Language Through Music: Bridging the Opportunity Gap in the California ELD Classroom

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Abstract

Because long-term English language learners (LTELs) in California normatively take two hours of English language instruction beginning in middle school, their schedules disallow participation in electives, such as arts, representing a significant opportunity gap. This mixed methods study examined the student, parent, and teacher experiences as well as the student English language development outcomes of a pilot program undertaken in one Southern California school district, in which one class of 17 LTEL students were placed into a choir class that embedded ELD standards into the curriculum. After one semester of the pilot program, qualitative data in the form of interviews, journals, and a focus group indicated that the program improved social-emotional outcomes for LTEL students and was highly supported by their parents, while teachers indicated that the program was positive, but needed further support in order to work well as a regular course offering. Quantitative results derived from ANCOVA analyses of English language assessments indicated that the students in the program significantly improved in their English development in comparison to a demographically matched control group from the same district. Implications for practice and further research are discussed.

Introduction and Background

English Language Learners (ELLs) make up almost 10% of all U.S. K-12 students, and are the fastest-growing student population in this country; yet they remain highly underserved, as evidenced by graduation rates far below those of their native English-speaking peers, lower performance on standardized tests and lower achievement in terms of grades (Callahan & Shifrer, 2012; Fry, 2007; NCES, 2019; NCTE, 2008). These achievement gaps between ELLs and their native English-speaking counterparts are wider in secondary school than in the elementary years (Olsen, 2010), a fact that is doubly problematic, as ELLs fall further behind as the stakes only rise throughout middle and high school. In fact, ELLs are 31% less likely to complete high school than their peers who speak English at home (NCTE, 2008). Callahan and Shifrer (2012) posited that ELLs generally do not receive adequate academic preparation to be successful in college, likely due to a combination of fewer opportunities to learn, lower English language proficiency, and identification as low-performing students by school agents.

Driven by a recognition that ELLs need a wider system of support to increase their learning, the Bilingual Education Act of 1968 (BEA; Title VII) was amended in 2002 as the English Language Acquisition, Language Enhancement, and Academic Achievement Act (Title III of NCLB). The Act provides several models for the delivery of academic instruction and support to the nation's growing populations of ELLs, from bilingual education to sheltered English immersion.

In California, the ELL population represents 20.2% of total school enrollment, more than double the national average of 9.6% (NCES, 2020). In this state, all public schools must deliver instruction to ELLs "overwhelmingly in English" since the passage of Proposition 227 in 1998 (NCTE, 2008). Because of this, sheltered English immersion is the normative model for educating ELLs in elementary schools, in which these students are placed in English-only classrooms with an instructional aide to provide scaffolds and differentiated lessons within the classroom, or in rare cases, pull-out time with a specialist (Goldenberg, 2013).

Once ELL students get to the secondary level in California schools, those who have not reclassified as fluent in English in the six years prior to middle school are re-designated as Long-Term English Learners, or LTELS (CA Ed Code § 313.1). California frameworks for English learners require "both designated (English only) and integrated ELD (English embedded in other subjects)" instruction for LTEL learners (Santibañez & Umansky, 2018, p. 10). In secondary schools, this often means that LTELs receive a double block of English language instruction: one hour in a standardized English Language Arts classroom with other students, plus one hour in an English Language Development (ELD) course with LTELs only, taught by a certified ELD teacher. This double block prevents LTELs from participating in electives such as music, art, or dance in a standard six-period day, representing a serious *opportunity gap* relative to their fluent English-speaking peers. Some research suggests that this strategy of offering designated ELD courses in addition to the normal core schedule including English language arts is common across other states in the U.S. (Hanover Research, 2017).

Proponents of sheltered English instruction exemplified in this practice of including English plus a second hour of ELD instruction for LTELs (e.g. Olsen, 2014), focus on the extra help needed to ideally catch students up with their native English speaking grade level peers. However, this structure "has yet to demonstrate more than a very modest effect on student learning" (Goldenberg, 2013, p. 7) and does not take into account the effects of the policy on access to core arts instruction. Indeed, research has extensively documented LTELs' lack of

access to core curricular areas (Mendoza, 2019; Santibañez & Umansky, 2018; Umansky et al., 2015). While California ELD standards call for integration of ELD instruction across the curriculum and specify that students should have access to all subjects (California Department of Education, 2012), the call for designated ELD instruction is often incompatible with LTELs' ability to take arts electives (Mendoza, 2019). One alternative may be to offer ELD-embedded electives to LTEL students, with courses co-taught by a content area arts teacher and an ELD teacher. Indeed, existing research would suggest that arts electives can be a potential source of language learning, particularly in electives such as music and theater arts that provide high levels of English language input (Engh, 2013). Additionally, participation in arts electives connects students to the broader school community outside of the ELD classroom (Welch et al., 2014), with potential social-emotional benefits (Bailey & Davidson, 2002). Thus, it may be possible to eliminate the opportunity gap by designing arts electives that are differentiated to incorporate the tenets of English language development pedagogy for any LTEL students who take them.

