose of the Study**

The purpose of this study is to investigate how the integration of Drama into core subject instruction in Spanish improves student learning and motivation among first grade second-language learners enrolled in a Dual Language Immersion Program in Western Montana.

Many students who participate in the DLI program experience a decrease in motivation to learn in a second language as they advance in grades. This change is in part due to traditional pedagogical practices that rely mainly in lecture formats and skill-driven activities that promote rote memorization. Such teacher-centered models encourage passive engagement and negatively impact the effort and quality students put forth in their learning. If these students are not taught in ways in which they are engaged in the learning process, their lack of motivation and frustration can lead to low academic performance. Consequently, low academic performance negatively impacts the students’ self-esteem leading to behavioral issues that affect their learning experience and that of their peers.

In this study, Drama-based instructional strategies were used within the larger curricular framework to teach a group of nineteen first-grade students while developing the students’ language abilities in the target language. This style of education fostered learning skills such as collaboration, critical thinking and problem solving. The students participated in scaffolded, drama-based activities designed to learn the curricula and to demonstrate their understanding of newly acquired concepts and skills. Students’ formative and summative evaluations were
conducted using quantitative and qualitative data collected during classroom drama-based science lessons and SPARK’s film making residency.

The goal of the study was to embed drama techniques into content-based learning with the purpose of engaging students to increase their academic performance. Additionally, the intention was that doing so would motivate students to continue learning a second language and inspire their academic and artistic growth through exposure to drama.

Research Questions

Q1: How can the integration of drama-based strategies into content instruction in a second language help students to be engaged and motivated in their learning?

Q2: What is the relationship between students’ attitudes about learning a second language and the teacher’s pedagogical practices?

Significance of the Study

While there are a number of studies that address the effectiveness of the integration of drama in education to deliver core subject instruction and to teach a second language, there is little empirical research on the topic of using drama methodologies to teach content through a second language. The need to explore teaching practices that actively engage students while they receive instruction of core subjects through a second language prevails. Thus, the present study is significant in that the data collected serves as evidence that the implementation of drama-based activities to teach core subject areas in a second language can result in higher student engagement and increased language proficiency in the target language. Together, these factors support students in achieving mastery of the learning targets established by Common Core Standards.
Definition of Terms

1. Arts Integration: is an approach to teaching in which students construct and demonstrate understanding through an art form. Students engage in a creative process which connects an art form and another subject area and meets evolving objectives in both (The Kennedy Center for the Performing Arts, 1999)

2. Common Core Standards (CCSS): clear and consistent learning goals for the knowledge and skills students need in English language arts and mathematics from kindergarten through high school. The CCSS were created by The Council of Chief State School Officers and the National Governors Association in 2009 and 2010. The federal government has stimulus funding through Education Department grants for states that adopt the CCSS.

3. Content-based instruction (CBI): teaching approach to provide second language learners instruction in content and language.

4. Core Subjects: refers to English, mathematics and science.

5. Dual Language Immersion: a form of bilingual education in which students are taught literacy and content in two languages (Dual Language Education of New Mexico).

6. Second Language Learners: an individual who is learning a language other than his/her native language.
Chapter Two, Literature Review

The literature review addresses three areas related to the challenges present in the DLI program in this study and discusses a pedagogical approach using drama in which educators provide their students with authentic learning experiences that promote exploration, inquiry and discovery. The first section relates to research on core subject learning through a second language. The second section focuses on research studies about students’ self-efficacy. Finally, the third section discusses research related to students’ motivation.

Core Subject Learning through a Second language

Content-Based Instruction (CBI) and Content and Language Integrated Learning (CLIL) are programs commonly used in schools that offer language immersion models. Cenoz (2015) states that CBI and CLIL refer to programs where academic content is delivered through a second or additional language and that are not pedagogically different from each other. There are two types of CLIL programs: lesson-driven and content-driven. A content-driven CLIL program aims to deliver the content of the academic subject taught with the language being the medium. Therefore, students are assessed on their understanding of content. Language-driven CLIL programs focus on the foreign target language which is taught through thematic units, and the assessment of students is based solely on their language proficiency. Variables such as teaching methodologies and teacher collaboration determinate the effectiveness of the implementation of CBI and CLIL programs.

Cammarata and Haley (2018) conducted a five-year study on student achievement through targeted professional development intervention. The authors sought to research how professional development helped immersion teachers to better integrate content, language, and
literacy. The professional development focused on curricula analysis in the disciplines of study, exposure to the concepts of content, curricula planning template understanding with identification of instructional objectives, and study of instructional strategies to maximize instruction in immersion classrooms. Each year culminated with an implementation phase in which the teachers collaborated through a cycle that included lesson planning, teaching, observing and refining. The results indicated that teachers showed great improvement and designed well-integrated curriculum plans that effectively targeted grammatical structures and literacy skills.

A research study led by Yi Lo (2015) evaluated how cross-curricular collaboration between English language and non-language subject teachers contributes to learning a second language in CBI programs. The 20 month project began with a professional development training in CBI and cross-curricular collaboration for teachers. Using the information from the professional development trainings, teachers designed and implemented four units of instruction under a cross-curricular collaboration format. The teachers identified and discussed students’ needs as well as the program’s academic goals in the subject and target language. Data about how cross-curricular collaboration contributes to learning L2 was evaluated to identify teachers’ pedagogical practices that facilitated students’ learning of the target language objectives. The results revealed a positive effect of cross-curricular collaboration as student’s post-test scores were higher in all target language goals. The new format also impacted the teachers’ pedagogical practices as they incorporated their students’ needs and language objectives into their lessons.

Lai-wa and Yuk-lan (2011) conducted a study on a professional development program to teach English through Process Drama. The program was designed for educators of students in
primary years programs and was delivered in two phases. Phase one focused on professional
development to provide teachers with basic knowledge and skills in using Process Drama to
facilitate second language acquisition. Phase two was devoted to on-site support for teachers in
designing and implementing English Process Drama units that created authentic learning
experiences whenever the four language domains; reading, writing, listening and speaking, were
integrated. Findings showed that student willingness to use the target language for
communication increased when teachers became more approachable as their roles changed from
being merely transmitters of knowledge to interactive learners along with their students.

