

YES THEY CAN!

Demystifying the effects of foreign language learning for students with special needs

By Michele Regalla, Ph.D. and Hilal Peker, Ph.D.

This paper addresses the issue of integrating students with special needs into foreign language programs in the early childhood years. A partnership between a university and a charter school in central Florida began as a result of parent and teacher interest in providing a foreign language program for its prekindergarten students. Since 2014, prekindergarten students have been receiving French instruction twice per week in a typical foreign language exploratory (FLEX) program designed to introduce the French language and culture (Lipton, 1992); however, this program is atypical because of the population of the charter school, United Cerebral Palsy (UCP). At UCP, approximately 50% of the students have special needs ranging from mild delays to significant physical and cognitive disabilities. Since the beginning of the French program, questions have been raised by various stakeholders (including some parents and other educational professionals) about students with special needs experiencing confusion in foreign language programs. The most common questions address the topics of first language loss and confusion between the two languages. The educators who started the French program designed a study to address questions raised about the suitability of foreign language programs for students with special needs. The purpose of this study is to examine the effects of a French language program on the first lan-

guage skills of an inclusive prekindergarten population. This article presents the preliminary results from the ongoing research study.

LITERATURE REVIEW

Decades of research in bilingual and foreign language education have provided evidence that second language learning is beneficial to students who do not have special needs (defined as typically developing students). Studies have shown that students enrolled in bilingual or dual language programs have shown an increase in overall academic performance and improved first language literacy skills (Bialystok, 2001; Curtain, 1993; Lambert & Tucker, 1972). According to research conducted by the Center for Applied Linguistics (CAL), children who receive foreign language instruction have shown evidence of cognitive benefits in terms of reasoning, problem-solving skills, attentional focus, oral language skills, and overall school performance (Bialystok, 2001; Curtain & Pesola, 1994; Kaushanskaya, Yoo & Marian, 2011; Stewart, 2005).

Despite all of the research in support of second language learning, access to foreign language and dual language programs is often limited for students with special needs. The Individuals with Disabilities Education Improvement Act (IDEA, 2004) guarantees a free and appropriate public education to all students with disabilities in the least restrictive environment. However, many students with disabilities are restricted from learning a foreign language due to the practice of exempting students who have special needs from foreign language programs (Wight, 2015). Research on students with special needs has focused mostly on the learning challenges encountered by special needs students, rather than the benefits that special needs students may derive from learning a foreign language. The challenges for students noted in the literature regarding students with special needs note a weakness in language processing skills. This weakness results in a struggle with the decoding of written texts and the pronunciation of words (Leons, Herbert, & Gobbo, 2009). According to Tannock and Martinussen (2001), students who experience difficulties in verbal working memory find it hard to simultaneously remember vocabulary, use syntactical rules, and apply correct grammar while listening to a teacher or watching a video in another language. The focus on limitations, such as those previously mentioned, are what guide

the decisions to exempt students with special needs from foreign language programs. Furthermore, the limitation mindset supports the fear that special needs students may become confused by learning a foreign language and this confusion may affect progress in first language learning.

Much more research is needed to improve our knowledge base about early language learning and the relationship between first (L1) and second language (L2) learning for those children with special needs, but little research exists due to the scarcity of foreign language programs offered during the early childhood years. Only approximately 25% of schools in the U.S. offer foreign language at the elementary level (Pufahl & Rhodes, 2011). Also, foreign language programs are not often available to many children with special needs. Due to the lack of foreign language programs available for young children and the limited accessibility for special needs students, the prekindergarten French program at UCP is an ideal site for research in this area. This study was designed to investigate the relationship between first and second language learning for special needs students at the prekindergarten level and addresses the following research questions:

1. What is the relationship between first and second language learning for special needs students?
2. Specifically, what are the effects of second language learning on first language skills?