Purpose and Research Questions

The purpose of this study was to evaluate English language acquisition experiences and outcomes for LTELs in one middle school who participated in a choral music elective course, in which ELD standards were incorporated in place of a designated ELD course. The research questions were: 1) What are the experiences of long-term English language learners who take a vocal music course that integrates ELD instruction? and 2) In what ways does taking the choir course influence English language achievement of LTELs?

Theoretical Framework

Krashen's (1989) Theory of Second Language Acquisition, which served as the theoretical framework for this study, points to the medium of instruction—the *how*—being far more important than the subject matter—the *what*—in driving student progress in second language acquisition. More specifically, the affective filter hypothesis suggests that if the mode of instruction is pleasurable, a higher level of content synthesis can take place. The best way to teach speaking, according to this view, is to provide high levels of comprehensible input in the target language in a relatively stress-free environment (Krashen, 1982, pp. 21-22). Because choir courses combine music, movement, and high levels of interaction between peers, students often experience the class as more "fun" and less stressful than a traditional English class; yet, the high levels of English language production required in the class offer significant opportunities for comprehensible English input. Krashen's (1989) affective filter hypothesis thereby explains, in theory, why ELL students might acquire deeper target language skills through access to an arts course such as choir; yet, this relationship has not been empirically tested in a K-12 setting.

The literature supports the application of Krashen's (1982) theory to a middle-school choir context. According to Shen (2009), anxiety reduction is particularly important for adolescent language learners. Music has also been associated with lowered depressive symptoms, higher self-esteem, positive social emotional outcomes, and cognitive benefits (Bailey & Davidson, 2002; Welch et al., 2014). Schoepp (2001) stated that songs can help lower students' affective filter, thereby preparing students to better synthesize a new language. Further research has asserted this connection between song and language development (Engh, 2013).

Literature Review

The use of music as a learning tool has a long history in both practice and research. The literature points to a host of benefits to students when music is incorporated into lessons, ranging from neurological & physical well-being to social-emotional health (Hurst, 2014).

General Benefits of Music Education

There have been many studies focused on the positive psychological and physiological effects of music on humans (Hurst, 2014). In terms of neurological and psychological benefits, singing has been shown to stimulate higher brain function as well as the production of hormones related to reduced stress (Clift & Hancox, 2010). Kreutz et al. (2003). Similarly, researchers discovered increased neuro-humoral responses and even immunogenic benefits in participants who sang in groups. Other studies also affirm that students' level of comfort, emotional state and healthy bodily functions are increased when performing music through positive chemical reactions that encourage neuro-mental actions in the brain (Akhmadullina et al., 2016). Paparo (2016) argued that a more global somatic benefit to singing is experienced when movement is incorporated, as students experience controlled breathing and physical balance. Controlled breathing and subsequent positive emotional outcomes have also been noted by other researchers (e.g., Clift & Hancox, 2010, Kreutz et al., 2003).

Rafiee et al. (2010), citing Krashen (1989), demonstrated that classrooms incorporating creative arts such as music promoted an environment in which students' anxiety levels were lowered and greater learning occurred. In general, classrooms in which music is used as a teaching tool have better academic results in all subjects (Paquette & Rieg, 2008).

The social-emotional needs of young learners can also be addressed through music. Welch et al. (2014) suggested that purposeful engagement with music can lead to greater feelings of inclusivity and higher self-esteem, which can benefit marginalized students. According to Parker (2009), choir acts similarly to sports teams in assisting high schoolers to feel connected rather than socially isolated. She argued that choir teaches pro-social behaviors that lead to positive self-imaging, as students learn to work together toward a common goal and to identify how their individual contributions positively affect the whole group.

Music as a Catalyst for Language Learning

Evidence also suggests that music and language are connected within the brain. Kolb (1996) affirmed music's role in literacy, noting that children embrace the "wholeness of language" presented in songs. She found that sight vocabulary, reading comprehension and reading fluency all increase when music is added as a pedagogical learning tool. This finding was corroborated by Moss (2013) who found that immigrant and refugee ELL students in a middle school outperformed their peers on standardized tests after participating in their school's band program (Moss, 2013). Moss asserted that because the interpretation of musical symbols and notes activates the same center of the brain as is utilized in the interpretation of letters, music instruction effectively acts as language activity, increasing neural activity and strengthening literacy skills. Brain research conducted by Gordon et al. (2015) also found a connection between neural pathways for language and music. The ability to command language conventions, such as syntax, and the ability to create rhythm share the same subcortical network in the brain. In explaining how students learning English as a foreign language saw gains through the use of American pop songs, Pérez Niño (2010) also argued that "music is a

trigger that improves academic skills such as vocabulary and grammar and develops linguistic abilities" (p. 143).