These studies address the challenges many immersion schools face when delivering
content-based instruction, and lend insight into possible solutions to those challenges.
Cammarata and Haley note that the implementation of an integrated approach requires changes
in pedagogical methodologies which determine the success of CBI and CLIL models. Yi Lo’s
study complements Cammarata and Haley’s study as it emphasizes the importance of cross-
collaboration between subject and language teachers. Lai-wa and Yuk-lan’s study validates the
previous author’s recommendations by presenting the benefits of Process Drama pedagogy when
teaching an additional language.

These studies effectively identify the key factors that define optimal cross-collaboration.
The authors particularly emphasize the importance of identifying program content and language
requirements when planning lessons to effectively achieve targeted goals in both subject content
and language proficiency. Lai-wa and Yuk-lan add that Process Drama enhances second
language acquisition by shifting the delivery of lessons from traditional discourse in which
knowledge is presented from the point of view of the teacher to didactic discourse that is more authentic in that it encourages interaction via verbal communication.

Although the research articles evaluated in this section provide evidence for the need to change teachers’ pedagogical practices to maximize instruction in immersion education, two of the studies were limited by the fact that the research participants were middle and high school age students. The stages of second language acquisition manifest themselves differently according to the age of the language learner. Young learners acquire a second language primarily by imitation rather than by translation. On the contrary, older learners tend to rely on translations and cognates by accessing their exiting first language schema. The studies were further limited by the absence of specific teaching strategies used to deliver content-based lessons. Unlike the previously mentioned studies, Lai-wa and Yuk-lan’s research focuses on primary years students and recognizes the pedagogical and artistic challenges teachers face when using drama-based instruction. These challenges refer to teachers making the performance aspects of drama the focal point of their instruction rather than emphasizing the process-oriented work that Process Drama promotes.

Self-efficacy

Psychologist Albert Bandura defines self-efficacy as the “belief in one’s ability to influence events that effect ones’ life and control over the way these events are experienced” (Bandura, 2010). His theory of self-efficacy has informed many research studies in the field of education with the goal of analyzing self-efficacy’s influence on student motivation, learning, achievement and self-regulation. Additional studies target teacher self-efficacy to explore how a teacher’s belief in their ability to guide their students to success impacts learning outcomes and
overall student achievement. Teacher self-efficacy is important when implementing pedagogical approaches such as Process Drama which require that educators possess specific knowledge, confidence and an artistic skill-set specific to this art form. It is essential that teachers with limited drama artistry and new to the understanding of Process Drama as pedagogy, have a growth mind set to be able to change traditional instructional approaches to more interactive pedagogies that are learner-centered.

Schunk and DiBenedetto (2016) state that research has shown self-efficacy influences motivation, achievement and self-regulation, and, therefore in educational contexts, it can affect the choices students make in their learning experience. Studies revealed that students with high self-efficacy choose a variety of activities, are more willing to try new things, and show greater interest in learning. Additionally, they participate more, persevere and put forth greater effort to obtain a desired outcome.

The theory of self-efficacy is linked to social cognitive theory. The social cognitive theory explains how human agency, “the belief that one can exert a large measure of control over the important events in one’s life” (Schunk et al., 2016, p. 34) is manifested in self-empowerment. Thus, individuals contribute to their physical, emotional and cognitive well-being by altering their environmental conditions. Others can influence an individual’s development of their human agency and in the changes of that environment in which the individual functions. Therefore, students who are more efficacious are able to self-regulate during the learning process. They overcome environmental distractions, select partners who are also efficacious, set goals, and apply strategies and effort to achieve those goals.
The authors explain that beyond self-efficacy, a students’ values and outcome expectations are part of their belief system that influences student behavior. Therefore, even efficacious students will not produce at a level of competence if they don’t value the subject they are learning. Similarly, students usually engage in activities that they perceive as having a positive outcome and avoid those activities that they believe may end negatively. Teacher self-efficacy refers to the belief in one’s abilities to help students learn and “should influence the same type of activities that student self-efficacy affects” (Schunk et al., 2016, p. 38). The authors indicate that teachers with higher self-efficacy create challenging activities that meet all their students’ needs and support them to succeed emphasizing the relationship between teacher self-efficacy and instructional quality.

Schiefele and Schaffner (2015) conducted a study to determinate the relationship between teacher self-efficacy and student motivation. This study was based on the theory that a highly self-efficacious teacher uses more intricate instruction methods such as activity-based approaches, has an open attitude towards new teaching programs, and displays supportive or adaptive teaching behaviors. That is, the teacher considers mistakes part of the learning process and fosters student autonomy. The study emphasized two components in teacher’s knowledge: content knowledge and pedagogical content knowledge. Content knowledge refers to teacher’s familiarity with domain-specific subject matter. Pedagogical content knowledge is the understanding and skills needed to teach a specific subject and to make it comprehensible to the students.

Findings revealed a gap between teacher- reported and student-reported practices. Results from those teachers who rated themselves on teachers’ interests and self-efficacy show a
correlation with teacher’s motivation and instructional practices, while student-based ratings of instructional practices were less favorable. Schiefele and Schaffner credited this discrepancy to teachers’ self-serving tendencies or ideals that may have led highly self-efficacious teachers to report higher levels of adaptive instructional practices. Furthermore, findings indicated that students rated their success based on their interest in the subject matter, while teachers attributed student success to the teacher’s instructional practices, suggesting that teachers’ self-rated instructional practices had limited validity in reporting the level of student success.

