

review paper

Dual language as a pedagogical tool in education for young learners

By

The corresponding author: Entesar Othman
The co-author: Eyman Mohammed
Faculty of Education - ElMarj - University of Benghazi

الملخص

يلقي هذا المقال الضوء على نتائج الدراسات البحثية الحديثة التي ركزت بشكل أساسي على برنامج التعليم اللغة المزدوج (DLE). تم جمع هذه الدراسات بشكل رئيسي باستخدام محركات البحث على شبكة الإنترنت Research Gate وGoogle Scholar. تم تقييم الدراسات من حيث مدى ملاءمتها، وتحليل وتفسير البيانات ذات الصلة، وأخيراً تم تنظيم وعرض النتائج في موضوعين رئيسيين: النجاح في تحقيق الأهداف والتحديات التي تواجه برنامج DLE. وأظهرت النتائج عدداً من الأهداف المحققة فيما يتعلق بنتائج الطلاب، فضلاً عن التحديات المختلفة التي واجهت معلمي ومديري برنامج التعلم اللغة المزدوج (DLE).

Abstract

This article sheds the light on the results of recent research studies which mainly focused on the dual language education (DLE) program. These studies were mainly collected by using the web search engines Google Scholar and Research Gate. The studies were assessed in terms of their appropriateness, analysed and interpreted pertinent data, and finally organized and presented the findings into two main category themes: The success of achieving goals and the challenges face the DLE program. The results demonstrated numbers of the achieved goals regarding students' outcomes, as well as various challenges that faced the educators and administers of DLE program.

Key words: Dual language education, two immersion, young learners, two-way bilingual education.



Introduction

The interest of bilingualism and multilingualism has been gained a great interest for many and various reasons since decades. This interest has provoked to the emergence of different forms of educational programs; in particular, for younger learners. These educational programs differentiate in terms of their policies and provisions, practice of implementations and goals. Dual language education (DLE) program is one of these "strong forms of bilingual education have bilingualism, biliteracy, and biculturalism as intended outcomes" (Baker and Wright, 2017, p. 215). The popularity of DLE program is growing in the USA due to engaging majority and minority languages. Various terms have been used to characterize this program, "including: Two-way immersion, two-way bilingual education, developmental bilingual education..., dual language education and dual language immersion." (Baker & Wright, 2017, p.215).

DLE program is defined as a form of bilingual educational programs for young learners, in which children are taught literacy of two contents in their first language and a partner language (the majority and minority languages) in different amount of time based on their grade levels. Typically, children are enrolled in DLE program in Kindergarten or first grade and they continue at least five or six years, which is the period of time that children are able to reach academic norms at their grade level in a second language (Collier & Thomas, 2004; as cited in Oberg De La Garza, Mackinney & Lavign, 2015). Learning children in DLE program may also extend into the middle classes or high school.

Since the emergence of the DLE program in the United State 1963, English and Spanish were the most prominent instructional languages employed in this program. A variation in the partner language use has been featured prominently other than Spanish recently, such as Arabic, French, Hawaiian, Japanese, Korean, or Mandarin. Despite this variety of the languages used in DLE program, the goals of the program are consistent.

DLE program aims to promote bilingualism, biliteracy, increasing awareness of linguistic and cultural diversity, and achieving high levels of academic success through instruction in two languages among young learners. Accordingly, many researches have evaluated the effectiveness of these achievable goals of the DLE program, which



indicated overall its success. Besides, some researches have indicated some challenges face this program, which may impact student outcomes. Both of these achieved goals and faced challenges will be addressed and discussed throughout reviewing some researches.

There are various models of implementing DLE program depending on the regional and school policy. The most common two basic implemented models are 90/10 and 50/50.

In the 90/10 model, which is implemented in Kindergarten and first grade. Based on the fact that all children speak the same language as they work towards acquiring the second language and becoming completely bilingual, the student populations participating in a 90/10 program model are grouped together(Acosta, Williams, & Hunt, 2019). The majority of content is instructed in the partner language (e.g. Spanish), while 10% of instruction is allocated for the first language (e.g. English) to develop children preliteracy and oral language skills. The largest proportion of time is allocated for the partner language in the first three years and then this proportion vary and change gradually from the fourth grade to be equalled by the sixth grade (50:50).

In the 50/50 model, an instructional balance is between the first language and the partner language. An integration of both languages is employed as a medium of instruction and content learning. The key factor of a balanced model is a precise distribution of time, whether it be in half days, alternating weeks, or alternate half semesters to achieve the ultimate goal of which produces bilingual and biliterate children.

