The Impact of Multilingualism on Productive Language Skills: Modelling Some Saudi Multilingual Learners

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Abstract

The issue of whether a learner in multilingual education can achieve the same level of proficiency in two or more languages other than the native language is a problematic one. This study aims at investigating the impact of learning two languages other than the native language on the learners' speaking and writing skills. To attain this aim, the researchers collected the scores of twenty-six multilingual Saudi learners on writing and speaking tests in the academic year 2020-2021. A qualitative and quantitative mixed research design is adopted to measure the performance of multilingual learners in the two languages: English and French. The results showed that there are statistically significant differences between the scores of the Writing Test (WT) in English and French in favor of the English Writing Test because the p-value (0.012) is less than (0.05). It is attributed to the fact that the learners' mental faculty cannot be loaded with more than two writing systems. The results also showed that there are statistically significant differences between the scores of the Speaking Test (ST) in English and French because the level of significance (0.009) is less than ($\alpha = 0.05$). It is attributed to the fact that the English sound system, because of rapid historical changes, becomes much easier for Saudi students than other phonological systems. The balanced students represent 26.9% of the total group of students. The study concludes that balancing between more than two languages is a little bit difficult as one language should dominate over the others.

Keywords: multilingual learners; linguistic performance; productive skills; language faculty

1. Introduction

Multilingual learning is one of the contentious issues in the fields of linguistics and psychology. Maluch and Kempert (2017) described multilingual learning as a kind of education that targets promoting multilingual competence and performance by using more than two different languages as means of instruction. According to Roeper (2011), if there is a clear-cut demarcation, then multilingual learning may be resorted to when more than two languages are employed to teach a particular content, such as Science or Math, rather than just being taught as a subject on its own. Instructors viewed multilingual learning as the proper road for disseminating the culture of bilingualism, allowing learners to become not only fluent but also literate in both their native language and second language (Valian, 2014; Abdulaal et al., 2022; Alfaqara, 2022).

Speaking two or more languages is said to ameliorate learners' capacity to communicate with individuals from other communities. Since it gives students a chance to display their first-language proficiency, multilingual learning also bolsters equal education and provides solutions for underachievement. When a student's native language and two other languages are acknowledged and used as a learning resource, their self-esteem as well as their social and national identity are boosted (May & Dam, 2014; Almusharraf & Bailey, 2022; Alqarni & Dewaele, 2020).

In addition to introducing new linguistics and preserving first languages, multilingual education also encourages linguistic and cultural diversity. This promotes effective cross-cultural communication, which may help people comprehend how cultures and languages differ from one another. Children in dual-language multilingual schools, according to Williams (2022), are more likely to value equality of status, tolerance, and respect. Genuine cross-cultural friendships might grow, and prejudice and stereotyping problems might get solved. Bilingual and multilingual education emphasizes the value of cultivating intercultural understanding, international-mindedness, and global citizenship (Amengua, 2012; Androutsopoulos, 2015; Antoniou, Liang, Ettlinger, & Wong, 2015)

Improvements in cognitive function, particularly in the performance of complex tasks that are controlled by executive functioning processes and working memory, as well as financial advantages like more international jobs are thought to be additional advantages of bilingual and multilingual education. Furthermore, native languages in colonized nations can be revived through bilingual and multilingual education (Reagan, 2015; Bosh & Leminen, 2018; Byers-Heinlein, Schott, Gonzalez-Barrero, Brouillard, Dubé, Jardak, &Tamayo, 2020).

This research study is conducted on multilingual learners. The researchers hypothesized that multilingual speakers will never achieve the same proficiency in the second and third languages, only a few can become really balanced multilingual. There will always be a stronger and a weaker language. The purpose of the study is to find out if Saudi multilingual students have good and equivalent productive language skills in both languages. To that effect, the researchers set the following objectives:

1- To define the appropriate level for each student in the language skills of the two languages, with a special focus on speaking and writing.
2- To examine if the learners' early or later exposure to one of the two languages has an impact on their ability to be equally professional in the two languages, considering that some of them can start learning the two languages from kindergarten while others can kick off later in primary or secondary school.