Schunk and DiBenedetto’s research in self-efficacy informs my understanding of students’ behaviors and attitudes towards their learning. The authors emphasize the complexity of the theory of self-efficacy and use specific examples to substantiate their research. Additionally, the authors suggest a link between student self-efficacy and teacher self-efficacy. They note that teacher self-efficacy is manifested in instructional quality which in part will determine students’ outcomes. The validity of the relationship between student self-efficacy and teacher self-efficacy is later questioned in Schiefele and Schaffner’s research results as the students who participated in that study credited their success to their own self-efficacy and not to the teachers’ pedagogical practices. However, these results coincide with Schunk and DiBenedetto’s theory that students’ values and outcome expectations are factors that influence students’ effort regardless of their level of self-efficacy. Lai-wa and Yuk-lan further confirm the link between students’ values and outcome expectations by stating that culturally shaped conceptions about drama in education affect teachers’ practices. When educators, parents and students rely on the skills-based demands of the curriculum and tests’ results, teachers see the learning outcomes of drama auxiliary and peripheral (Lai-wa, 2011); and, therefore fail to understand the potential of Process Drama as an effective pedagogy.
Schunk and DiBenedetto’s research study is in agreement with the studies analyzed in the above noted content-based instruction section regarding cross-curricular collaboration between subject and language teachers to achieve common goals. Schunk and DiBenedetto define cross-collaboration as *Collective self-efficacy*.

Schiefele and Schaffner’s research makes reference to the importance of *teacher content knowledge* and *pedagogical content knowledge*, and states that teachers’ knowledge of the content to be delivered is crucial when planning lessons. Thus, a teacher’s clear understanding of the concepts to be taught will facilitate the identification of key literacy skills students will need for high academic outcomes. For instance, while studying the concept of animal adaptations, students learn about habitats and ecosystems. Comprehending the nuanced differences between the terms *habitat* and *ecosystem* would facilitate the teacher in designing a lesson that targets language structures that compare and contrast, evaluate, form hypotheses, and communicate findings. *Teacher content knowledge* and *pedagogical content knowledge* are essential in the successful implementation of Process Drama pedagogy for content and second language acquisition. Dunn (2016) indicates that all forms of drama require teacher skill, artistry and willingness to be spontaneous and take risks. Thus, this model of drama in education requires that the teachers use a variety of drama conventions while working alongside with their students.

**Motivation**

What motivates and engages students is a frequently asked question in the educational context. Although answers may seem obvious, the fact is that motivation and engagement are complex behaviors influenced by cultural values and environmental variables. To better
understand the complexities of motivation, much research has been done in the field of evolutionary behavior. Research has sought to discover which type of motivation; intrinsic or extrinsic, is more closely associated to authentic student engagement. Common themes arise across a variety of theories on self-efficacy and aim to explain what influences and shapes student motivation and impacts academic outcomes.

Alkaabi (2016) used multiple motivation theories to present a study that provided a unifying framework to understand student motivation in education and in other disciplines. The author explains that experimental research tells us motivation is both conscious and unconscious. Conscious motivation is explicit and focuses on concrete, immediate goals while unconscious motivation is implicit and defined by a repeated behavior over time.

The theory of operant conditioning shows that people seek reward and avoid punishment. This theory has often been observed in school settings where educators reward their students for positive behavior and punish them for negative behavior. This theory however, is losing popularity in the educational field since it fails to explore the spectrum of human behavior. The author links explicit and implicit motivation to the theory of operant conditioning stating that rewards and punishments act as extrinsic motivators resulting in short-term outcomes. He adds that “the most powerful motivators are those that are intrinsic, where people do things because they wish to do them” (Alkaabi, 2017, p. 194). Lai-wa and Yuk-lan concur by emphasizing that Process Drama offers opportunities to use and practice language structures that reflect the unpredictability of language in the real world (Lai-wa, 2011). Therefore, Process Drama pedagogy gives students an authentic reason to use the target language while developing their intrinsic motivation.
The goal-setting theory is also commonly applied in an educational context. This theory emphasizes goals as outcomes that are related to the gap between the current situation and the desired situation. Underlying this theory is the crucial belief that the goal can be attained. Therefore, goals must be moderately challenging and regular feedback on progress needs to exist to encourage students’ commitment to achieve the desired goal.

The self-determination theory denotes three innate needs: competence, autonomy and relatedness, and states that their fulfillment is essential in fostering intrinsic motivation. Competence is based on the students’ feelings of effectiveness and confidence in the ability to achieve desired outcomes. Autonomy refers to the students’ need to initiate their actions and have a sense of freedom when participating in a learning activity. Relatedness is the need to be connected to others to build closeness and trust. These innate needs that characterize the self-determination theory are aligned with the benefits that second language learning through drama provides. For instance, process drama requires a shift in power from teachers to students which promotes student autonomy. Additionally, it provides an encouraging and safe learning environment that nurtures students’ confidence while developing contextualized language to increase overall competence.

Among the unifying themes Alkaabi found in his study was that motivation positively impacts adaptation. Thus, allowing students to have more autonomy leads to the initiation of inner motivation resulting in more persistence when students face difficult learning tasks. He adds that motivation includes approach and avoidance inclinations. That is, humans employ certain behaviors when they desire a certain outcome and adopt an avoidance behavior when
they perceive the outcome as undesirable. The last unifying theme refers to a supportive environment where motivation flourishes and leads to positive outcomes. When learning about motivation though observation in a controlled environment, the author categorizes the data in four expressions of motivation: behavior, engagement, physiology and self-report

Brophy’s (1983) article *Conceptualizing Student Motivation* discusses the cognitive aspects of motivation and the value students place on academic activities. The author refers to motivation as a general trait characterized by the disposition to value knowledge acquisition, enjoy the process and to take pride in the outcomes. He adds that individuals value certain activities and outcomes over others which leads them to develop “stable beliefs and expectations about their likes and dislikes, strengths and weaknesses” (Brophy, 1983, p. 200). The author argues that motivation to learn needs to be optimized rather than maximized. He bases his statement on research showing that students were motivated when they experienced success with reasonable effort rather than sustained maximal effort.

Brophy also explains the differences between “mastery oriented” and “helpless” students. His observations showed that “mastery oriented” students persisted under difficult tasks and frustrating situations. They concentrated on the task; they did not take time to give themselves pep talks to reinforce their belief that they were capable students, they disregarded their emotions, and did not evaluate their performance. On the other hand, “helpless” students were distracted by thoughts of despair, negative self-evaluation and anticipated failure. The author points out that students who display symptoms of anxiety and dependency are receptive to teacher praise and encouragement rather than teacher challenge or critical feedback, while confident students show the opposite pattern.
Furthermore, Brophy analyzes teaching strategies that develop student motivation. *Performance focused strategies* are based on incentives and rewards for task completion. *Value focused strategies* follow student performance through rewards and try to convince students that the knowledge gained and skills mastered will benefit them in their future lives outside the school setting.