METHODOLOGY

Setting and participants

The setting for this study is UCP, a charter school that fully integrates students with special needs into the classroom. In accordance with the philosophy of inclusion and educating typically developing and special needs students together, an inclusive French program began in 2014 as a result of a partnership between the school and a local university. Since the start of the program, all pre-kindergarten students have been receiving French instruction two days per week for 30-minute class sessions and are participating in the research study with parental permission. For the purpose of this study, permission was obtained from the parents of 27 students. Of the 27 student participants, 15 were students identified with a special need requiring an Individual Education Plan (IEP). The 12 students without IEPs will be referred to as typically developing students

in this paper. Every student with an IEP who participated in this study was diagnosed with some type of language impairment. In some cases, the student's special needs were limited to language development as a receptive, expressive, or speech disorder. Other students show a more comprehensive diagnosis with a cognitive developmental delay or other disorder (such as a social/emotional disorder or autism) that contribute to issues with their language development.

French classes

With two lessons of French instruction per week, the goal of the FLEX program is to promote basic interpersonal communication at the Novice Low and Novice Mid levels as outlined in the World Readiness Standards for Learning Languages (The National Standards Collaborative Board, 2015) and the American Council on the Teaching of Foreign Languages (ACTFL) Proficiency Guidelines (2012). Lessons were organized according to thematic units and focused on vocabulary such as greetings/names, foods, numbers/age, and body parts. The themes were presented to students using the video series, *Little Pim* (Pimsleur-Levine & Benaish, 2015), which was created to teach foreign languages to young children from birth through age six. The series was chosen because it presents the French language in context without the use of translation and because it has a strong appeal for young children. The teacher used the *Little Pim* video episodes, songs, games, and Total Physical Response (TPR) activities to engage students in activities surrounding each theme.

Data collection and analysis

All students were assessed for their knowledge of English vocabulary at the beginning and end of each thematic unit of study. Students were also assessed for their learning of French vocabulary at the end of each unit. The preliminary findings presented here include the topics of body parts and numbers. Students were pulled individually for the assessments and were asked to name a series of vocabulary words from the unit of study in response to questions such as, "What is this?" along with a visual prompt, such as a flash card. A student was awarded two points for each English vocabulary word he or she could produce. If a student could not produce a word, he/she was asked to identify the word by pointing to the corresponding visual from a set that included three other visuals on the same topic. Students were awarded

one point for every vocabulary word identified correctly and zero points for words they could neither produce nor identify. The same assessment procedure was followed in both the pre-test and post-test of English vocabulary as well as the French tests at the end of each unit. All French and English vocabulary pre-tests and post-tests were entered into Statistical Package for the Social Sciences (SPSS, 2016) software.

FINDINGS

The data presented is focused on the relationship between first and second language learning with an emphasis on the English pre-tests and post-tests given for each unit. For the purpose of this paper, two examples of statistical analysis of raw scores from unit tests are shared below (see Table 1): the pre-tests and post tests for numbers 1-10 and the body part vocabulary. In Table 1, a student's (IEP) status is represented by a number: "0" for typically developing students (no IEP) and "1" for special needs students (students with an IEP). As the chart below shows, the mean scores for special needs students rose from pretest to posttest on English vocabulary. Typically developing students' scores remained the same for numbers (all were able to count 1-10 on the pre-test) and rose for the body parts vocabulary test. These results (see Table 1) indicate that no student received a lower score on an English vocabulary test after receiving French instruction in that same vocabulary.

Furthermore, we analyzed the differences between the typical and special needs students to find out if French instruction affected any of the groups' post-test results. For this reason, we conducted a Chi-Square test. The Chi-square results indicated that the differences in mean scores are not statistically significant between the typical and special needs students on either English post-test (see Table 2), but were significant on one French test.

To be more specific, there was not a statistically significant difference in distribution of ranks among the special needs students and typically developing peers for the English post-test ($X^2 = 1.662$, $df = 1$, $p = .197$), nor was there a statistically significant difference in distribution of ranks among these groups for the test in French ($X^2 = 2.759$, $df = 1$, $p = .097$) for the body parts test. For the numbers test (i.e., 1-10), there was not a statistically significant difference in distribution of ranks among these two groups of students taking the English post-test ($X^2 = .800$, $df = 1$, $p = .371$). However, there was a statistically significant difference in distribution of ranks in French post-tests ($X^2 = 7.739$, $df = 1$, $p = .005$).