Singing lyrics has been associated with many aspects of these linguistic abilities, including verbatim memory of words and phrases (Ludke et al., 2014), the ability to discern subtle word sounds (Harris, 2007) and understanding parts of speech, sentence patterns and vocabulary (Gorden et a., 2015; Saricoban & Metin, 2000). Students can learn prosody in the target language, specifically: intonation, syllable stresses and rhythm (Wilcox, 1995). Paquette and Rieg (2008) used targeted song instruction with their ELLs in both the target language and the home language, finding that students' recall of vocabulary was greatly enhanced through the incorporation of music.

Huy Le (2000) referred to the use of music as a second language learning tool that is "embryonic" in the research canon, as it has not garnered much focus thus far. Engh (2013) affirmed that despite the fact that theoretical and empirical research across several decades has consistently indicated a link between music and language learning, there is a dearth of research on processes and the outcomes of embedding music into language learning in actual practice. The research gap is particularly stark for students at the secondary level (grades 6-12) where practically no studies of this nature have been published. Engh concluded, "If connections between music and language are as strong as the literature…suggests, why is there such disparity between theoretical support and practical application in the classroom?" (p. 120). In centering the language-learning experiences and outcomes of LTELs placed in a choir class in which ELD standards were embedded, this study provides a framework for a line of research that could fill this gap in the literature.

Methods and Data Sources

This research employed a concurrent triangulated mixed methods design. The one-semester choir course with ELD standards embedded, which took the place of participants' second hour of English, was the "treatment" for the quantitative portion of the study. This followed a quasi-experimental design and the "case" for the qualitative portion of the study, which followed a case study design. Data collection followed all IRB-approved protocols.

Setting for the Study

The participating school was located in an urban Southern California district that serves nearly 17,000 TK through twelfth-grade students. There are four middle schools in the district, plus two schools that serve grades 6 through 12 and thus house middle school-aged students. The pilot program under study involved one sixth-grade class of LTEL students who were added to the existing choir class that met at the same hour as their former ELD class (the second hour of English) in the spring semester. This program was approved by the principal during the summer. A collaboration was formed with the ELD teacher and choir teacher, who co-taught the course, alongside the ELD coach, who provided additional support. The ELD teacher expressed doubt that the program would be successful, feeling that students might potentially fail to learn as much English as they otherwise would in her normal ELD course. She was persuaded to agree to the pilot program by the ELD coach, who cited research linking music instruction with language learning and pointed out that the pilot would only run in the spring semester. The ELD coach, the ELD teacher, and the choir teacher met frequently over the fall semester. They started working together prior to the students' entry into the choir

course to determine the scope and sequence of the instruction that would occur when the LTEL students were added. In order to fully cover all ELD standards and in response to the ELD teacher's concerns, the teachers decided to utilize a "pull-out" structure by taking the ELL students to a separate class on Mondays. Tuesdays through Fridays and in all performances, the ELD students participated in choir as regular members of the class, with the ELD co-teacher in the room to provide the additional support needed. Parents of the LTEL students were informed of the opportunity to join the ELD choir class in the fall and were given the choice to consent for their children to join the class or opt out and remain in the regular ELD class. All parents gave consent for their children to join the pilot program and to participate in this research that was being conducted to examine the effects of the program.

Participants

The participant/treatment group for this study consisted of 17 sixth-grade LTELs, who transitioned into the sixth-grade choir course during the second semester of the 2017-2018 school year. Ten students were male and seven were female. The students were predominantly Latino, with one Armenian and one Chinese student included. All students were on free and reduced lunch status. Parent educational attainment was low as no parents reported having a college degree. Eight of the 17 students were also designated as eligible for special education services.

Qualitative Methods

The primary investigator (PI) worked in another school within the district and was familiar with the teachers and ELD coach, which facilitated their agreement to have her as an observer in their planning and implementation of the pilot program. The PI also had a background as a choir and voice instructor, and thus was able to understand the technical language being used by the choir teacher. The second researcher did not interface with the participants, but was involved in the analysis and reporting of the data. Data collection began with participant observation of the fall planning meetings between the ELD coach and co-teachers as they negotiated the scope and sequence for the course using the ELD standards and new VAPA standards combined. During the semester, three non-participant observations in the choir classroom and two observations of choir performances were completed. There were five other observational visits outside the classroom, which included spring teacher planning meetings and parent informational meetings. Data sources also included teacher journals kept throughout the semester; individual student and parent interviews with translators utilized as needed (note that although all parents were invited to these interviews, only the mothers came to the interview sessions); and a focus group with the ELD coach, ELD teacher and choir teacher.