The unifying themes Alkaabi finds in multiple motivation theories provide crucial information about human behavior and reveals how motivation theories and *self-efficacy* theories are interlinked. For instance, Alkaabi indicates that students’ feelings of effectiveness in achieving desired goals are tied to an innate need of *self-determination*. In like manner, Schunk and DiBenedetto state that *self-efficacy* is based on one’s belief in one’s abilities to achieve their goals.

Alkaabi’s research study distinctively defines *extrinsic motivation* and *intrinsic motivation*, and emphasizes the importance of developing *intrinsic motivation* to enjoy the process that one experiences when working towards long term goals. Brophy on the contrary, defines motivation only as *intrinsic*. This is a limitation of his study as elementary educational settings often rely on extrinsic motivation in the form of material rewards.

Alkaabi’s and Brophy’s research had some limitations as the authors did not present specific examples that could better validate each theory they present. This is further exemplified by the lack of an explanation of how one transitions from extrinsic to intrinsic motivation. This metacognitive change is crucial information for educators because young learners still rely heavily on extrinsic rewards to accomplish goals. Additionally, Alkaabi states that a system of rewards and punishments is falling out of favor in schools, but fails to mention that excessive
positive reinforcement has become a trend in many educational settings. As a result, generations of students who rely on extrinsic motivation have become the norm in classrooms.

Similarly, Brophy suggests that educators need to supplement *performance focused strategies* and *value focused strategies* with approaches that foster the value of acquiring knowledge and skills, but the author doesn’t bolster his statements with alternative teaching methods. Additionally, the author fails to analyze pedagogies based on constructivism and social constructivism where students learn through experience and reflection, and in which learning is a collaborative process between teacher and students. This limitation provides subsequent studies an opportunity to explore different teaching approaches that connect student creativity with content objectives.

**Summary**

The research studies reviewed in this chapter indicate that relevant professional development training can assist teachers in designing well-integrated curriculum lessons that effectively target grammatical structures, literacy skills and subject content while delivering instruction in a second language. Professional training in Process Drama is also essential to equip educators with knowledge about this pedagogical model, including the selection of pretexts to design lessons and materials that provide a “hook” for the students. Dunn asserts that when “the application of drama strategies takes place in isolation, in an *ad hoc* manner or without a keen understanding for how dramatic forms, conventions and elements interact with one another, the work can become pure functional” (Dunn, 2016, p. 2), consequently, adding no benefit to existing content through language teaching approaches. Another area of research shown to be valuable for the current study Drama Applied to Content-based Instruction in
Elementary Education is how student self-efficacy influences one’s motivation and achievement ultimately affecting the choices students make in their education. Equally important is how teacher self-efficacy also impacts student learning and outcomes. Teachers lacking knowledge and expertise with drama pedagogies must be willing to adapt to complex demands when using this art form, take risks and embrace a student-centered learning approach in order to improve the quality of the intended learning. Although several studies addressing the benefits of Process Drama as a pedagogy to teach content or an additional language have been conducted, more research on embedding drama into daily content instruction in Spanish is needed. This current study contributes to the existing body of research literature by measuring the effects of drama-based strategies applied to the delivery of content-based science instruction in elementary education.
Chapter Three, Methods

This case study describes how the integration of drama into content instruction in a second language helped students to engage in their learning. This study took place in an elementary school located in West Central Montana. Thirty-two percent of students at the school qualified for free lunch. Ninety-nine percent were students whose native language is English. Eighty-two percent of students were White; 8% were American Indian/Alaskan Native; 5% were Hispanic or Latino; 3% were Black or African American; less than 2% were Asian/Pacific Islander; and less than 1% were Native Hawaiian.

The instruction was provided in a classroom at the participants’ elementary school during the regular school day. The classroom was equipped to accommodate twenty first-grade students and contained desks designed to fit together in a variety of configurations to enhance collaboration. The classroom environment also offered students rocking chairs and soft seating cubes. It additionally contained a u-shaped table in one corner and a Promethean interactive classroom panel in the front of the room.

The sampling procedure I used was convenient sampling. The participants were restricted to those students at my school site. I selected all students from one of two groups I taught in the DLI program. The participants in this study were 19 six and seven-year old first grade students. Eighteen were White; eight were males and ten were females. One student was a female American Indian/Alaskan Native.

Observation checklists and field notes were used to collect data to reveal the relationship between students’ attitudes about learning content through a second language and the teacher’s pedagogical practices. The same posttest was administered as both a reading/writing exam and a
performance task to evaluate students’ newly acquired knowledge about Earth and Space. Quantitative and qualitative data was gathered to inform the research.

I introduced my students to drama from the beginning of the school year as learning the school-wide rules and expectations created the ideal opportunity to experiment with some drama conventions. I acted out various scenarios that I had created to model undesirable behaviors in a variety of school settings and learning situations. In turn, students used improvisation and pantomime to model their suggestions to correct those behaviors.

Transitions between subject-specific activities were designated as “brain breaks”. During these allocated five-minute periods we played a variety of drama games that aimed to build students’ confidence, creativity and spontaneity while developing their sensory, concentration, and problem-solving skills. We started with space walks where students were encouraged to explore the classroom’s physical space and become aware of the relationship between their own movements and the space in which they were functioning. Once students became familiar with their classroom environment, we experimented with transformation games to make invisible objects and abstract concepts “visible”. The Invisible Object and Involvement with Three or More were games in which students examined an invisible object with their senses and investigated ways to stay involved with the object while working in coordination with the rest of the members in their group. Students used the target language to describe in a sentence their interactions with the object. Pantomime was later introduced and practiced through the game Mirror. While participating in this drama game, some students initiated movements in slow motion while their partners reflected those movements as an exact mirror-image. These three drama-based games were crucial for success with subsequent science lessons in which students learned about the physics of gravity among celestial bodies.
Figure 1

*Earth and Sun*

Note: This figure shows two students sharing their interpretation of how Earth orbits while their peers look on.