2. Review of Literature and Theoretical Framework

2.1 Language Acquisition in Childhood

The Critical Period Hypothesis (CPH) described the best time for acquiring a second language. According to Birdsong (1999) and Cavallaro, Elsie, Wong, and Chin Ng (2021), this crucial period begins at the age of two and closes around maturity. Birdsong also clarified the termination of natural functioning and, consequently, the full development of hemispheric lateralization in the mental language faculty. Even though it is agreed that a child's basic language acquisition occurs between the first and fourth years, perspectives on the age of closure for the critical period are various (Chand, 2011). For instance, whereas Hurford and Kirby (1999) suggested the closure sooner, García-Segura (2009) stated the cut-off points as being in the mid to late teens. However, because the end of brain plasticity varies for distinct skills, several researchers have noted multiple closure times for different language components. Thus, according to García-Segura, phonology is the first to stop working at the age of six, followed by morphology and syntax at puberty, while lexical semantics may continue working all the way up to old age.

After describing this early language acquisition process, Bongaerts (1999) drew the conclusion that, according to the Critical Period Hypothesis (CPH), it may be presumed that a child's language learning process, whether monolingual or multilingual, is finished before puberty. Because of this, the earlier learners are exposed to a second language, the more likely it is that they will acquire native-like language proficiency. However, Bongaerts (1999) and Rebuschat and Williams (2011) contended that this does not imply that learning a new language is impossible after this age. Even so, the procedure is followed, however, the acquisition procedure will be altered. According to Rebuschat and Williams (2011), the neural network that oversees language learning is no longer as quick or adaptable.

According to Rebuschat and Williams (2011) and Cockcroft, Wigdorowitz, and Liversage, (2019), the process of learning more than two languages should be separated from the process of language acquisition. Language acquisition is described as a subconscious process similar to how a child learns a language, which involves picking up a language while not consciously being aware of the rules but developing a feeling for correctness. Language learning is defined as conscious knowledge of a second language or a third one, knowing the rules of the language, and being able to talk about them.

2.2 Bilingual and Multilingual Education Efficacy

In the past, many parents were concerned that if their kids learned more than two languages at once, they might experience linguistic deficits. They held that two languages could not live in a person's head at the same level and that the skill of the second language would decline as it would take second place to the first. There are several myths surrounding multilingualism and tutoring young children with a second language, including those concerning language learning delays, split personalities, brain confusion, and language mixing that causes confusion (Roeper, 1999; Comanaru & Dewaele, 2015; Dewaele & Botes, 2020; Di Carlo, Diba, & Good, 2021; Döhler, 2021; López, 2021).

According to Bugarski (2019), Emmorey, Borinstein, Thompson, and Gollan (2008), a multilingual youngster rarely picks up both languages as well as he/she would have done with just one. Bugarski (2019) goes on to assert that the child's capacity for learning other things is diminished by the mental work required to master two languages. According to Ulrich (2020), the balance hypothesis, which holds that people have a natural aptitude for language acquisition and that knowing one language limits the ability to successfully learn another, is the foundation for the claim that bilingualism has a negative impact on linguistic skills. So, it makes sense that having more fluency in one language would translate into having less competency in the others.

However, extensive studies revealed that there are numerous potential explanations for language delay, and multilingualism is not one of them. The above-mentioned balance hypothesis has been refuted by several research studies, which claimed that learning two languages at once has no effect on a learner's linguistic abilities (Ulrich, 2020; Fürst & Grin, 2021; Ezrina & Valian, 2022; Isaa, Kamal, & Ali, 2022).

For example, Cummins (1978) investigated how bilingualism and multilingualism affect cognitive development, metalinguistic awareness, and communicative skills and discovered that the environment in which one learns a second or a third language has no bearing on one's prior language proficiency. The study findings generally supported the idea that bilinguals and multilinguals have an advantage over monolinguals when it comes to language learning. Cummins (1978) pointed out that multilingualism has a positive impact on third language acquisition in an additive environment for general features of language ability. He suggested that this might be due to learning techniques, metalinguistic awareness, communicative aptitude, or the fact that bilinguals have a larger linguistic repertoire.