Discussion and Implications

The purpose of this study was to examine the effects of a French foreign language program on the first language skills of prekindergarten students with special needs. The findings indicate that all students who participated in this study showed evidence of learning French without any loss of English language vocabulary. Table 2 shows the results of the mean scores of the French tests divided into two groups:

Group Statistics Theme	English Tests	IEP	N	Mean	Std. Deviation	Std. Error Mean
Numbers	Pre-test	0	12	10.00	.00	.00
		1	16	8.31	1.92	.48
	Post-test	0	12	10.00	.00	.00
		1	16	9.81	.75	.18
Body Parts	Pre-test	0	12	7.91	.28	.038
		1	16	7.06	1.48	.38
	Post-test	0	12	8.00	.00	.00
		1	16	7.81	.54	.13

Table 1: Pre-test and post-test mean scores for all students on English vocabulary

students with IEPs (special needs) and without IEPs (typically developing). The mean scores of the special needs students are lower than the

Tests	IEP	N	Mean	Chi-Square	Sign. (p)
Body Parts English Post Test	0	12	15.00	1.66	.197
	1	15	13.20		
Body Parts French Post Test	0	12	16.17	2.759	.097
	1	14	11.21		
Numbers English Post Test	0	12	14.50	.800	.371
	1	15	13.60		
Numbers French Post Test	0	12	18.58	7.739	.005
	1	15	10.33		

Table 2: Chi-square results for classroom tests on both English and French vocabulary

mean scores of the typically developing students; however, all students showed evidence of learning some French vocabulary. These findings align with the previous research showing that special needs students can be successful at learning a second language if sufficient time and appropriate accommodations are provided (Genessee, Paradis, & Crago, 2004; Simon-Cerejido & Gutierrez-Clellen, 2014; Regalla & Peker, 2016).

In addition, it is crucial to note that each student with special needs in this study has a diagnosis of a language impairment. For instance, 12 of the special needs students were diagnosed with expressive language delays. An expressive language delay could account for lower scores in the case where only one point was earned by a student for identification of a French word rather than the two points for production. It is also notable that nine students were diagnosed with receptive language delays, but were able to respond correctly when visual prompts were provided for them to identify the French words. These findings align with the prior research findings that special needs students' language impairments will display equally in both the L1 and L2 (Genessee et al., 2004).

The findings in this study are also significant because they raise the question of the effects of L2 learning on L1 vocabulary for students with special needs. None of the students who participated in this study showed evidence of language loss on tests of English vocabulary.



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In fact, all students showed a very small increase in their test scores of English vocabulary. As shown earlier, the findings of this study indicate that participating in this FLEX program did not have a negative effect on prekindergarten students' L1 vocabulary. None of the students experienced any decrease in their mean scores from pre-test to post-test in English. In fact, there were slight gains in the mean scores from pre-test to post-test in English, but gains were not statistically significant. Although the sample size is too small to suggest that French instruction can benefit special needs students' first language skills, these preliminary results show that the special needs students who participated in this study did not display confusion of the two languages or harm to their first language skills as a result of French instruction. Few studies have investigated the effects of L2 learning on L1 vocabulary skills, but a study by Kaushanskaya et al. (2011) has shown the benefits of learning an L2 on L1 vocabulary skills.

The findings of this study contribute to our knowledge of foreign language education for young students with special needs. First, the findings show that all students can be successful in learning a foreign language. Although students with special needs learn at different rates from their typical peers, they should not be excluded from the opportunity to learn an L2 due to unsupported fears of confusion or L1 language loss. Secondly, it is possible that L2 learning could benefit the L1 skills of special needs students as prior research has shown for typical students. However, conclusions cannot be drawn about the benefits of L2 learning on L1 skills due to the small sample size and the lack of statistically significant results in this preliminary data, and these limitations are acknowledged by the authors. Therefore, there is a need for more research on foreign language programs in the early childhood years. Further research could investigate strategies that support successful foreign language learning for all students and the possible benefits for special needs students of learning an L2.

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