Figure 2

*Moon and Earth*

Note: This figure displays students demonstrating their understanding of how the Moon orbits Earth.
Students progressed in their experimentation with drama by playing *Story Games* and using *Improvisation*. These games invited students to begin to analyze the parts of a story: beginning, middle, and end, and its elements: characters, setting, problem and solution. During this phase, I pantomimed a story which came to a halt when the problem was presented. Students individually imagined a solution and stepped into my role in order to pantomime their ideas. The rest of the students, who were the audience, were encouraged to use the target language to verbalize the solution their peer had presented. Additionally, we explored characters’ traits from the stories in our *Ready-Gen* language arts curriculum by playing a variation of the drama game *Changing Emotion*. For instance, once the students became familiar with a story line, a group of students became actors who enacted the story by focusing on the characters’ emotions while the rest of the class read it chorally.

**Figure 3**

*Changing Emotions*

Note. This sequence of photographs shows a student creating a reenactment of scenes from the book *Los Cazadores de Monstruos*. This student aims to display the changes in emotions the characters experienced during their adventure to catch a monster.
The classroom drama activities I employed were a compilation of those described in Viola Spolin’s book *Theater Games for the Classroom, 101 Drama Games for Children* by Paul Rooyackers, and the activities I learned in drama classes taught by Jillian Campana in the University of Montana’s Creative Pulse Master’s Program.

Students had the opportunity to display their drama skills to an audience other than their peers when they presented a puppet play about *El Dia de los Muertos* to the school’s kindergarten children. A student-led question and answer forum followed the presentation where students explained to their audience the process we used to create the play. The interactive forum culminated with students teaching a *Dia de los Muertos* song in Spanish to their audience and inviting audience members to dance.

**Figure 4**

*El Dia de los Muertos*

Note. This figure exhibits students presenting a puppet show about the origin and significance of the *El Dia de los Muertos* tradition to a kindergarten student audience.
Later, the students applied the skills they had gained through learning drama-based strategies to aid in the acquisition of academic content knowledge during the unit of study *Earth and Space Science*. During this six week learning period, Process Drama was the primary pedagogy used to develop students’ deeper understanding of the properties, functions and relationships of the Sun, Moon, Earth and stars while they internalized key cognitive academic language in Spanish.

**Figure 5**

*The Moon in Waning Crescent and Waxing Crescent Phases*

Note. This figure displays students experimenting with movement to create the waning crescent and waxing crescent phases of the Moon.

To attend to the key characteristics of Process Drama, student-centered activities were planned which demanded collaboration among the participants while I facilitated student constructed meaning based on content I presented to them. Students used *freeze frame* and *tableau* techniques to represent their understanding of key scientific concepts set forth as
required by Next Generation Science Standards (NGSS), Earth and Space Science for First Grade. Concepts included the Ocean’s tides as they relate to the gravitational pull of our Moon, and how gravity allows Earth to maintain its orbit around the Sun.

**Figure 6**

*Quarters of the Moon*

Note. This figure exhibits students using posture to resemble the Moon in its first and fourth quarter phases.

**Observation Checklist**

I utilized observation checklists to evaluate students’ behaviors and their ability to demonstrate their newly acquired science knowledge in the target language and through drama. The behaviors I observed were divided in the following categories: active listening, cooperation with instructors and peers, participation, and demonstration of new content knowledge.

Observations were conducted throughout a three-month period at different times; when students took part in drama games, during delivery of subject content and demonstration of
subject content understanding, and during the preparation of presentations intended for student audiences. Observations of participants were conducted in their classroom in a natural setting.

To establish validity with the observation checklist, it was used with a group of students other than the study participants to ensure that it measured all the behaviors it was intended to assess. To check its reliability, it was administered multiple times to the same group of students and modified as needed until the scores were similar after multiple trials.

**Posttest**

The posttest was a modification of the *Post Test of The Next Generation Science Standards Resource Bin* designed by the Rourke Educational Media. The Next Generation Science Standards Resource Bin is a research-based program that teaches standards-based content while building students’ literacy skills. The program is designed to meet the needs of diverse student populations including English Language Learners and Dual Language Learners. The test included 19 items that evaluated students’ newly acquired knowledge about the moon, sun, earth, solar system, galaxies and constellations.

The test included a vocabulary bank from which the students could choose to complete thirteen statements. Students were asked to independently read the test and complete it in writing. They received assistance when language-based needs arose. That is, when the student lacked sufficient proficiency in the second language requiring the test item be rephrased. The students received no support with the vocabulary bank. The test also included a picture-vocabulary matching activity with 5 items.

The validity and reliability of the posttest were established by piloting it with a different smaller group of students and by peer review by a fellow elementary science teacher.
Data Analysis

Quantitative and qualitative analyses were employed to interpret data collected and were categorized to address the following research questions: How can the integration of drama into content instruction in a second language help students to be engaged and motivated in their learning? And, what is the relationship between students’ attitudes about learning a second language and the teacher’s pedagogical practices?

The science posttest results were analyzed using descriptive statistics to compare two groups: drama-based instruction group (Group A), and traditional instruction group (Group B). To investigate a possible correlation between students’ reading proficiency and their performance in the posttest, both groups were subcategorized based on student scores in the Renaissance Star 360 Spanish Early Literacy assessment administered in January. The Star 360 assessed students’ early literacy skills to measure their growth and mastery of Spanish language based on benchmarks derived from nation-wide Star 360 results. Subcategories included above/at benchmark, on watch, intervention, and urgent intervention. Findings from observation checklists and field notes were interpreted qualitatively through my inferences based on evaluative observations of students’ behavior and performance.