All interviews as well as the focus group were transcribed verbatim. The resulting transcripts were uploaded into NVivo 12 and de-identified by replacing names of people and places with pseudonyms. Field notes from observations as well as journal entries were also entered into the NVivo project.

Data were thematically analyzed utilizing processes described by Miles et al. (2014) in three cycles. In the first cycle, initial coding was done to label meaningful "chunks" of data by topic area (descriptive coding), by the actions that were described (process coding) or by significant words used by participants (in vivo coding). In the second round, these codes were

conflated into meaningful categories to produce an emerging sense of patterns in the data. In the third round, themes were interpreted from these categories and representative quotes from the data were collected to better understand the experiences of students, parents, and teachers across this program (Saldaña, 2009). Triangulation of data from the different sources (interviews, focus group, and observations) was performed to ensure the themes were corroborated by each data source type.

Quantitative Methods

For the quantitative portion of the study, a control group was used to account for maturation of the treatment group during the semester. The pool for the control group consisted of 86 sixth-grade LTEL students attending other middle/secondary schools within the same district, from which 17 were selected via statistical propensity matching in R (Austin, 2011) to be matched to the treatment group on the following demographic variables: ethnicity, special education designation, eligibility for free/reduced lunch and gender.

The hypothesis tested was that the choral music group would have a significant increase in English language acquisition after one semester in comparison to the control group. SPSS was used to perform: (a) independent samples t-tests, to see if there was a significant difference overall in grades across the semester between the treatment and control groups and (b) ANCOVA tests to evaluate the effectiveness of the program in helping LTELs to raise their academic achievement levels in comparison to the control group. All results were considered statistically significant at $p < .05$.

The independent variable was based on membership in the control or treatment groups. The dependent variable was English language proficiency, as measured by the English Language Proficiency Assessment for California (ELPAC) oral scores and overall scores from tests administered during the treatment (post-ELA grades were also collected for the purposes of running independent samples t-tests, but they were not used in the ANCOVA tests). The following covariates were used to control for prior English language acquisition: (a) pre-ELA grades taken from the fall 2017 semester and (b) California English Language Development Test (CELDT) speaking scores. The participating district supplied all data for the control and treatment groups in de-identified form at the end of the program.

Findings

Qualitative Findings

Students

The students described their experience in the program overall as *fun and meaningful*. Though some expressed trepidation in performing in public for the first time, most students indicated a sense of accomplishment when the concerts were over. One student described her first performance in this way: “When we first had our concert it was fun. It was like I'll never forget about it.” Another student indicated that, “I also think that the choir concert helped us because we were scared of singing in front of other people [at first].” This student indicated that being forced to sing made him want to practice more in order to be prepared, and that the experience also emboldened him to speak English more after the fact, because he felt he had done well.

Students expressed joy in their ability to move around in choir and appreciated not having to just sit at a desk; as one student said, “Choir is better than ELD because you can stand

up, not just sitting down the whole day, and there's different music to sing." Indeed, movement in the choir class was common; for example, the choir teacher was observed employing call and response methods that reinforced target language input with Total Physical Response (TPR), a well-established strategy for improving language acquisition via a coordinated symbiosis between academic input and body movements (Hwang et al., 2014). This physical change of pace was another aspect of the "fun" of the choir class, which students indicated was very motivating.

Another category that contributed to the *fun and meaningful* student experience of the program involved friendship. A female student reported, "The time I had in choir was fun because I made a lot of new friends." When asked to describe his time in the choir Jesus shared, "Amazing. Socially I got more friends than ever before in choir, and my friendships grew." In this choir class, LTEL students integrated with students they had not known before, creating a new sense of community as learners. Observations of the choir class indicated that ELLs were able to collaborate with their native English-speaking peers because choir classes are grouped by voice type rather than by language abilities. Thus, the LTEL students were integrated into various sections—soprano, alto, tenor, and bass—according to their natural singing range. In one instance, a female LTEL in the alto section of the choir was asked to take a solo. This experience of being elevated in an elective with her native English-speaking peers was very different from her former experiences being in the LTEL-only ELD class. Students reported this to be another motivating factor in terms of their engagement; the student who was able to sing the solo alto role, for example, took on extra academic work and was able to reclassify in order to be able to continue in choir after the pilot program described in this study ended.

