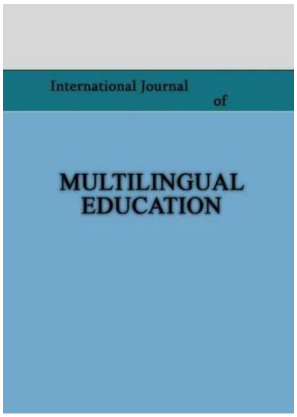

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A Music and Movement Program to Enhance Multilingual Learners' Phonemic Awareness Skills

Kerry Carley Rizzuto
Monmouth University, West Long Branch, New Jersey, United States
Email: krizzuto@monmouth.edu

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Kerry Carley Rizzuto

Monmouth University, West Long Branch, New Jersey, United States

A Music and Movement Program to Enhance Multilingual Learners' Phonemic Awareness Skills

ABSTRACT

The goal for the study was to create an inclusive and culturally responsive music and movement program for all children, concentrating on MLLs. The program allowed them to learn phonemic awareness in a joyful way by moving their bodies to the sounds of music. Given that phonemic awareness skills play an important role in early reading acquisition, it made sense to screen children's ability early on in education. Deficits in phonemic awareness are typical of early childhood children with emergent reading difficulties. The theoretical framework supporting this study draws on the tenets of both critical theory and social justice theory.

Critical theory represents a broad school of thought that critiques the nature of power relationships in a culture and explores ways to emancipate members oppressed within the system.

The following research questions guided our study: How did a ten-week culturally responsive Music and Movement Program impact the phonemic awareness abilities of emergent multilingual learners?

Keywords*: inclusive and culturally responsive music; MLL, phonemic awareness; emergent multilingual learners*

Introduction

The U.S. public school system has experienced a "demographic milestone" According to the National Center for Educational Statistics (2024), the percentage of English language learners enrolled in public school increased from 9.4% in 2011 (about 4.6million students) to 10.6% in 2021 (about 5.3 million students) (NCES, 2024). By 2040, a third of the nation's school children younger than 17 are estimated to either be immigrants themselves or the child of an immigrant.

Further, children who come from other countries are usually able to speak more than one language; multilingual learners (MLLs) are students who in the process of acquiring proficiency in multiple languages. Learning multiple languages can provide cognitive advantages, such as improved problem-solving skills and better multitasking abilities, as well as social benefits, like greater cultural awareness and empathy. However, with research indicating that MLLs who struggle with overall low levels of literacy often do not have sufficient phonemic awareness skills, the aim of this study was to assess the effects of music and movement program on multilingual learners, (García, et al., 2018).

Given the marked variability in children's language and literacy skills when they arrive at kindergarten, which usually spans the age ranges of five to six (Reardon, 2013), and the overwhelming evidence that kindergarten skills predict later reading comprehension and school success (Stanovich, 2009), one primary goal of early childhood classrooms is to promote foundational oral language skills; a critical part of learning oral language and applying it to learning to read is phonemic awareness, (Morrow, 2019).

Phonemic awareness is a critical element that is directly connected to oral language (Morrow, 2019; & Goldenberg, 2008), and there has been a renewed interest in when it should be taught in early childhood classrooms, as it also is a predictor of children's early reading achievement (Lawson, et al., 2022). Phonemic awareness is the ability to recognize and manipulate the individual sounds (phonemes) in spoken words (Morrow, 2019). It is a critical skill for learning to read because it helps children understand that words are made up of distinct sounds, which can be segmented (broken apart) and blended (put together) to form words.

This skill includes the ability to hear, identify, and play with phonemes, and it is a key component of phonological awareness, which also includes understanding larger units of sound like syllables and rhymes (Tracey & Morrow, 2017). Children need to know how to make connections between letters and sounds, typically by the end of kindergarten (Kilpatrick, 2015). Phonemic awareness is an important predictor of later reading success, as there is a one-to-one correspondence between a child's phonemic awareness ability by the end of kindergarten and their capability to read by the end of third grade (Kilpatrick, 2015).

