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The use of artistic expressions and the relationship to English Language Learners' academic achievement

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Abstract

The ultimate goal of the education system is to meet the needs of every student. In the quest to achieve this goal, teachers are held accountable for students' academic success. Each teacher has anywhere from 20 to 35 students with a wide variety of abilities and special needs. Teachers have to utilize scaffolding strategies that foster positive effects on their students' academic success, especially of those students whose native language is other than English.

This study was conducted to determine whether there is a relationship between the use of artistic expressions to deliver the curriculum and the academic success of English Language Learners. Previous research provides evidence that different artistic expressions lead to academic achievement, however much of the data is qualitative in nature. For this study teachers were surveyed on the types of artistic expression used in the classroom, and the frequency in which they used them to deliver the curriculum to English Language Learners. Standardized tests scores of English Language Learners from these teachers' classes were analyzed to determine if there was a correlation between the application of artistic expressions in their curricular instruction and the students' academic success.

There was a significant relationship ($p < .01$) between the frequency of the overall use of the arts and ELL students' SAT 9 math scores ($r = .41$). A particularly strong relationship was found between the use of dance and the ELL students' SAT 9 math scores ($r = .45$). The other art forms that had significant correlations ($p < .01$) with mathematics achievement were music ($r = .21$) and storytelling ($r = .30$). Of particular

interest was the finding that there was a significant negative correlation between the grade level of the instructor and the overall frequency of art use in the classroom.

Introduction

The educational system is as intricate as our society; a society that continues to be a “melting-pot” of people from all over the world. The educational system is responsible for the education, and academic success of every student. However, non-English speaking students are failing to meet the standards, and everyone is interested in finding out why, and what to do to improve their academic achievement. For this reason, politicians, and administrators of the Department of Education talk about teacher accountability. In addition, they impose specific curriculums, and the administration of standardized testing to demonstrate that the educational system works. Therefore, teachers have to utilize effective instructional strategies in an effort to try to achieve the academic goals set by the state, but they have to overcome many obstacles.

One of the main obstacles that teachers have to overcome is how to help English Language Learners achieve academic success. By the year 2000, 30 to 40% of the K-12 students were non-English speaking (Laframboise, Wynn, 1996). In a single classroom, there can be a wide range of English Language levels. Teachers have to provide opportunities for English Language Learners to develop their listening, speaking, reading, and writing skills in their second language, English. In order to achieve the highest academic gains, teachers are learning different strategies to deliver instruction effectively. According to CEMREL, Inc., an educational research firm, 67 specific studies conducted in California demonstrated that the inclusion of art expressions in the curriculum improved reading, writing, and math achievement. No matter the level of English

language proficiency, all students benefit from instruction through artistic expressions such as dancing, singing, music, storytelling, visual arts, and drama.

Literature Review

According to Elster, as many as 80% of the students in some schools speak English as a second language (2001). English Language Learners are classified according to their level of English Language proficiency. These levels are: Beginning, Early Intermediate, Intermediate, Early Advanced, and Advanced. Each student in grades K-12 may be at a different level in the areas of listening, speaking, reading, and writing. To facilitate English Language acquisition, teachers are using artistic expressions in the implementation of the curriculum. The inclusion of art in the classroom meets the needs of all students' learning styles, and promotes the development of their academic skills (Elster, 2001; Gardner, 1973; Robbins, 1988).

Students' Styles of Learning and Intelligences

Each student's learning style is different from one another. English Language Learners face more difficulties to succeed because of the language barrier, but theories of learning styles and multiple intelligences helps educators reach all children. For example, Gardner's theory of multiple intelligences helps teachers understand why some students do not excel at school. As teachers become aware of the multiple-intelligence theory, they are stimulated to implement effective strategies to help all students succeed academically. These strategies may include shared singing of predictable songs, music, storytelling, drama, and visual arts. An arts-rich curriculum provides a means for self-expression, for understanding oneself and increasing self-confidence, as well as creative problem solving, and motivation (Elster, 2001).