For example, in a Turkish-English-Italian multilingual program designed for native Turkish speakers, English and Italian instruction that

developed English reading also developed a deeper conceptual and linguistic Italian proficiency that is closely related to the development of literacy in the majority language. Cummins (2000) explained this principle in concrete terms. In other words, although the surface characteristics of different languages are plainly distinct (such as pronunciation and fluency), there is an underlying cognitive/academic proficiency that is shared by all languages. The ability to transfer cognitive, intellectual, or literacy-related competency from one language to another is made possible by this shared underpinning competence. Cummins makes use of the same interdependence theory and suggests that a child's proficiency in a second language depends in part on their level of proficiency in their first language. In contrast, if the first language is at a low stage of evolution, it will be more challenging to reach a high degree of bilingualism. The more developed the first language, the easier it will be to develop the second language (Fabbro, Crescentini, Pascoli, Screm, Cantone, & Fabbro, 2020).

Abolaji (2012) found that proficiency in the first language makes a multilingual perform better in the second language comparing the performance of bilingual and monolingual English language learners in a second language context in Nigeria. He goes on to say those language teachers should be equipped with techniques and safeguards to make sure that the learning or acquisition of a second language does not result in any loss or weakening of the first language by being aware of the difference between additive and subtractive bilingualism or multilingualism. Programs and activities that would support learners in recognizing, appreciating, growing, and using their first language may be necessary to ensure the growth of the second language.

On the other hand, Grosjean (2013) and Gullifer and Titone (2020) thought that balanced competency in a multilingual person's language appeared to be unattainable in that the degree of skill in a language depended on the domains it is employed in. Furthermore, Wei and Hu (2019), Wang and Wei (2021), and Reynolds, Kong, and Liu (2022) claimed that multilingual speakers utilize their languages for various reasons, in many spheres of life, to achieve various objectives. Their proficiency in a language is based on how much they use it.

3. Research Problem

After reviewing the relevant literature, the researchers discovered that Saudi scholars and EFL teachers agree that EFL students struggle in speaking and writing classes. Some researchers claimed that Saudi EFL learners, both male and female, have below-average language skills that need to be greatly improved, attributing their findings to psychological factors like anxiety in class, being absent-minded in class, obsessions, loneliness, depression, guilt, and feelings of inadequacy (Rebuschat & Williams, 2011; Birdsong, 1999; Kang & Lust (2019); King & Lanza, 2019; Kremin & Byers-Heinlein, 2021)

Other researchers blamed the multilingual high school curriculum the students got for their poor results. As a result, this research study aims to respond to the following query: “Does multilingualism have a negative impact on learners’ productive skills?” To answer this question, the researchers set some sub-questions derived from the research problem:

(1) Are there statistically significant differences between the scores of WT in English and French?

(2) Are there statistically significant differences between the scores of ST in English and French?

(3) What is the impact of multilingual education on learners’ speaking and writing skills?

4. Research Hypotheses

This research study is based on two basic hypotheses:

(1) There is a negative correlation between multilingualism and productive skills.

(2) Multilingual learners cannot achieve speaking or writing proficiency in more than one language other than the native language.

5. Research Methodology

5.1 Participants and Instrumentation

Steven Thompson’s equation (See 1 below) is used by the researchers to accurately determine the proper sample size. To achieve external validity, the researchers randomly chose the subjects’ score sheets out of eighty-one learners’ sheets at a private center in Al-Riyadh. During the academic year 2020–2021, these students were between the ages of 15 and 16. Most of them attended a private center where they studied two languages (i.e., English and French) in addition to their native language. The researchers used their final grade sheets from the first and second semesters, which included the results of all their speaking and writing tests and assignments across all disciplines. The researchers focused on speaking and writing tests on the two languages and disregarded the scores of other language skills, such as listening and reading. This is because the researchers intend to investigate the impact of multilingualism on productive rather than receptive skills. Since the study solely examines how well students perform in French and English as subjects and not as the languages of teaching for other courses, the researchers chose the grades in these two languages only.

$$\frac{N\,p(1-p)}{(N-1)(d2/z2)+p(1-p)} \quad (1)$$

N= Population size (105); z = confidence level at 0.95% (1.96); d = error proportion (0.05); p = probability (50%)

5.2 Research Design and Data Collection

To analyze the data collected, the researchers are going to employ a mixed research design. That is, he is going to use both qualitative and quantitative research design. Then, the t-test will be administered to measure the statistical differences between the mean scores of the two languages.