Screening or assessing phonemic awareness typically occurs early in the kindergarten year and is typically monitored three times per year using the *A test for assessing phonemic awareness in young children* (Yopp, 1995). When assessing children's phonological awareness skills, it is useful to understand that by the end of kindergarten, 80-90% of typical students have achieved phonemic awareness. However, if children leave kindergarten or first grade without having had developed phonemic awareness, it will become difficult for them to learn to read by the end of third grade (Cummins, 2021).

The amount of pre-existing oral language that children have varies. Some children may have been exposed to phonetic concepts, which are the various aspects and skills related to understanding and manipulating phonemes, which are the smallest units of sound in a language. These concepts are foundational for developing reading and spelling abilities. Key phonemic concepts include identifying individual sounds in words, for example, recognizing the /b/ sound in 'bat' and phoneme segmentation, which is the ability to break a word down into its individual sounds, such as segmenting the word 'dog'

into /d/ /o/ and /g/. Phonemic concepts also include phonemic substitution, deletion, and addition of sounds. Typically, young children in the early childhood period, which is typically considered to be between the ages of five and eight come to school having had differing experiences with phonetic concepts; their familiarity with the concept depends on the amount of speaking and language experiences with adults and peers they have engaged in, the number of books read aloud in the home and school and playing with nursery rhymes and word games (Tracey & Morrow, 2017).

Melby-Lervag and Lervag (2012) found that first-language ability literacy could not be studied in second-language learning because nearly all the eligible studies assumed first-language ability. As a result, Morrow (2019), noted that cross-linguistic studies to a large degree have depended upon the assumption that children have attained first-language ability before second-language classroom exposure. However, the importance of considering first-language ability in second-language learning is crucial (Atwell et al., 2010). For example, Cummins (2021), found Spanish receptive vocabulary ability was not related to English phonemic awareness with children about to enter kindergarten. Riccio and Imhoff (2024) reported similar results, but only for children with weak Spanish-receptive vocabulary skills upon entry into kindergarten. For children with strong Spanish-receptive vocabulary skills, Spanish vocabulary was related to English phonemic awareness,

It is usually simple to provide extra help for children with phonemic awareness. Skills such as phonological awareness are metalinguistic, which is the understanding of how language works and how it changes ad adapts in different circumstances "and are known to transfer across languages" (Lawson, et al., 2022). Phonemic awareness has been found to be correlated between Spanish and English, consequently it is educationally valid to measure a Spanish-dominant student's phonemic awareness skills in Spanish to better predict their reading ability in English, even if they are receiving English only instruction. However, children who speak predominantly Spanish should be tested by The *Test of Phonological Awareness in Spanish* (TPAS), (Riccio & Imhoff, 2024), which measures phonological awareness ability in Spanish-speaking children. The TPAS can be used to help identify children who may need assistance from instructional activities to improve their phonemic awareness abilities to aid reading instruction (Riccio & Imhoff, 2024).

Traditional instructional methods and curriculum designs do not fully meet the needs of multilingual students, resulting in inequitable educational outcomes. MLL students require more tailored interventions that address their unique linguistic and academic challenges. By adapting the curriculum and instructional strategies, we can create a more inclusive and supportive learning environment that promotes the academic success of multilingual learners. Music can promote back-and-forth conversations and self-regulation skills, which can lead to greater language and literacy

skills. “Specifically, music has been used with children with communication disorders to practice the turn-taking necessary in conversational dialog, and children who have more opportunities to engage in back-and-forth conversations during the preschool years tend to have better language skills” (Rowe, et al., 2023, pp. 378).

Using music and movement to teach students phonemic awareness has recently been regarded as an equitable way to teach early childhood students. Music stimulates language learning, builds phonological and phonemic awareness, and enhances language skills (Melby-Lerva˚g, et al., 2012). MLLs who participate in early childhood music programs also improve their fine and gross motor skills and experience gains in cognitive, social, emotional, and musical skills (Au, 2011; Anthony & Francis, 2022; Lundetræ, & Thomson, 2018). Actively listening to songs and nursery rhymes introduces children to the specific sounds and language patterns of English, and singing in another language can improve learning how to speak it, for both multilingual learners and native-English speakers, (Cummins, 2021).