Art-Based Curriculum as a Scaffolding Tool

Art in the classroom enriches the development of academic skills because it provides students with hands-on experiences. Thus, students have an opportunity to become actively involved, and to develop background knowledge through their experiences. According to Wynn and Laframboise (1996), the use of hands-on and art based strategies provide meaningful language learning experiences. They help students develop and expand oral language competencies. For instance, shared singing of predictable songs helps students to memorize words, phrases and ideas because of the repetitive language patterns, rhythm, and rhyme in the tune and the lyrics of a dependable musical context. Through shared singing students enhance their reading skills because the melody and the lyrics are easily memorized. The predictability of the text and the melody, and the support of the group's choral singing provide scaffolding for all students at their level of literacy and language acquisition allowing them to progress at their own rate (Laframboise & Wynn, 1996). This type of scaffolding strategy provides a supportive framework for English Language Learners whose reading and writing skills are in the emergent stages.

Various other forms of art expression are effective scaffolding strategies that teachers use to instruct English Language Learners. Artistic expressions provide students with concrete experiences. Visual and auditory input helps students build vocabulary, skills, and concepts. According to Akin, when music is included in the lesson, students retain more (1987). 67 studies performed in California showed that students achieved higher in math, reading, and writing when music was included in the curriculum (Elster, 2001). The study conducted by the Norwegian Research Council for Science and the

Humanities found a relationship between high self-perception, high cognitive competency scores, and high self-esteem. In addition, music education improves listening skills; and music games help students learn concepts. Educators agree that music education is beneficial to reading, math, social studies, and history achievement.

Benefits of Art-Based Curriculum

Art should be an important part of a well-constructed curricular program. It does not matter whether art is taught just for art sake or for academic oriented purposes. Art allows for an almost infinite range of highly suitable art curricula that includes themes that catalyze individual imaginations as well as their collective social conscience, thereby enabling them to effectively communicate their ideas in visual form (Anderson & Mcrorie, 1997). Furthermore, Elster explains that Gardner's work has reinforced the value of the arts as a "tool" for the teaching and learning of many skills (2001). Arts based education can accomplish many goals including: Facilitating the development of analytical and problem-solving skills, supporting connections between academic concepts and real life; stimulating natural curiosity; developing and cultivating creativity, and higher order thinking skills; serving as a mode of self expression; and helping students strengthen their ability to acquire and master different symbol systems (2001).

The Ontario Institute for Studies in Education provided evidence that art engages students, especially those who have linguistic, cultural, emotional, and behavioral needs (2001). Art helps students develop their imagination, and to reveal their beliefs about themselves, society, and their roles within the society. Art is beneficial to students' development of writing skills by increasing their aesthetic and critical thinking skills. Furthermore, research has found that storytelling and drama promote deeper learning

experiences. These forms of artistic expression foster understanding of community and self (Mello, 2001; Aiex, 1988; Robbins, 1998). Students learn moral and social themes that they can apply to their own life experience. Nelson found that “Reader’s Theater” is an effective cooperative learning strategy for fostering English language acquisition for second language learners (1996).

Students whose native language is not English struggle to achieve high academic standards due to the lack of knowledge of the English language. Using artistic expressions in the classroom provides an important venue that teachers can explore to support the development of skills in reading, writing, listening, speaking, math, and all other academic content areas. Art meets the needs of every student’s learning style because artistic expressions are multi-modal in nature. Arts deepen students’ learning experiences with hands-on experiences that help them respond in all academic subject areas with higher levels of cognition. Art also motivates students to be engaged in school, and helps them retain more knowledge. Therefore, art provides scaffolding for all students through different artistic expressions like singing, music, storytelling, and drama. Teaching all subjects through a well-constructed art curriculum may provide students with an effective approach to enhancing their academic achievement in a fun, interesting, and painless manner.

Statement of the Problem

The purpose of this study was to determine whether there is a relationship between the use of the artistic expressions such as, dancing, singing, music, storytelling, visual arts, and drama, in the classroom, and the academic achievement of English Language Learners in grades 2-4.

Importance of study

Much of the current knowledge is based on research using qualitative and interpretive frameworks. These methodologies need to be reinforced through studies using systematic sampling and quantitative measures (August & Hakuta, 1997). This study was unique because it used quantitative measures. It analyzed data specifically of English Language Learners in low-income, urban schools, and who had been with teachers who use artistic expressions frequently to deliver the curriculum. Furthermore, it explored relationships between various forms of artistic expression and the degree to which that expression was integrated in to the classroom, and student achievement as measured by one of California's standardized tests, the SAT9.