In a dual-language classroom, teachers play a crucial role in assisting students improve and broaden their language skills by teaching and providing them with material in both languages and creating learning activities. Bilingual teachers predominate in the dual language classrooms, the exception is in some co-teaching approaches, in which bilingual and monolingual teachers are paired together.

Methodology

The reviewing procedure was carried out to formulate the problem through gathering data from research articles, which have published in educational journals in the recent ten years. The reviewed articles were mainly gathered from the web search



...

engines; Google Scholar and Research Gate, that particularly searche scholarly literature and academic resources. The researchers assessed the appropriateness of the data, analysed and interpreted pertinent data, and finally organized and presented the findings, into two main category themes. The success of DLE program is the first main category, while the second main category is handling the challenges face DLE program based on the results of the reviewed research studies.

Findings and discussion

The finding that resulted of reviewing the studies were categorized into two main issue themes, the following two main issues' themes related to the success of DLE program and the faced challenges.

The success of DLE program

The review evaluated the success of DLE program in terms of the achieved goals, which examined in the following researcher studies. These achieved goals were related to student outcomes through building literacy proficiency, achieving academic achievement due to language proficiency in the two languages, developing students' cultural identities and positively interacting of implemented pedagogy.

DLE program builds and foster students' literacy proficiency since the first stages. Where implementing the 90/10 model effected prominently on the English language learners (ELLs) in a study carried out by Acosta, Williams and Hunt (2019), that pursued to evaluate and compare the literacy outcomes of ELLs in two California schools under two models (a 50/50 and a 90/10) of DLE program. In order to evaluate the success of each program model in building solid basic reading skills and promoting the long-term academic achievement of ELLs, the researchers analysed the websites of two schools, and also analysed the literacy assessment data. The findings depicted that although the two models were successful in building literacy outcomes, ELLs demonstrated higher levels of literacy proficiency while following the 90/10 program paradigm. As the use of learners' mother tongue and language preservation were affected by these findings.



Language proficiency in both languages results of enrolling students in DLE program which has a positive influence on students' academic achievement. That was found out in Bibler's study (2017) that conducted for estimating causal effects of dual language education on student achievement. The participants were qualified for English second language (ESL) services or were classified as limited English proficient (LEP). Where the data analysis was mainly focused on end-ofgrade exam scores in math and reading, which begin in third grade. The findings revealed that attending DL school effected positively on the LEP students' English proficiency starting in the third grade. Attending DL school also resulted that both ESL and LEP students achieved higher scores on end-of-grade exams in math and reading. Similarly, the DL students, who were enrolled in the bilingual program, outperformed their peers in different programs in terms of the academic achievement. Similarly, Watzinger-Tharp, Swenson, and Mayne (2016) conducted a study to explore the effect of (one way and two-way) dual language immersion program on the academic achievement of students in math. The data was extracted from 2524 students in the third and fourth grade, was analysed using multiple regression for the comparison between the students' results in the two programs. The findings revealed that DLI students achieved better grades in math than their peers in non-DLI program. In the same line, another study by Marian, Shook, and Schroeder (2013) examined how bilingual education affected students' reading and math proficiency, comparing students' test results from several elementary school programs. The researchers also examined whether two-way immersion programs benefit academic achievement in both minority- and majority-language students. Using A cross-sectional data, the data of 2,009 students were collected from the third, fourth, and fifth grade, who were enrolled in public school in Chicago district. The outcomes showed that bilingual Two-Way Immersion (TWI) programs benefited students of both majority and minority languages. While majority-language students in two-way immersion outperformed their peers in mainstream monolingual classes, and minority-language students in TWI programs outperformed their peers in Transitional Programs of Instruction.



Furthermore, the outcomes concluded that programs that combine reading and math instruction in two languages can benefit primary school students who speak either the majority language or the language of the minority.

Learning two languages in DLE emerged as a contributed experience to formulate children's identities and their self-esteem growth. Rodríguez Tamayo and Tenjo-Macías (2019) conducted a qualitative study in a public elementary school in North Virgina, USA. The study endeavored to characterize the experiences that the children have when enrolled in a dual language program and how they affected the development of their cultural identities. Throughout using person interviews, focus group sessions, participants' artifacts, and field observations, the results concluded that receiving influence from people, living circumstances determining language switch, and utilizing two languages as a crucial component in self-esteem growth are among the experiences that emerged as factors in how young learners form their cultural identities.