The goal for the study was to create an inclusive (Gay, 2010) and culturally responsive music and movement program for all children, concentrating on MLLs. The program allowed them to learn phonemic awareness in a joyful way by moving their bodies to the sounds of music. Given that phonemic awareness skills play an important role in early reading acquisition, it made sense to screen children’s ability early on in education. Deficits in phonemic awareness are typical of early childhood children with emergent reading difficulties (Moats, 2016).

The theoretical framework supporting this study draws on the tenets of both critical theory (Madison, 2005; Popkewitz, 1998) and social justice theory (Kincheloe &McLaren, 2002). Critical theory represents a broad school of thought that critiques the nature of power relationships in a culture and explores ways to emancipate members oppressed within the system.

The following research questions guided our study:

How did a ten-week culturally responsive Music and Movement Program impact the phonemic awareness abilities of emergent multilingual learners?

Literature Review

Music and Literacy Development

Recently, growing attention has been paid to the relationship between young children and the use of music and movement in connection to their phonemic awareness skills (Cumming, et al., 2015). Current research focuses on the neural overlap of music and language processing. Sound processing is an essential aspect of phonological perception (Angulo-Perkins & Concha, 2014), while highly

developed sound processing is also needed to learn the sound-letter correspondences (Melby-Lerva˚g, et al., 2012). Consequently, using the body has the potential to improve recall and enhance new learning. Movements that are meaningfully integrated into the learning task have been recognized as especially beneficial (Smith & Read, 2022). The largest body of research on the relationship between music and oral language focuses on links between music experience and children's phonological awareness skills, or the ability to recognize, discriminate, and manipulate the sounds of one's language (Anthony & Francis, 2022).

Moreover, Damsgard and Nielsen (2022), investigated the effects of children's prereading and word-reading skills when coupled with music and movement; their findings demonstrated that the presence of bodily engagement in five- and six-year-old children had significant differences with long-term effects following the retention period. Damsgard and Nielsen (2022), maintain, "It is important to have high bodily engagement and task integration to improve learning efficiency for long-lasting gains in the context of letter-sound knowledge (Damsgard and Nielsen, 2022, p.1711). Using music and movement to teach phonemic awareness can help educators strengthen important neural pathways in the brain that provide a foundation for decoding as well as orthographic mapping of words.

Research, specifically in early childhood education, recently pointed to the fact that having children move their bodies to recreate specific letters, shapes and sounds contributes to their understanding of phonemic awareness (Cummins, 2021). Following these recommendations from research, (Angula-Perkins, et al., 2014; Cummings, et al., 2015; Damsgaard & Nielsen, 2022), scholars found that when music and movement programs are used as part of regular literacy practices in preschool and kindergarten, they create higher levels of understanding in letter-sound correspondence (Damsgard & Nielsen, 2022; Lundetræ, & Thomson, 2018).

There are three aspects of phonemic awareness that are important for teachers of MLLs to incorporate into their phonemic awareness instruction: reading or singing chorally with a group; explicit explanations of unknown words that include contextual support through real objects, pictures or drawings, gestures, examples, and demonstrations, [as shown in the music and movement curriculum]; and practice in pronouncing sounds in words through comprehension lessons.

Growing concerns about English reading success for young MLL children abound (U.S. Department of Education, 2021). Although researchers have called for more studies on the development of English reading ability among MLL learners, trying to understand the influence of varying levels of specific aspects of language ability on this development has been problematic (August et al., 2010). Growing concerns about English reading success for young MLLs proliferate (U.S. Department of Education, 2024). Although researchers have called for more studies on the

development of English reading ability among MLL learners, trying to understand the influence of varying levels of specific aspects of language ability on this development has been challenging (August et al., 2010). This difficulty arises from the intersection of numerous factors such as the learners' native language proficiency, socio-economic background, and the quality of language instruction they receive. Moreover, the diversity in the languages spoken by MLL students adds another layer of difficulty in crafting one-size-fits-all approaches to phonemic awareness instruction, (García, 2018).