First, to assess each student's proficiency in English speaking and writing, the final grade was determined using two components of English as Main Courses: English Reading and Writing, and English Listening and Speaking. Second, each student's final grade in French, which includes the three primary activities of orthography, grammar, and recitation, has also been determined. These students' annual French and English grades have been contrasted to see if there is any variation in the performance of the two languages. The performance of each learner in both languages throughout the academic year 2020–2021 is shown in Table (1) below and outlined in Fig.1 The Table also displays the grade at which each student began the multilingual program. Table (2) shows the general grade system used to describe the learner's performance.

Table 1. Learners' annual performance in a multilingual program

S's	English Program				French Program				
No.	WT	ST	Average	P-level	WT	ST	Average	P-level	Outset
S 1	13.94	12.05	12.995	FG	13.81	11.72	12.77	FG	KG 1
S 2	10.22	8.33	9.275	I	11.74	10.42	11.08	F	KG 1
S 3	14.81	12.92	13.865	FG	5.73	7.42	06.58	I	KG 2
S 4	12.04	10.15	11.095	F	7.29	6.72	07.30	I	KG 1
S 5	08.92	7.03	7.975	I	10.96	8.77	09.87	I	KG 2
S 6	17.51	14.91	16.21	G	13.59	14.97	14.28	G	KG1
S 7	14.65	12.05	13.35	FG	15.02	14.10	14.56	G	Elem.
S 8	07.15	4.55	5.85	P	10.28	9.42	09.85	I	Elem.
S 9	12.15	9.55	10.85	F	10.78	11.50	11.14	F	KG1.
S 10	14.84	12.24	13.54	FG	15.45	14.42	14.94	G	Eleme.
S 11	06.17	3.57	4.87	P	6.76	8.42	07.59	I	G6
S 12	17.95	16.9	17.425	VW	9.59	6.78	08.19	I	G6
S 13	09.56	8.51	9.035	I	11.21	10.80	11.01	F	Elem.
S 14	15.78	14.73	15.255	G	14.52	13.95	14.24	G	KG1
S 15	14.88	13.83	14.355	G	7.39	7.37	07.38	I	KG1
S 16	14.80	13.75	14.275	G	12.61	12.02	12.32	FG	G6
S 17	11.19	10.14	10.665	F	11.54	10.55	11.05	F	KG1
S 18	05.53	9.41	7.47	I	5.29	4.82	05.06	P	G6
S 19	14.53	18.41	16.47	G	11.29	10.47	10.88	F	KG2
S 20	15.34	19.22	17.28	VW	11.11	8.57	9.84	I	KG2
S 21	12.95	16.83	14.89	G	12.57	11.14	11.86	F	Native
S 22	14.51	18.39	16.45	G	12.93	10.30	11.62	F	KG2
S 23	17.95	21.83	19.89	E	14.79	14.11	14.45	G	Elem.
S 24	09.56	13.44	11.5	F	11.00	11.21	11.11	F	KG1
S 25	14.80	18.68	16.74	G	10.34	11.02	10.68	F	Elem.
S 26	11.19	15.07	13.13	FG	8.00	9.66	08.83	I	Elem.
Ave.	12.80	12.94	12.87		10.98	10.41	10.70		

Table 2. Describing the annual performance using the general grade system

Excellent	**Very well**	**Good**	**Fairly good**	**Fair**	**Insufficient**	**Poor**
19-20	18-17	14-15-16	13-12	10-11	9-8-7-6	Less than 6