The second theme relayed by students involved a perception that though they had fun in the class, *they didn't "learn" in choir.* Students overall felt that choir was non-academic and did not feel that they had learned much; this highlights a common student paradigm of what constitutes "real" learning environments. When pressed in the interviews to recall what they had learned, students were able to describe solfege, Kodaly hand signals, and could sing snippets of songs in various languages, yet they insisted in interviews that they didn't really learn anything. As one student put it, "The negatives... is that like choir, or any fun class is that, you're having fun but at the same time you're not really learning." One of the female students spoke of feeling unintelligent, and expressed fear that being in choir may have put her behind and possibly at risk of failing her ELD class.

This sense that they weren't learning was a concern to the students. Many shared that they felt a high amount of pressure from their families to master English and reclassify as Fluent English Proficient students. For example, one student shared her parents' insistence that she needed "to learn more English, to keep reading a lot" in order to reclassify. Students also shared a deep trust for their ELD teacher. They were worried that their choir teacher, who was new to them, would not be able to help them reach their target language goals. The pull-out time with their ELD teacher once per week was insufficient, they feared, to catch them up with where they would have been in an ELD-dedicated class.

A handful of students disagreed with this majority opinion; they felt that being a part of the choir was beneficial, even from a learning standpoint. One student stated, "I think that choir will be more beneficial then ELD because in ELD you learn about English and it's like a second English class, but in choir you learn about music and about parts of your body such as your lungs and more." Another student said, very simply, "The more I sing, the more words I learn."

Taken together, student experiences were mixed from their perspective. They enjoyed the course and saw it as having social and personal benefits in terms of enjoying school time and connecting with new friends, but most of the students did not understand how they could be learning English in the class, and worried about the course stunting their English language acquisition, which was very important to them. While some students requested to continue in choir the next year, others felt that it would be wiser to remain in a second hour of ELD instead, until they were able to reclassify.

Parents

The mothers interviewed were overwhelmingly positive about their children's experiences in choir. Many of them cried in interviews while describing their joy and sense of pride when seeing their child perform for the first time. They spoke of their children being happier at home and hearing them sing new songs around the house. The most significant theme gleaned from the parent interviews was how much they believed being in the choir program promoted a positive increase in their student's *self-esteem and motivation*. The fact that their children made more friends, they felt, contributed most to the students' self-esteem. One mother shared, "this program really helped her come out of her shell and have close contact with other people, other kids, and then she benefited from being able to interact with other students." Another mother indicated that her son's general level of motivation increased while in choir:

> Well, my son had a really great time in choir. From the beginning, I noticed that he really enjoyed being part of choir. He would come home, and he would sing to us all the time, even while heading home or on the way somewhere. He would hum the song and he would be very responsible and on top of things when it was time for him to go to his practices and for him to go to his events. He really wanted to make sure that he participated and was responsible about being there.

A second theme parents brought up was *learning.* Interestingly, the parents did not share their children's perception of not learning in choir. One mother said about her daughter,

> She was able to read so much more… and [was] able to pass the test that she needed to pass, but the combination of music and language made a big difference as well, so I wouldn't change that. If I did, I would want it to be that combination; [it] was a good idea.

Another mother echoed these sentiments: "She has spent many years trying to reclassify... [and] was not able to, but here it was something that just came so much more easily to her and I feel that the combination made a big difference for my daughter." Still another parent indicated a general understanding that students "don't need to only read the book. They can sing, also learning the language from the singing. That's good."

The difference between parents' perceptions of the program and their children's provided an interesting contrast. Parents were much more positive and felt their children had benefited both social-emotionally and academically from the experience. While students were split on whether they would want to continue in choir, parents were much more adamant that their students should continue to have access to electives: as one mom said,

> I think it's wrong to have him not have an elective because I would like for him to go into an elective class. I would definitely be in favor of a change that would allow my son to go into an art class along with a language.

Teachers

The two themes that emerged in the focus group with the teachers and ELD coach involved *messy beginnings* in the experience of creating and implementing this ELD-embedded choir class, and *surprising accomplishments* by students which made it overall a worthwhile endeavor. The "messiness" of the course started very early on, in the planning phase. There were no prior models from which to pull, and the ELD teacher was highly skeptical of the utility of this class; because of this, the burden of making this class work fell mostly to the choir teacher. In the focus group and his journal, the choir teacher expressed disappointment in not having enough time to plan more thoroughly with the ELD teacher and the ELD coach in those early stages. He was also faced with a large class of sixty-nine students after the LTELs joined, making management a challenge.