There is a paucity in the research regarding phonemic awareness instruction and MLLs. Deficiencies of adequately developed phonemic awareness is troubling as these skills are watched as the best predictor for reading ability by third grade (Smith & Read, 2020). Segmentation and blending are considered the most important 'subskills' for young children to have acquired for beginning reading (Yeong & Rickard Liow, 2012). An adequate level of these skills will allow the early childhood students to decode words during the emergent stages of literacy (Levya, et al., 2019).

Methods

Music is a way for all children to experience rich language in an authentic and risk-free way. All children can join in and feel comfortable participating at their own level of ability or choice of language, regardless of their language or literacy background (Peregoy & Boyle, 2013). Music also presents opportunities for developing automaticity, knowing what to say and producing language without pauses (Cummins, 2021; Goldenberg, 2008). To enhance the culturally responsive nature of the program (Gay, 2010), teachers can provide emergent MLLs opportunities to teach their classmates their own cultural songs and dances. This reciprocity in having the emergent multilingual leaners teach emergent native English speakers builds upon the idea that all languages are equally valued (Cummins, 2021).

Moreover, early childhood educators can reinforce the fact that children's language and emergent literacy competencies that are well developed in one language help support development of language and literacy in other languages. Music- based activities may be effective, especially for emergent MLLs because they provide engaging, developmentally appropriate, and culturally relevant opportunities for these students to express themselves (Au, 2011). The use of music in kindergarten classrooms is not only associated with academic benefits, but it also provides practical and equitable channels to enhance social interaction for students through flexible, child-centered activities (Dickerson & Donner, 2022).

Context

All interviews, observations, and artifact collection occurred at a PreK-5 school located in a suburban school district in the mid-Atlantic United States. The school serves a community of English-speaking White (77%) and Spanish speaking families (21%), with 41% of the families receiving free and/or reduced lunch at this school, 49% of students scoring at or above the proficient level for math, and 42% scoring at or above that level for reading.

The Music and Movement Program

The Music and Movement Program showcases a daily 20-minute videos which is embedded in teacher's literacy instructional time. Each teacher used the program three to five days a week for ten weeks. Every video showcases letters (and phonemes, and diagraphs, sight words) and the sounds they make. The video also displays different words that have the same beginning sound(s). The Music and Movement Curriculum contains a crucial component in its curricula; it demands that the children get up and out of their seats to respond to the music and form the letters on the screen with their bodies and sing the sounds the letters make, as they are guided by a teacher. The videos progress in complexity and feature sounds, letters, and words in different languages. Most importantly, the videos focus on a wide a range of diverse children of many cultures and ethnicities, as well as differently abled children; the children interact to the various videos, modeling the desired behaviors while engaging music plays.
Participants

Researchers used convenience sampling to select three Kindergarten teacher-participants. The researchers spoke to all early childhood teachers at a faculty meeting and the three Kindergarten teachers volunteered to participate in the study. Of the three participants, one teacher had taught in preschool and kindergarten for 10 years; one had taught kindergarten for 27 years; and the other teacher had taught for three years. They each signed informed consent. The principal of the school spoke to the families of the three classes at a special meeting and all parents gave assent for their children to participate in the ten-week program.

The students in two of the three Kindergarten classes were given the music and movement program. Two classes of students, (Na=20) and (Nb = 20), received the music and movement program and served as the treatment groups. Learners in (Na=20) included eight Caucasian children, including three students with Individual Education Plans (IEPS). IEPs are the education plans for children who receive special education services in and out of the classroom. IEPs are formal plans that detail the special education services and supports a school will provide to meet the unique needs a student with a disability. Five of the children were emergent MLLs, and seven were diverse. In the second treatment

group (Nb=20), six children had IEPS, seven children were Caucasian and three of them had IEPS, and seven children were MLLs, and two of them had IEPs. The third kindergarten class did not receive the music and movement curriculum and served as the control group (Nc=20 students). The control classroom (Nc=20), (without receiving the Music and Movement Program), was comprised of children with 12 Individual Education Plans (IEPs). Seven of the children with IEPS were Caucasian, and five were Latinx MLLs, all received regular classroom instruction. The rest of the class included four Caucasian children. The researchers administered the pre-tests and the post-tests of *A test for assessing phonemic awareness in young children* (Yopp, 1985) to the students in the control classroom.