Additionally, students participated in the Roxy Film Academy Residency funded through SPARK, and had the opportunity to gain knowledge in the art of film-making while applying the dramatic and interpersonal skills they had developed in the classroom during drama games and science instruction. The Roxy Film Academy experience concluded with the creation of a short film based on the African legend The Animals Share.
Chapter Four, Results

Observation Checklist

The purpose of observation checklists was to evaluate students’ behaviors in the areas of active listening, participation, collaboration, and demonstration of knowledge (see Appendix A for observation checklist).

Observations made during science lessons were limited to 17 participants as two of the 19 original participants failed to act in accordance with established classroom and school expectations, which required their removal from the room on a daily basis. These observations were divided in two groups: lessons and formative assessment. Each science lesson included three components. The first component delivered content through direct instruction. The second component encouraged students to construction their understanding of content-meaning through drama. The third component provided students the opportunity to present their interpretation of the content through drama to their peers. I used the observation checklist while students worked in their groups to explore multiple ways to connect drama conventions to the content under study. During this time, I was a non-participant observer who recorded students’ behaviors as stated on the check list. Additionally, I took notes on student dialogues and interactions.

Results from science lessons revealed that most students demonstrated engagement as active listeners as they restated the information delivered and asked clarifying questions to demonstrate their understanding through movement and sound. Student engagement was higher when the drama activities were novel, and engagement diminished with repetition of the same activity even though the content was different. The same trend was observed on behaviors demonstrating student participation and cooperation. However, when a drama activity was put aside for multiple days before it was revisited, students not only showed enthusiasm when
participating but also displayed a sense of confidence as the activity’s outcome was now more predictable.

**Figure 7**

*Creating a Tableau*

Note. This figure displays two students discussing how to create a *tableau* to represent their perspective of the phases of the Moon.
Figure 8

Creating a Moment in Time

Note. This figure shows students experimenting with freeze frames to represent the Moon’s cycle.

I conducted the formative assessment in the form of a game show called El Canal de las Ciencias (see Appendix B for formative assessment). Students formed 5 teams with each team consisting of 4 participants. An incomplete statement with 3-4 possible answers was projected on the promethean board and read to them. Each team had 1 minute to discuss what it believed was the correct answer choice. During this timed activity, groups took turns sharing their answers. The team with the correct response was allocated another minute to create a demonstration of the answer using drama, and presented it to the rest of the teams.
Note. This figure exhibits students discussing with their team members correct answers to questions asked during the game show, *El Canal de las Ciencias*.

Results during this formative assessment indicated that those students within each team who demonstrated a consistently high level of engagement during science lessons came to consensus on their answer by accessing their prior knowledge. Those students also cooperated with their team members when they created and presented their dramatized answer. Conversely, students who during the lessons were disengaged and needed redirection demonstrated similar disengagement during the formative assessment activity. They were easily distracted by classroom furniture or materials on student desks, did not participate in achieving consensus and relied on their teammates for the creation of their dramatization.
Figure 10

Phases of the Moon

Note. This figure shows students demonstrating their understanding of the Moon’s phases with postures.

In summary, checklist results indicated that students were more engaged when activities were novel and lost interest with repetition of those activities. However, repetition of the same activities allowed students to internalize content. Thus, students showed greater confidence when the activities were performed subsequently. A minimal number of students displayed inconsistent engagement. That is, they participated and cooperated only when they perceived the activity to be “fun”, and withdrew when the activity required proof of newly acquired knowledge or involved waiting.
Figure 11

*Cycle of the Moon Phases*

Note. This figure displays students using *freeze frames* to represent the lunar phase cycle.

**Posttest**

The nineteen questions on the science posttest aimed to evaluate the level of students’ content knowledge and conceptual understanding about the sun, moon and earth (see Appendix C for science posttest). *Group A* received drama-based instruction. *Group B* received the same content instruction through traditional teaching methodologies—that is, the teacher was the information provider and the students the recipients. Both groups received instruction in Spanish.

Tests results for *Group A* showed that 5 students scored 17 to 19 correct answers, 1 student scored 16 correct answers, 5 students scored 11 to 13 correct answers, 2 students scored
8 to 10 correct answers, 2 students scored 5 to 7 correct answers, 1 student scored 3 correct answers, and no students scored 0-1 correct answers.

Test results for Group B showed that 5 students scored 17 to 19 correct answers, no students scored 14 to 16 correct answers, 2 students scored 11 to 13 correct answers, 4 students scored 8 to 10 correct answers, 1 student scored 9 correct answers, 1 student scored 4 correct answers, and 1 student scored 0 correct answers.

Figure 12

Science Posttest

![Bar chart showing the number of students with correct answers on the science posttest.

Note. This figures indicates the number of students with correct answers on the science posttest.

To explore the possible connection between student reading ability and test performance, I included the students’ Star 360 scores.
In *Group A*, eight students tested *at/above benchmark*, 5 students tested *on watch*, 1 student tested at *intervention* level. In *Group B*, eleven students tested *at/above benchmark*, 3 students tested *on watch*, no students tested at *intervention* level.

Students in *Group A* needed less assistance in paraphrasing the questions and were more focused on the task of completing the test by constructing meaning in their own way. Conversely, *Group B* required more language-based support and sought translations and definitions to clarify key content vocabulary. Additionally, three students in *Group B* engaged in low efficacy self-talk revealing their frustration and inability to complete the test.

To summarize posttest results, there were two variables in the analysis; the students’ science test scores and their reading level. Results indicated that *Group A* which received science instruction through the integration of drama scored higher on the science posttest than *Group B* whose instruction was delivered in a more traditional pedagogical style. Reading scores from the Star 360 assessment confirmed that students’ reading ability did not influence students’ performance on the science test. *Group A* had 3 fewer students *at/above benchmark* than did *Group B*. Additionally, *Group A* consisted of one student at *intervention* level while *Group B* included no students at *intervention* level. The posttest results are evidence that the integration of Process Drama into content instruction was not only effective in engaging and motivating students in their educational experience, but also in attaining proficiency in the intended learning targets.