Another contributed factor appears to enhance bilingual's identity in DLE program, which is implemented in translanguaging pedagogy, as resulted in the following study. A close discourse study of the children's interactions in a two-way bilingual education classroom was conducted by García-Mateus and Palmer (2017) to investigate how emergent bilingual children' identities were jointly constructed with their dynamic bilingual instructor, using Bucholtz and Hall's sociocultural linguistic framework. The study included and 7 focal students and their bilingual instructor. The data was collected via video and audio recorded sessions, detailed written notes and interviews. According to the research findings, translanguaging provided bilingual minorized children opportunities for equitable, empowering educational opportunities and language learning. In addition to building multilingual identities through a trans-linguistic schooling resulted in more metalinguistic awareness.

The challenges face DLE program

The majority of challenges face DLE program, were identified in some studies, found related to teachers and administrators of the program. These challenges are lack of trained teachers, lack of teaching recourses, lack of time for preparing, unrecognized



teaching efforts; Uncertainty regarding the instructional implemented strategies and the necessity for professional support, and finally problems in adopting culturally relevant pedagogy.

The shortage of trained teachers, who can support this learning process, was the most resulted aspect of challenges faced DLE program in many studies. In this regard, A descriptive study was done by Oberg De La Garza, Mackinney and Lavigne(2015) to better understand the challenges facing DL educators and administrators in the state of Illinois, which has the highest percentage of ELLs in the Midwest. A survey was used to gather information on the DL programs already in place throughout the state of Illinois. A total of 111 public schools from 21 districts that provide DL programs were participated. The obstacles derived from the teachers' responses were a lack of resources, a lack of time, a challenge in communicating with parents, and difficulties related to teachers and teaching. Meanwhile, Recruitment and hiring were problematic for school administrators, since the majority of candidates lacked the following skills: fluency in both languages; knowledge of the required material; sophistication in the use of bilingual pedagogy; and/or the required credentials.

The teaching resources play an essential role to convey knowledge through the content of the two languages. However, that appeared to be challenging for DL teachers, in addition to other challenges. Amanti (2019) stated a numerous of aspects that faced teacher during their teaching experiences in her study. That qualitative study utilized interviews to explore the perceptions and experiences of DLBE elementary school teachers when choosing and producing curriculum materials for their classes. The study also examines how prepared (or unprepared) the teachers were for the creation of curriculum materials and how this component of their work was appreciated. All six of the teachers who participated in the study stated that lacked access to enough language teaching resources. Thus, they produce original materials by translating the English resources to fill the gap. None receive extra time for preparing, and the majority claims that their administrators are not aware of the time they devote to creating curriculum materials for their classes.



Teacher support and motivation are crucial components of successful educational programmes, besides parental commitment. The absence of such aspects may create challenges for teachers and teaching process. A study by Choi, Ryu, Van Pay, Meacham and Beecher (2021) examined the beliefs and practices of Head Start teachers toward teaching dual language learners (DLLs). The study also examined the support teachers receive, the difficulties they face, and requirements they need when teaching. The data was collected through using a multiple method approach, such as a survey of teacher beliefs on dual language learning and education, an observation of the classroom materials used for teaching DLLs, and quantitative data on teachers' language use in the classroom, all helped to strengthen the credibility and comprehension of the findings from semistructured interviews. The results found that although most teachers who participated in the study claimed to utilize specific instructional strategies for DLLs, they expressed uncertainty regarding their level of preparation. However, teachers generally report feeling comfortable in teaching DLLs when they gain support. Although teachers, support bilingualism, they differ in terms of their beliefs about whether to utilize differential or universal teaching practices. Furthermore, teachers believed that it was crucial to support DLLs' mother languages, but others felt that some parents' preferences went against their beliefs. Teachers acknowledge facing a number of difficulties when interacting with DLLs and their families. Teachers also reported despite receiving some support from their administration and parents to assist in educating DLLs, they stated that they needed more help and personnel who could help them communicate with DLLs and their parents who speak a range of languages besides Spanish.