Data Collection

The researchers employed a mixed-methods design, consisting of both qualitative and quantitative (quasi-experimental) data collection. The quantitative part of the study involved the implementation a of music and movement program. There were two groups of students: two kindergarten classes (Na=20) and (Nb =20) in the treatment group and one kindergarten class in (N=20) the control group. For the qualitative portion, a Grounded Theory approach was used (Corbin & Strauss, 1990). Additionally, students in both groups were quantitatively assessed pre-test and post-test using *A test for assessing phonemic awareness in young children* (Yopp, 1995).

For qualitative data, researchers conducted the open-coding procedures to identify key variables of the students' improvement in phonemic awareness as teacher-participants used the ten-week phonemic awareness music and movement curriculum (Corbin & Strauss, 1990). In the research meetings, researchers narrowed down the codes, categories, and collapsed data into themes. The initial list of codes, categories, and themes were compared and aligned with theory and literature dealing with phonemic awareness and the use of music and movement (Yopp, 1995; Corbin & Strauss,1990). The list of codes, categories, and themes were individually tested by the three researchers. The results of the first comparison of data analysis assisted in determining the final code list.

The qualitative research was collected by conducting semi-structured interviews with the teacher participants; the researchers asked the teacher- participant to identify their perceptions of student participation, motivation, and engagement during the ten-week music and movement program. After the ten-week program concluded, the researchers asked for teacher-participants' thoughts and perceptions about the music and movement program and to document their ideas of how the program might improve students' phonemic awareness progress in the future.

Data Analysis

To collect quantitative data, students in both groups were assessed pre-test and post-test using (Yopp, 1995). The assessment data was analyzed both individually and collectively. Pre- and post-group means/averages and standard deviations of pre- and post-assessment student data were compared. Before comparing the difference between the control and treatment groups and tracing the change from pre- to post-assessments in students' phonemic awareness, we first ran diagnostic tests for normality. Findings for all levels from the Shapiro-Wilk test revealed significant results ($p < 0.05$), indicating that the normality assumption has been violated. Since we did not meet the normality assumption for the data, we ran non-parametric tests (i.e., Wilcoxon Signed Rank and Mann-Whitney U tests) for all statistical comparisons.

Statistical Findings

Wilcoxon Signed Ranks tests showed that students in the treatment group significantly improved the number of correct segments (from 39 to 53) and the number of correctly segmented words (from 13 to 20) from pre- to post-assessment; $\chi2 = 3.925$, $p < 0.001$; and $\chi2 = 4.014$, $p < 0.001$, respectively. We also examined the change for the students in the control group and found a significant result ($\chi2 = 3.623$, $p <$ er of correctly segmented words. Students in the control group raised their scores from 34 to 0.001; and $\chi2 = 3.630$, $p < 0.001$, respectively for the number of correct segments and the numb 50 (phonemes) and 10 to 19 (words).

As the treatment students' phonemic awareness scores in their post-assessment were drastically higher than the control students' scores, we ran the Mann-Whitney U tests, which indicated there was no significance, having p-values close to the 0.05 alpha level ($U = 251.5$, $p = 0.085$; and $U = 250.5$, $p = 0.081$, respectively for the number of correct segments and the number of correctly segmented words). These findings show that, while the Music and Movement program and the related curriculum bring slightly higher scores for students' phonemic awareness in the treatment group, the difference between the control and treatment groups was not statistically significant.

Data from pre- and post-interviews and their transcriptions were coded through a series of iterations bound by the research question. The data were coded using the values and process coding strategies (Saldaña, 2009). The researchers first conducted open-coding procedures to identify key variables of the children's improvement (i.e., process, practices) from pre- to post teacher interviews in using music and movement in the literacy block to increase phonemic awareness and to increase culturally responsive learning experiences with all their students in the two classes (NA = 20) and Nb=20) (Corbin & Strauss, 1990). The researchers also conducted semi-formal observations of the students as they engaged in the program and took researcher journal notes, to triangulate the data.