During the *Roxy Film Academy* activities, I was primarily a nonparticipant observer who collected data over a two-week period. The participants received five one-hour lessons in the art of film making for a total of 5 hours of observation time.
On day 1 and 2 of the Roxy Film Academy Residency, students learned the art of film making, cast/crew roles, and project overview. Most students appeared to be engaged in the presentation and activities delivered by the film academy artist, Kyle McAfee. This behavior was evident when many students participated by asking relevant questions about the subject, worked cooperatively, and carefully followed instructions when being part of the cast and crew. Both sessions ended with drama games. On day 1, students cooperated enthusiastically as they promptly re-organized themselves after each activity and prepared for the next set of instructions which they followed with fidelity. On day 2, one student left the group and refused to re-join, three students exaggerated the movements and sounds disrupting other students and encouraging their peers to follow them.

Figure 13

Set Design

Note. Students draw their cacti for the set during the Roxy Film Academy residency.
Day 3 focused on *set design*. We divided students into groups of 4 participants. Each group drew a 4 ft. tall cactus on butcher paper. One student had to leave the room for non-compliance while the rest were engaged and worked cooperatively from deciding on the type of cactus to draw to completion of its assembly on stacked boxes.

During day 4 and 5, students learned about *filming*. Students performed their roles either as crew or cast members, and scenes from the African legend, *The Animals Share* were filmed. Most of the students demonstrated commitment to their assigned jobs by actively listening and cooperating with the film artist and their peers throughout the sessions. One student was removed from the room due to defiance and two students struggled with following instructions despite repeated re-direction.

**Figure 14**

*The Animals Share Film*

Note. This figure shows students in their cast and crew roles during the *Roxy Film Academy* residency
Chapter Five, Discussion

A growing body of research-based evidence in support of the neurological and cognitive benefits of learning and speaking multiple languages, and parents’ desire to prepare their children for an increasingly multicultural and globalized world have prompted many school districts nation-wide to offer dual language programs. As this trend is on the rise, some schools struggle to address the important challenges dual language programs face. Issues surrounding program design, accountability, curriculum, and pedagogical knowledge of bilingual instruction have resulted in a decline in student engagement and motivation to learn content through a second language. “Successful outcomes require a clear understanding of the DLE program and full implementation of the various characteristics associated with high quality programs” (Lindholm-Leary, 2012, p. 257).

The objective of this study was to investigate how the integration of Drama into core subject instruction in Spanish improves student learning and motivation among first grade second-language learners enrolled in a Dual Language Immersion Program in Western Montana. The study also sought to determine whether teacher self-efficacy influenced student engagement in bilingual classrooms.

Observations conducted during Group A’s science lessons revealed that students’ active listening skills improved. A factor that may have influenced active listening during classroom science instruction could have been the lessons’ structure. For instance, each lesson was designed to include brain breaks every 10-15 minutes during which time students used drama to demonstrate their developing content knowledge and conceptual understanding. By doing so, students were aware of the expectations and put forth greater effort in asking and answering questions to clarify content.
Control group participation and collaboration with adults and peers also improved. Students became familiar with a variety of drama activities which they could use to demonstrate understanding and were given the autonomy to create their own presentations. As students worked with their team members to craft their performances, they navigated through collaborative challenges that required they effectively use their interpersonal skills including communication, negotiation and compromise. Observations showed that when students were free to explore their own creativity, they learned from their peers and appreciated their classmates’ productions. “Buen trabajo”, “Muy bien” and other positive student-generated comments were shared after each presentation.

Science posttest scores revealed that the integration of drama into content delivery was effective and that the students’ reading level had no influence in the positive outcomes of the posttest. This was evident in the test results of one student who tested at intervention reading level and correctly answered 10 out of 19 questions. This particular student displayed traits of shyness and task avoidance during traditional instruction but was very outgoing during science lessons, especially during the Roxy Film Academy experience. This change in behavior may be credited to the learning environment a drama-integrated approach creates. That is, one that gives students the opportunity to experiment with their preferred learning modalities to express content understanding at their personal comfort level.

It is worth noting the high level of confidence Group A demonstrated while taking the science posttest as they sought much less language assistance in paraphrasing the statements than did Group B that did not receive drama-based instruction. Therefore, one can infer that the participants in this study better internalized key vocabulary, content and concepts. As evidence of this inference, when reviewing the test whole-group, students were asked to complete the
statement *La Via Lactea es una galaxia...,* a student enthusiastically shouted “espiral!” Then she added “I know that because when we were learning about the *galaxias* and doing their *formas*, I got dizzy doing the *espiral forma*”. This statement provided clear evidence that the student had internalized the concept gravity and that celestial bodies orbit each other and therefore produce galaxies with different shapes.

Although the integration of drama-based strategies into content instruction in Spanish helped students learn about earth science, there were limitations to the study. The first limitation was related to the time allocated to teach each subject. Language arts and math being the core subjects taught, instructional minutes allocated for science were significantly fewer. As a result, the delivery of each lesson was condensed limiting the time students were provided to experiment with drama activities. Additionally, instructional time was limited due to district-wide requirements including teacher training and testing of students’ progress in core subjects. Teacher trainings involved frequent classroom absences that prevented drama-based learning. Student progress monitoring demanded additional time that would have otherwise been devoted to science instruction. This situation created inconsistencies in the continuity of science learning. As a result, many lessons needed to be revisited necessitating shorter, less experiential subsequent lessons.

Other limitations were related to significant student behavioral disruptions that interfered with teaching and negatively impacted *Group A’s* learning experience. During the study, two students were removed from the classroom due to unacceptable behaviors. Their emotional outbursts and defiance towards adults often left the learning environment in turmoil and the group feeling fearful. Regaining collective emotional equilibrium through drama games helped at
times but compromised the effectiveness of some lessons as students tried to cope with their feelings of anxiety and were therefore not fully invested in their learning.