Teachers make an effort to guarantee high levels of academically adept language development in both languages, emphasizing two or more cultures and creating a positive learning environment. Several challenges faced by teacher when adopting culturally relevant pedagogy, are stated in the following study. Freire and Valdez (2017) investigated the obstacles that prevent teachers from adopting culturally relevant pedagogy(CRP) in their urban classrooms. A



....

qualitative study was conducted at Howard Elementary, an urban school in the state of Utah, eight elementary Spanish-English dual language teachers who identified several obstacles that they felt had to be overcome. The data analysis revealed four main obstacles were discovered using a method based on pláticas (interviews) and critical sociocultural theory: a lack of time, a dearth of culturally acceptable resources, a lack of understanding, and the notion that social justice issues were not appropriate for young children.

Discussion and Conclusion

The DLE program has been very popular due to the goals it achieved successfully related to student outcomes, which many researches have examined its effectiveness in terms of fostering bilingualism, building literacy proficiency, achieving academic achievement due to language proficiency in both languages, developing students' cultural identities and positive interacting of the implemented pedagogy.

However, there are some challenges that face DLE program, which were addressed by some researchers, and the most prominent were the challenges faced by teachers and administrators of the program, in terms of lack of trained teachers, lack of teaching recourses, time for preparing, unrecognized teaching efforts; uncertainty regarding the instructional implemented strategies and the necessity for professional support, and finally problems in adopting culturally relevant pedagogy.

Although the great success of DLE program in terms of the student outcome, "the program still require areas of expertise, including fluency in two or more languages, educational theory and methodology, content in two languages, second language instruction, and co-construction of language and content, contribute to the severe scarcity of DL teachers" (Fortune, Tedick, & Walker, 2008; Lyster, 2007). When taking these challenges into account, it is expected that DLE program would have a widespread and more successful outcomes.



Reference

- Acosta, J., Williams III, J., & Hunt, B. (2019). Dual Language Program Models and English Language Learners: An Analysis of the Literacy Results from a 50/50 and a 90/10 Model in Two California Schools. *Journal of Educational Issues*, 5(2), 1-12.
- Amanti, C. (2019). The (invisible) work of dual language bilingual education teachers. *Bilingual Research Journal*, 42(4), 455-470.
- Baker, C & Wright, W,E. (2017). Foundations of Bilingual Education and Bilingualism. Bristol: Multilingual matters.
- Bibler, A. (2021). Dual language education and student achievement. *Education Finance and Policy*, *16*(4), 634-658.
- Choi, J. Y., Ryu, D., Van Pay, C. K., Meacham, S., & Beecher, C. C. (2021).
 Listening to Head Start teachers: Teacher beliefs, practices, and needs for educating dual language learners. *Early Childhood Research Quarterly*, 54, 110-124.
- Collier, V. P., & Thomas, W. P. (2004). The astounding effectiveness of dual language education for all. *NABE Journal of Research and practice*, 2(1), 1-20.
- Fortune, T., Tedick, D., & Walker, C. (2008). Integrated language and content teaching: Insights from the language immersion classroom. In T. Fortune & D. Tedick (Eds.), Pathways to multilingualism: Evolving perspectives on immersion education (pp. 71–96). Clevedon, England: Multilingual Matters, Ltd.
- Freire, J. A., & Valdez, V. E. (2017). Dual language teachers' stated barriers to implementation of culturally relevant pedagogy. *Bilingual Research Journal*, 40(1), 55-69.
- García-Mateus, S., & Palmer, D. (2017). Translanguaging pedagogies for positive identities in two-way dual language bilingual education. *Journal of Language*, *Identity & Education*, 16(4), 245-255.
- Lindholm-Leary, K. J. (2001). *Dual language education* (Vol. 28). Multilingual Matters.



- Lyster, R. (2011). Content-based second language teaching. In *Handbook of research in second language teaching and learning* (pp. 611-630). Routledge.
- Marian, V., Shook, A., & Schroeder, S. R. (2013). Bilingual two-way immersion programs benefit academic achievement. *Bilingual research journal*, 36(2), 167-186
- Oberg De La Garza, T., Mackinney, E., & Lavigne, A. L. (2015). Dual language instruction and achievement: A need and a void in the Midwest. *Mid-Western Educational Researcher*, 27(4), 363
- Rodríguez-Tamayo, I. Y., & Tenjo-Macias, L. M. (2019). Children's Cultural Identity Formation: Experiences in a Dual Language Program. Gist Education and Learning Research Journal, 18, 86-108.
- Watzinger-Tharp, J., Swenson, K., & Mayne, Z. (2018). Academic achievement of students in dual language immersion. *International Journal of Bilingual Education and Bilingualism*, 21(8), 913-928.