The beginning of the class was also "messy;" the LTEL students arrived for the spring semester in the middle of the year, and some of the original choir students expressed frustration when their teacher had to "take a step back and reintroduce the fundamentals of music and musicianship to them, which was a challenge." Parents of children in the first-semester complained, and one parent ultimately removed his son from the choir class. The choir teacher also shared in the middle of the semester that:

> The class is rather crowded, and it is difficult getting consistent seating arrangements. The Choir students (those who have been here since the first semester) are getting bored of reviewing past content. I do my best to thank them for having a positive attitude, but I know they were really excited to begin working on more difficult music. I do not want to rush past music fundamentals, but I do need to make sure that all 70 of my students are staying engaged. I saw too many of my students slouching or looking completely bored. They loved being in this choir for the first semester, but now I fear they may be turned off by the large class size and the lack of more advanced musical content being taught.

The teachers had agreed to use a "one teach - one observe" model, where the choir teacher would run the class and the ELD teacher would support LTEL students' learning. However, the choir teacher was in his first year on the job, with a very different classroom management style than the veteran ELD teacher who was already displeased at having to give up control of her students' learning four days per week. There were some disagreements early on in regard to behavior standards for students. Eventually, the two teachers came to an understanding that in choir class, the choir teacher was the manager of the room and the ELD teacher was there only to support.

All three teachers agreed that starting the program in the second semester added to the problematic nature of implementing the course. The ELD coach shared, "It was challenging because we [piloted this class] in the second semester…. Some of the students felt a little bit more intimidated, because they felt like we're invading this space that wasn't ours in the beginning."

In the end, however messy its beginnings, both the choir teacher and the ELD teacher were surprised by how much the students learned and what they accomplished during the program. They all ultimately felt the program was positive and worthwhile. The choir teacher noted that one of the LTEL students had reclassified at the end of the year and was able to enroll in his women's ensemble course for the following year:

I'm really happy to see Cristiana, how far she's come. It was a good learning experience, working with her. She's just a small example of working with a student that's very shy and how to get them to sing out. How do you get them to emote and to do all those fantastic things that a choir student should be able to do? It was really great to see her transition.

The ELD teacher, who had initially felt quite skeptical about how the course would go, was actually quite happy with the results, noting that students' Scholastic Reading Inventory (SRI) scores were very much in line with where she would have anticipated they would have been if they had continued in the ELD class. In fact, she indicated that being in the class had motivated some of the students to reclassify more quickly so they could have the option to choose arts electives the following academic year. She also noted that "I was very impressed with how they got out of their comfort zone and they would perform…. They were happy to participate in the performances."

In order to avoid the many pitfalls experienced in the early stages of this course, the teachers made suggestions for moving forward and talked about the many aspects to be coordinated for a successful program. These included implementing flexible master scheduling or block scheduling to enable students to move easily between their pull-out ELD classes and their elective, increasing parental input and student choice, and providing ongoing collaboration time for teachers.

Quantitative Findings

Initial t-tests were run to indicate whether a significant difference existed between the treatment and control groups in grades before and after the treatment. A two-tailed independent samples t-test (Table 1) demonstrated that the difference between pre-ELA grades between the treatment (M = 1.76) and control groups (M = 1.81) were not statistically significant ($t(31) = -.12$, $p > .05$); the same was found for the post-ELA grades (M=1.76 and 1.65, for the treatment and control groups respectively; $t(31) = - 1.16$, $p > .05$). Interestingly, both groups dropped in ELA grades from fall to spring, but the control group had a much steeper decline in grades between semesters (-.69) than the treatment group (-.11).

Table 1

Two Tailed Independent Samples T-Test Comparing Pre ELA Grades and Post ELA Grades Between Propensity-Matched Control Group (N=17) and Treatment Group (N=17).

	Control		Treatment				
	M	*SD*	*M*	*SD*	*df*	*t*	*p*
Pre ELA Grades	1.81	1.11	1.76	1.91	31	-.12	.85
Post ELA Grades	1.12	1.15	1.65	1.41	31	-1.16	.38

Additionally, three ANCOVAs were performed to test the main effect of the treatment on ELA development, with membership in the treatment or control group as the independent

variable. Covariates were altered with each test to control for either English Language Arts grades or California English Language Development Test (CELDT) scores prior to the treatment.

The first ANCOVA controlled for pre-treatment grades in students' English Language Arts class, and utilized the English Language Proficiency Assessment for California (ELPAC) Overall Score as the dependent variable (see Table 2). The mean for the treatment group, at 1536.88, was 1.8% higher than the mean for the control group, at 1508.94. The ANCOVA test showed a significant main effect of the treatment, $F(1, 30) = 6.30$, $p < .05$. The partial eta squared, at .173, indicated a small effect size.