**Recommendations for Future Research**

Process Drama should be considered as valid as more traditional methods of delivering subject content. Equal instructional minutes allocated to drama-based activities would ensure greater continuity of lesson delivery and validity of results thus encouraging educators to integrate the arts into their teaching methodologies. The selection of a group of participants that have a similar ability to self-regulate would minimize disruptions during drama activities. Students who can regulate their actions, emotions and thoughts can better focus on performing a task in pursuit of long-term goals. Conversely, students who lack self-regulation may need additional guidance to manage disruptive impulses before they can be successful in a learning environment with fewer restrictions. This study was limited to a group of 19 first-grade students. It is often the case that student engagement and motivation decline as students advance in grades and as curricular demands increase. Future studies analyzing process drama applied to content instruction in a second language with students in grades 3rd-5th could measure drama’s impact on student self-efficacy and also serve as a guide to address various challenges inherent in many dual language programs.

**Conclusions**

The present study illuminated some salient findings within the area of instructional methodologies using drama-based activities to teach subject content in a second language. First, student engagement notably improved giving students the opportunity to experience success in not only their internalization of curriculum content and Spanish language proficiency, but also in the development of their interpersonal skills. When students felt successful, they became more
empowered to take educational risks that maximized the autonomy they were given to demonstrate their contextual understanding. Second, students’ growing interpersonal skills revealed to them that successful interaction with others requires the ability to communicate effectively to reach agreement, and that this process often involves compromise. Third, the relationship between teacher self-efficacy and instructional quality was validated as I believed in my ability to influence my students’ educational environment to foster their interests and enthusiasm for learning science in Spanish. Equally important, I nurtured my students’ creativity while respecting their artistic choices so they could value their experience and their intrinsic motivation to learn could flourish.

The greater implication of these findings is that educators who experience a decline in student motivation in relation to content-based learning could utilize a teaching approach that integrates drama into their lessons to promote student curiosity and encourage student originality while aiming to master core-subject concepts and skills. Such a pedagogical approach could only be accomplished in school districts that espouse a progressive learning model which recognizes the validity of arts integration in modern education. With the adoption of such a model, educational institutions could offer teacher trainings in bilingual education and arts integration, as well as provide their educators with opportunities to work collaboratively to design meaningful lessons that achieve common goals. Finally, advocacy from school administrators and dual language program coordinators is needed for the successful implementation of effective classroom practices and instructional methodologies that are congruent with second language development, and bilingual and immersion education theory.

This study’s findings not only validated my belief that dramatization is an empowering way to learn content through a second language, but also helped me to discover my students’
artistic and academic potential. I now have the conviction that otherwise, my students’ strengths would not have been revealed under the narrow lens of traditional teaching practices and assessment methods. This experience gave me the opportunity to establish a mentorship role with my students and to trust in the developing interpersonal abilities they demonstrated when given the freedom of autonomy. My students’ enthusiasm for learning through drama activities rekindled my passion from this art form and encouraged me to design future lessons that are drama-based. Participation in the University of Montana’s Creative Pulse has set me on a path to become a well-rounded and well-prepared student and educator. This journey has inspired me to share with my students the knowledge I’ve gained to better prepare them for an increasingly multicultural world.
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## Appendix A

### Observation Checklist

Lesson / Activity: _______________________________  
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</table>
Appendix B

El Canal de las Ciencias

La luna es
un planeta
una galaxia
un satélite natural
el centro del sistema solar

El sol esta hecho de
gases
estrellas brillantes
lava muy caliente
anillos de fuego

La luna orbita alrededor de
el sol
la vía lactea
el planeta tierra

El sol es
un planeta
una estrella
una constelación
Polaris

El Sistema solar es
un grupo de planetas que orbitan alrededor del sol
la Vía Láctea
la galaxia de Star Trek

La Luna influye
a las mareas
la luz del sol
la rotación de la tierra

Las constelaciones son
planetas que brillan de noche
group of stars that form patterns
el centro del universo
el sistema solar

Las galaxias pueden ser
ruidosas
elípticas, irregulares o espirales
volcanes
Esta es una galaxia irregular elíptica espiral

Esta es una galaxia irregular elíptica espiral

Esta es una galaxia espiral elíptica irregular

La Vía Láctea es una galaxia irregular elíptica espiral

A las diferentes formas de la luna se les llama
- caras de la Luna
- fases de la luna

Cuando es Luna llena, la Luna
- no se ve
- parece una gran pelota en el cielo

Cuando no vemos a la Luna en el cielo se llama
- Luna menguante
- Luna llena
- Luna nueva
¿Cuáles son los movimientos de la Luna?

Discute con tu grupo y muestra los movimientos.

La tierra tiene dos movimientos

Discute con tu grupo y muestra los dos movimientos.

¿Qué causa el ciclo del día y de la noche?

Los planetas del sistema solar
La posición de la tierra con respecto al sol
Las estrellas de las galaxias

La rotación de la tierra alrededor del sol causa el ciclo de las estaciones del año
de día y noche.
Appendix C

Science Posttest

Utiliza las palabras en el rectángulo para completar las oraciones

<table>
<thead>
<tr>
<th>gas</th>
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<tbody>
<tr>
<td>satélite natural</td>
<td>rotación y traslación</td>
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<tr>
<td>planeta tierra</td>
<td>fases de la luna</td>
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<tr>
<td>Vía Láctea</td>
<td>caliente y amarrilla</td>
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<td>universo</td>
<td>sistema solar</td>
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<tr>
<td>espiral</td>
<td>luna</td>
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<tr>
<td>constelaciones</td>
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</tbody>
</table>

1. La luna orbita alrededor del _____________________________.
2. Los movimientos de la Luna son de ________________________.
3. Las ___________________________ son luna llena y luna nueva.
4. La ____________________________ cambia las mareas de los océanos.
5. La luna es un _____________________________.
6. El sol esta hecho de _________________________________.
7. El sol es una _____________________________.
8. El _____________________________ es donde los planetas orbitan al sol.
9. Nosotros vivimos en la galaxia que se llama _____________________________.
10. La Vía Láctea es una galaxia _____________________________.
11. Los grupos de estrellas que forman un patrón en el cielo se llaman ________________________.
12. En el _____________________________ hay cometas, planetas y estrellas.
13. El sol es una estrella _____________________________.

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<td>constelaciones</td>
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</tr>
</tbody>
</table>
14. estrellas

15. galaxia

16. constelaciones

17. sol

18. luna

19. sistema solar