For the qualitative portion, a grounded theory approach was used (Corbin & Strauss, 1990). Data from interviews and observations were coded through a series of iterations bound by the research question. The data were coded using the values process strategy (Saldaña, 2009). The researchers conducted the open-coding procedures to identify key variables of the students' improvement in phonemic awareness as teacher-participants used the ten-week phonemic awareness music and movement curriculum (Corbin & Strauss, 1990). In the research meetings, researchers narrowed down the codes, categories, and collapsed data into themes. The initial list of codes, categories, and themes were compared and aligned with theory and literature dealing with phonemic awareness and the use of music and movement. The list of codes, categories, and themes were individually tested by the first two authors, and interrater reliability of 92% was reached. The results of the first comparison of initial codes assisted in determining the final code list. Codes from the interviews included: how music and movement program helped in promoting phonemic awareness skills, how it promoted teacher's interest and knowledge about phonemic awareness, the effect on motivation on students, and attitudes about parent involvement in schools.

Additionally, the data from the transcribed interviews were synthesized to draw out statements or vignettes that best illuminated the participants' thoughts about the Music and Movement Program (Anfara et al., 2002). All data was analyzed to determine the number of meaning segments for each theme, category, and code. The three themes that emerged were:
Increased student motivation; Increased whole class participation, Increased home school connections.

Results

We interpret these findings in two ways: 1) as our study utilized a quasi-experimental design, there was no way for us to control or ascertain that the control teacher did not use any music or did not incorporate movement in her daily literacy instruction. 2) As the difference between the control and experimental groups was not significant, based on our qualitative findings we still recommend preschool teachers to utilize the Music and Movement curriculum (or any similar instructional program) to support students' phonemic awareness in a more engaging and culturally responsive method.

Both classroom teachers reported the Music and Movement Curriculum sparked student motivation levels in their classrooms, especially with the MLLs. This is significant. Further, both classroom teachers reported a newfound connection between home and school. This was an unexpected but significant outcome of the study.

Teacher A stated:

> I noticed an increase in reading levels across the board after the ten-week curriculum was over as well as their phonemic awareness levels. However, what really made me the most thrilled was seeing all my MLLs and other children who would never participate in any kind of class activity run to rug when it was time for music and movement. Some of my MLLs even modeled dances from home. Then I brought some books in that connected with the music. It was great. I even had a mom from the Caribbean come in and model dances for us. I felt it helped with phonemic awareness, but it helped me feel more connected to students as well. Parents were given letters explaining the program, and some came in to watch. A few of my diverse parents volunteered to model dances and brought in food from their home countries. I felt that was almost more important than the literacy skills.

Teacher B concurred. She stated that:

> I was skeptical about this program at first. However, when I witnessed even my most reluctant readers and the kids who give me the hardest time get excited, I knew that there had to be something there. I felt a change to their reading and their phonemic awareness levels. The MLLs finally enjoyed something related to reading. It kinda felt like they belonged. Also, what was really a sudden change was that moms of my students who are, um, more challenged, my MLLs and my special eds who have emotional issues started to come to school more. They wanted to see how to support this new learning at home.
>
> According to Dornyei and Csizer (2012), motivation is an important issue in language acquisition, and MLLs who are motivated are more prone to engage in language learning activities persist in their efforts. Moreover, a study by Yang and Guo (2018) found that support, particularly from peers in the classroom, can meaningfully influence MLLs motivation in language acquisition. Many MLLs must deal with many aspects that are barriers improving their language; motivation is one of the components that affect the language-learning processes and motivation is a crucial factor in language learning (Oroujlou & Vahedi, 2011). Therefore, since this study had such a substantial increase in improving MLLs motivation to participate in whole-class literacy activities.

Discussion

As the United States has seen an increase in immigration (Reardon, 2013) and schools incorporate larger numbers of immigrant children, many of whom are MLs, parent involvement can

provide a significant resource for teachers and students (Protacio & Edwards, 2015). Educators must also be aware of the importance of making home-school connection in the early years (Goldenberg, 2021). Previous research (Moll, et al., 1992) indicates that immigrant families, especially those unfamiliar with mainstream practices, may not know how they can support their young children in school. However, Pahal and Roswell (2010), suggest that educators encourage families to bring in their culture through artifacts from home; anything that embodies them as a people through stories, food, and sharing experiences. These exchanges and experiences have the capacity to create authentic and necessary connections between schools and homes.