Table 2

ANCOVA Results: Treatment (N=17) Versus Control (N=17), with ELPAC Overall Score as the Dependent Variable and Fall ELA Grades as the Covariate

Source	*df*	SS	*MS*	*F*	*p*	η^2
Pre ELA Grade	1	1729.52	1729.52	1.73	.198	.055
Treatment Group	1	6284.81	6284.81	6.30	.018*	.173
Error	30	29943.18	998.10			
Total	33	7661607.0				

*Note. *p < .05*

Because choir is mostly an oral medium, we determined to perform two further ANCOVA analyses to indicate the extent to which the treatment had any effect specifically on the oral subscores of the ELPAC. Therefore, the second ANCOVA again controlled for pre-ELA grades, and utilized the ELPAC Oral Score as the dependent variable (see Table 3). The mean oral score for the treatment group was 1542.71, which was 2.7% higher than the mean for the control group, at 1502.25. The ANCOVA test again indicated a significant effect of the treatment, $F(1,30) = 6.51$, $p < .05$. The partial eta squared, at .078, showed a small effect size.

Table 3

ANCOVA Results: Treatment (N=17) Versus Control (N=17), with ELPAC Oral Score as the Dependent Variable and Pre-ELA Grades as the Covariate

Source	*df*	SS	*MS*	*F*	*p*	η^2
ELA Grade Pre	1	1767.33	1767.33	.867	.359	.019
Treatment Group	1	13265.59	13265.59	6.51	.016*	.078
Error	30	61143.20	2038.11			

Total	33	76629996.0

Note. *$p < .05$

The final ANCOVA, instead of controlling for fall ELA grades, controlled for CELDT Speaking scores from the prior academic year, to determine the effect due to the treatment (participation in choir) on the ELPAC Oral score. The CELDT Speaking scores had the advantage of being a more "like" measure to the ELPAC oral score than the ELA grades, and could be interpreted as a better covariate, but they had the disadvantage of being older and less proximate to the beginning of the treatment. Given the same means listed above for the ELPAC Oral Score, performing the ANCOVA this time with the CELDT Speaking scores as the covariate, the analysis again indicated significance, $F(1,30) = 5.16$, $p < .05$. The partial eta squared, at .147, showed a small effect size, but it was almost double that of the second test with the ELA Grades as the dependent variable.

Table 4

ANCOVA Results: Treatment (N=17) Versus Control (N=17) Groups, with ELPAC Oral Score as the Dependent Variable

Source	*df*	SS	*MS*	*F*	*p*	η^2
CELDT Speak	1	34.43	34.43	.016	.899	.001
Treatment Group	1	10824.40	10824.40	5.16	.030*	.147
Error	30	62876.09	2095.87			
Total	33	76629996.0				

Note. *$p < .05$

Post-hoc tests confirmed that the assumptions of homogeneity and normality were met. Levene's test of equality of error variances was not significant, $F(1, 31) = .416$, $p > .05$. The Kolmogorov-Smirnov test of normality was not significant, $p > .05$, as was the Shapiro-Wilk test of normality, $p > .05$.

Discussion

Qualitative results indicated that students in choir and their parents found the course a satisfying experience, wherein students had fun, made friends and tried new experiences by performing in concerts. Interestingly, students did not perceive they were learning in the choir course even though quantitative results demonstrated gains in English language development that were slightly above those of the control group (see below). The majority of the students wanted to be able to continue in arts electives in the following year, though some did not due to their conviction that they would learn more English in the ELD course. A few students indicated to their ELD teacher that they were determined to reclassify as Fluent English Proficient (FEP)

in order to be able to take an elective the following year, and in fact, some were able to do that before the academic year was complete.

While the "fun" of the class and the emerging sense of connectedness to the choir community aligned to the expectation of a lowered affective filter for English learning, the fact that choir also required performing in front of an audience did make students quite nervous. Students shared that they felt high levels of anxiety prior to performing; however, they also described a sense of pride and relief after their performances, such that this aspect of the course was not a salient detractor from the overall experience of the course. The students overwhelmingly agreed that they enjoyed being able to move around in the choir classroom. The students appreciated working explicitly with their ELD teacher on Mondays to learn key concepts and then joining the choir Tuesdays-Fridays to sing with their peers; this was especially important to them, given their worries that being in choir was not helping them to learn English.

The parents expressed gratitude at seeing their students perform on stage. They described their students as happier, as they learned and practiced new songs at home. The parents indicated that they wanted their children to participate in choir the following year, or in two cases, another arts elective of more interest to their children, because they believed the arts electives held so much value for their children.

The two teachers who created and implemented the program had mixed experiences. They lamented a lack of sufficient planning time prior to the start of the program, and indicated an uneven burden due on the choir teacher, partially due to the ELD teacher's reticence to embrace the pilot program. This highlights the need to ensure full "buy-in" by all parties involved in any kind of endeavor that involves a level of co-teaching or co-creation of curriculum. Another element that made implementation difficult was that the class began in January. Since school starts in August, the choir class was already in full swing by the time the LTELs joined, and existing students were frustrated by having to relearn basic concepts. There was some concern that this frustration would spill over into these students' relationships with the LTEL students and stunt their ability to form a sense of community together, but that did not appear to occur in this case.