Statement of Hypothesis

This study proposes that the inclusion of artistic expressions such as dance, music, singing, storytelling, visual arts, and drama in the delivery of the curriculum will be positively related to the academic achievement of English Language Learners.

Methods

Participants

The participants for this study were chosen from three elementary schools that shared the following characteristics: (a) They are located in Southern California; (b) have a high Spanish speaking population; (c) have a high concentration of English Language Learners, and (d) 69 to 100% of the students receive free or reduced lunch (See Table 1).

Table 1

Demographic Characteristics of Participants' Schools

| | | | |
|--|---|--|---|
| | Myra Linn Elementary Riverside, CA | Poplar Elementary Fontana, CA | Serrano Elementary Moreno Valley, CA |
|--|---|--|---|

| Grade Levels | K-6 | K-5 | K-5 |
|--------------------------------------|------------|------------|------------|
| Total Enrollment | 701 | 760 | 987 |
| Black, Non-Hispanic | 45 | 20 | 210 |
| Hispanic | 467 | 661 | 585 |
| White, Non-Hispanic | 163 | 62 | 142 |
| % English Language Learners | 52% | 60% | 59% |
| % Free or Reduced Price Lunch | 82% | 100% | 69% |

(Source: National Center for Educational Statistics, Office of Educational Research & Improvement, 2002)

The participants in this study were 33 teachers, and 110 English Language Learners. The teachers taught second, third and fourth grade. The students were predominantly of Hispanic backgrounds. The socioeconomic status of the students in the three schools ranged from low to average. The range of English Language proficiency levels varied, however, the majority of the students were in the Intermediate to Early Advanced stages of English language acquisition.

Research Design

This was a correlational study designed to investigate the relationship between the frequency of artistic expressions used in the instruction of the curriculum and the academic success of English Language Learners. Students' academic success was measured by the standardized test SAT 9 in reading, math, and language.

Instrumentation

The teachers who participated in this study were asked two questions (see Appendix A). Teachers ranked, on a Likert Scale, from 1 to 5, the type of artistic expression and frequency in which they used each type to instruct English Language Learners. These artistic expressions included dance, music, singing, storytelling, visual arts and drama. English Language Learners were identified and their SAT 9 scores from the school year 2000-2001 were obtained from their respective schools (See Appendix A)

Procedure

Data Collection

The collection of data was conducted through a simple two-question survey with a Likert scale ranging from 1 to 5. The first question asked teachers to rank from the least used to the most used artistic expression in the instruction of English Language Learners. The second question asked how often they used artistic expressions, dance, music, songs, storytelling, visual arts, and drama to instruct English language development.

The scoring of the first question was done separately for each individual type of artistic expression. However, the scoring for the second question was done as a total to show the frequency of the use of all artistic expressions for English language development. After receiving teachers' responses, SAT 9 scores from the 2000-2001 school year were obtained. The scores obtained were from a sample of English Language Learners who were in the classrooms of those teachers who responded last year. Similar data was collected from each student: Raw math, raw reading, and language scores. Other data collected included: Grade level, and overall English Language Proficiency level according to the CELDT scores reported this year.

The data collected from the three different schools was obtained from the SAT 9 because the measurement provides information comparing students' performance in an already established scale.

Findings

The results of this study found some significantly positive correlations between the application of artistic expressions to instruct English Language Learners and their academic achievement. Therefore, the results supported the hypothesis that the use of

arts in the classroom are positively related to the academic achievement of ELL students as measured by SAT 9 test scores.

The coefficient of correlation, r , was calculated for each of the variables. Significant relationships were found between the use of the arts in the classroom and English Language Learners' test scores in math, reading, and language, subject matter areas covered by the SAT 9. There was a significant relationship ($p < .01$) between the frequency of the overall use of the arts and ELL students' SAT 9 math scores ($r = .41$). A particularly strong relationship was found between the use of dance and the ELL students' SAT 9 math scores ($r = .45$). The other art forms that had significant correlations ($p < .01$) with mathematics achievement were music ($r = .21$) and storytelling ($r = .30$). Of particular interest was the finding that there was a significant negative correlation between the grade level of the instructor and the overall frequency of art use in the classroom. This data seemed to suggest that the older the students are, the application of artistic expression for instruction by the teacher is used less frequently.