Moreover, incorporating a policy in which parents or caregivers are invited to observe, interact, and demonstrate cultural practices should become an integral part of this or any music and movement program. For example, it was a delight yet such a rare experience for Teacher A to have a mother of one of her students in her classroom, demonstrating a part of her culture. Teacher B also spoke of the newfound support of parents in her classroom. These efforts led to the formation of stronger home-school partnerships that can positively affect children's learning. According to Dearing et al. (2006), there is increasing evidence that high levels of family involvement in schools are associated with high levels of child literacy achievement.

The role of parental involvement in school-based literacy learning is a vital one. Moreover, we know that reciprocal partnerships between teachers and parents are evident in cases in which strong home-school partnerships exist (Epstein & Sanders, 2006). As classrooms become more culturally and linguistically diverse, educators can create a pathway for parents of MLLs to enter classrooms; parents can become acquainted and participate in other literacy practices, such as working with children who need more assistance with phonemic awareness skills.

Conclusion

Music- based activities may be effective for all children, especially emergent MLLs because they provide engaging, developmentally appropriate, and culturally relevant opportunities for these students to express themselves (Au, 2011). The use of music in kindergarten classrooms is not only associated with academic benefits, but it also provides practical and equitable channels to enhance social interaction for students through flexible, child- centered activities (Paquette & Rieg, 2008). Furthermore, phonemic awareness is closely related to word recognition, which is a strong predictor of reading comprehension (Rojas, et al., 2022).

It is important that all literacy instruction have meaning, so that the words and sounds students are manipulating are connected to authentic texts. Teachers can teach phonemic awareness while also explicitly teaching vocabulary words, their meaning, and their pronunciation to emergent MLLs

(Peregoy & Boyle, 2013). Tapping into multiple modes is a responsive, developmentally appropriate approach that ensures culturally, and linguistically diverse learners have opportunities to access, understand, and express learning. Teaching that supports nonlinguistic modes (gestural, visual, spatial) ensures multilingual learners can access the content (McCormick, et al., 2023). Additionally, incorporating multimodal learning offers alternate means of assessment and student choice to express their learning through various modes. Children can show what they have learned through visuals or movement and gestures instead of speaking or writing.

Although educators recognize the importance of phonemic awareness and its relationship to reading, it is something that is typically indirectly taught through reading aloud, singing songs, and nursery rhymes (Morrow, 2019). Phonemic awareness is a critical element for children's ability to learn to read. Therefore, it is a skill that needs to be assessed and then directly taught to the children who demonstrate a need for instruction. Children need to know how to make connections between letters and sounds, typically by the end of kindergarten. Phonemic awareness is an important predictor of later reading success, as there is a one-to-one correspondence between a child's phonemic awareness ability by the end of kindergarten and their capability to read by the end of third grade (Lawson, et al., 2022). Therefore, it is crucial that MLL learners, especially those who are at the end of Pre-K and at the end of kindergarten are engaged in phonemic awareness activities and regularly assessed to ensure their literacy success in later grades.

There were limitations to this study. It was conducted with two kindergarten teachers in a middle-class suburban neighborhood. The study only lasted for ten weeks. Future research studies might improve these limitations; the researchers might conduct this program with a larger group of teachers in totally culturally and linguistically diverse populations, for a more sustained period (Cummins, 2021). The United States has seen an increase in the number of MLLs (Protracio, et al., 2020). Teachers may have little experience in working with families from culturally and linguistically diverse backgrounds.

To extend the benefit of literacy programs, teachers can also make changes in the classroom. To build on children's funds of knowledge (Moll, et al., 1992), teachers might incorporate some of the methods that children are exposed to at home (e.g., the way oral language is used in homes to tell stories, nursey rhymes, and songs) into the curriculum implementations during instruction (Leyva, 2019). Classroom dialogues can engage students and encourage them to make more connections between known literacy concepts and language from their everyday life (Peters, et al., 2008).

Statements and Declarations

There were no conflicts of interest, the researchers received no funding sources, and there were no conflicts of interest involved in this research project and paper.

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