Even though the teachers experienced a difficult start to the program, both teachers indicated that they were surprised and pleased at the results. The ELD teacher felt that her students were happy and motivated, and determined that performing was helpful in terms of expanding their experiences. The choir teacher also felt that the program was positive for the LTELs based on their performance and engagement in the class. He was particularly touched by one of the LTELs who reclassified and chose choir the next year to become one of his leaders in the classroom.

Both teachers indicated that the program was therefore worthwhile, but also cautioned that future efforts to create and implement such a program would have to be more carefully conceived so as to avoid the difficulties encountered in this instance. They agreed that supplying adequate planning time with two fully engaged teachers was the most important and primary concern. Though most of this time would need to occur prior to the start of the class, any teachers endeavoring to create a course similar to this would also need some time to plan across the delivery of the course. They also believed that structuring the master calendar to (a) allow ELD students flexibility in attending one or two days of ELD-only instruction during each

week, and (b) starting the course in the fall rather than as a spring-only offering, would benefit students best.

Quantitative results indicate that the treatment of being in a choir course for one semester had an overall positive effect on English language achievement, as shown through both the t-test and ANCOVA results. First, though both groups had lower mean ELA grades post treatment in comparison to their mean pre-treatment grades, the drop for the treatment group was less than that of the control group. This difference was not significant statistically, but does suggest a possible narrowing of the achievement gap. Second, the ANCOVA results indicated a significant main effect of the treatment on the English language acquisition outcomes. This is particularly noteworthy given the low N of 17 for the study. Though effect sizes were small, the fact that there were significant results after just a few months of the treatment indicates that the program was effective as an alternative to a double block of English for LTELs' English language development.

These results confirm Krashen's (1982) input and affective filter hypothesis for language learning. Choir provided high levels of English language input in a fun, low-stress environment, which lowered the affective filter and provided an environment conducive to language acquisition. Though the students did not perceive themselves to be learning, the statistical analyses indicated that they did in fact learn, and at a higher rate than the control group.

Conclusion

It is important to find ways to bridge the achievement gap and to create inclusivity within the broader school community for the nation's growing number of LTELs; this is particularly pertinent in California, where the ELL population is especially significant (NCES, 2020; Olsen, 2010). This study of one such effort indicates that such a program is possible, suggesting that infusion of ELD instruction into arts curriculum to allow LTELs access to arts electives is a viable strategy to narrow the opportunity gap as well as the achievement gap for LTELs. The fact that significant results were achieved with a small sample size and relatively short program time (five months) make the results of this study quite promising. The quantitative results reveal positive academic outcomes and the qualitative data indicates a positive social-emotional experience for all participants; however, this study also reveals a need for further research.

In order for a program like this to be successful in the long-term, administrators will need to commit resources to teacher development, planning, and implementation. All ELD and VAPA teachers involved need to have "buy-in" and to feel equipped to create new curriculum together. A program such as the one described here involves some level of co-teaching, so development in co-teaching skills leaning on the co-teaching literature (e.g., Murawski, 2010) will be necessary Fully engaged ELD and VAPA teachers will also need time and resources to co-plan their curriculum to fully integrate the ELD standards into the VAPA standards to create integrated units of study. Teachers indicated that some alternative master scheduling would be necessary in order for some discreet ELD instruction to take place.

Schools and researchers would be well advised to collaborate in creating other such experimental/pilot programs, to find new ways to meet the needs of some of the United States' most underserved students. A follow-up study should be performed with a larger sample size, looking at outcomes across an entire academic year. Replicating this study with other electives (e.g., theater, media arts, band, etc.) would provide another avenue for further research. If such studies produce positive results, these programs would warrant further attention and broader

implementation in secondary schools. Teacher education and credentialing programs could also be designed to train for arts/ELD integration specialization and co-teaching models.

LTEL students in California, and in many other states or districts (Hanover Research, 2017), currently are unable to take elective courses in any form until they reclassify as fluent English proficient. It is imperative that LTEL students be afforded the same opportunities and experiences that are offered to other students in an increasingly diversified system. This opportunity gap represents a significant barrier to these students in developing interests and proclivities they may have in the arts, preventing them from participating in experiences that other students are engaged in. It also represents another barrier to full integration in the school community. It is incumbent upon researchers and educators to create, explore, and test alternatives to the double-English block that is currently in place while honoring LTELs' need for focused English instruction. This study represents one step in that direction, and may provide a template upon which other programs can be built.

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Declaration of Interest Statement
The authors declare that there is no conflict of interest.

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