Implications

Various implications can be drawn from the results of this study. Of particular interest was the strong relationship between the use of dance to instruct English Language Learners and their mathematics achievement on the SAT 9. This suggests that the use of dance may be a viable strategy for the instruction of ELL students. Elster (2001) found that teachers reported positive effects for all students through the implementation of an educational program based on learning through the arts of which dance was an integral part. Dance utilizes mathematical concepts and skills such as counting, fractions, and spatial skills in a context that is embedded with visual and verbal

cues that provide scaffolding for ELL students. When dance is taught, students must learn to count. Also, as students dance they may be informally introduced to fractions. As one learns to dance musical phrases (bars) are broken down into equal parts (beats). Furthermore, dance incorporates spatial skills. When learning a new dance move it is essential to be able to mentally envision one's relative position and orientation in regards to the other dancers. Although dance may be a viable strategy for enhancing mathematical achievement of ELL students, it is important to note that further research is needed in this area before any concrete conclusions can be drawn. In this study, dance was not defined on the survey instrument given to the instructors. Therefore, some teachers may consider dance to be any type of kinesthetic movement used for instruction in English language development (See limitations section).

A significant correlation was found between the use of music and ELL students' achievement in mathematics. This finding is similar to that of Uptis, Smithrim, Patteson, and Meban (2001) in their assessment of the Canadian educational program based on learning through the arts. Music enhances temporal reasoning that is so important in mathematical reasoning. Music helps students develop spatial-temporal reasoning. Keyboarding enhances the learning of mathematics and science (Suzuki, 1991).

Limitations to the Study

Several limitations to this study became evident throughout the course of its implementation. Difficulties emerged as extraneous variables in this study were identified. These included teacher characteristics that were not explored that are related to high achievement such as student rapport and high expectations for student achievement. Another extraneous variable was the amount of teaching experience of the instructor. In

one school it was found that the LEP student population was concentrated in classes where the instructor had less than two years of teaching experience. In future studies, co-varying relationships should be explored between teacher characteristics and years of teaching experience. There was no way of controlling for student's innate abilities associated with academic success. Furthermore, it was impossible to ensure that all of the students in the study had access to the same resources. In some of the school sites students had more computers, books and instructional assistants than in others. In addition, factors in students' homes that predict success in school were not explored. These included parents' levels of education, amount of time that parents participate in their child's education and access to educational materials such as books or computers within their homes.

The only test scores available for analyzing English Language Learners' academic success was the SAT 9. According to Hakuta, the SAT 9 is "a poor excuse of a measure of English development and academic achievement for LEP students. The test was developed to give normative data in reading and math for native English speakers. The tests measure things that are qualitatively different from what would be expected of students learning English" (2001). However, the SAT 9 was the only measurement standardized in all three schools that participated in this study. In addition, the scores used are a year old, since this year's test scores are not available yet. Another limitation that resulted from using SAT 9 scores only was that kindergarteners and first graders do not take standardized testing, therefore, the group of teachers who uses the most art in their curriculum instruction were not part of this study. In addition, the CELDT scores that measure the listening/speaking, reading, and writing skills of English Language

Learners are new this year. Therefore, there were no scores for the year 2000-2001. These scores may provide a better measure of the language acquisition of English Language Learners, and relationships between these measures and the SAT9 can be explored.

Discussion

The findings in this study show a strong relationship between some types of artistic expressions such as dance, and music, and the academic achievement of English Language Learners. Because teachers are being held accountable for the academic achievement of students, especially of English Language Learners' language acquisition, this study supports the previous research. It is suggested that in order to speed up the academic advancement of students whose native language is other than English, teachers must include artistic expressions to teach all subject matters. Art education provides the perfect venue to enhance the academic career of visual, kinesthetic, or auditory learners.

Some artistic expressions have a higher degree of effectiveness in the learning process. English Language Learners who are presented with opportunities to explore language through dancing, singing, music, storytelling, visual arts, and drama acquire knowledge of the English language in a fun, and non-threatening way.

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