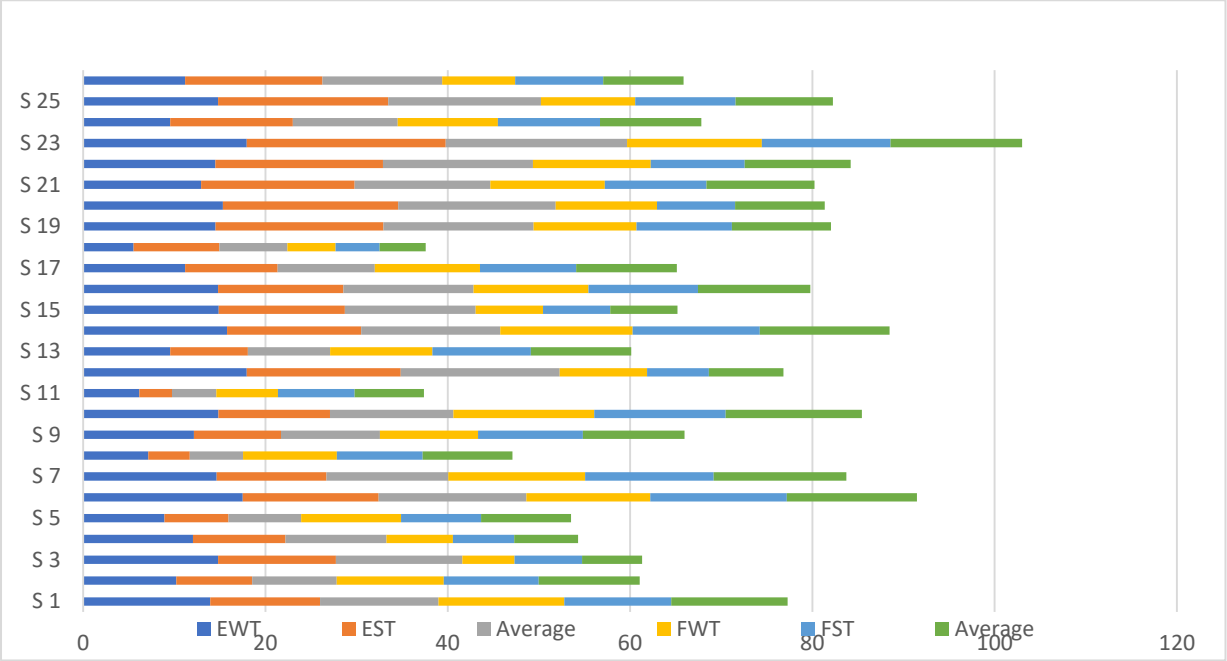

Figure 1. Speaking and writing scores on English and French tests

6. Research Results

Before checking the effect of multilingualism on the productive skills of the participants, first, the normal distribution of the scores of the speaking and writing tests was checked (See Table 3 below). The main two tests Shapiro-Wilk and Kolmogorov-Smirnov showed that p >.05. It means that the null hypothesis (H_0) is accepted and the alternative one (H_1) stating that the scores of the participants are not normally distributed is rejected.

Table 3. Tests of normality for writing and speaking scores

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	sig.	Statistic	df	sig.
Writing Test	.250	25	.006	.903	25	.008
Speaking Test	.196	25	.009	.890	25	.011

a. Lilliefors Significance Correction

To answer the first research question – "Are there statistically significant differences between the scores of WT in English and French tests?" – both the means and standard deviations of the scores of the writings tests in English and French were calculated and then the t-test of independent samples was administered (see Tables 4&5). As can be noticed in Table (4), the means of the L2 tests were higher than those of L3. Table (5) reveals that there were statistically significant differences between the two groups because the level of significance (0.012) is less than ($\alpha = 0.05$). It points out that there were significant differences between L2 and L3 in favor of L2.

Table 4. The mean and standard deviations of English writing tests on English and French

English (L2)	N	Mean	Std. deviation	Std. error mean
Writing	26	12.80	0.244	0.0569
French (L3)	N	Mean	Std. deviation	Std. error mean
Writing	26	10.98	0.144	0.068

Table 5. T-test for independent samples for the writing and speaking tests in L2 and L3

		t-test for Equality of Means						
		T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% ConfidenceInterval of the Difference	
							Lower	Upper
Average	Equal variancesassumed	0.05	25	0.012	2.1	0.0532	0.168	0.2421
	Equal variancesnot assumed	0.05	25	0.012	2.1	0.0596	-0.148	0.2523

To answer the second research question – "Are there statistically significant differences between the scores of ST in English and French tests?" – both the means and standard deviations of the scores of the speaking tests in English and French were calculated and then the t-test of independent samples was administered (see Tables 6&7). As can be noticed in Table (6), the means of the L2 tests were again higher than those of L3. Table (7) reveals that there were statistically significant differences between the two groups because the level of significance

(0.009) is less than ($\alpha = 0.05$). It points out that there were significant differences between L2 and L3 in favor of L2.

Table 6. The mean and standard deviations of English-speaking tests in English and French

English (L2)	N	Mean	Std. deviation	Std. error mean
Speaking	26	11.81	0.254	0.055
French (L3)	N	Mean	Std. deviation	Std. error mean
Speaking	26	09.81	0.114	0.069

Table 7. T-test for independent samples for the writing and speaking tests in L2 and L3

		t-test for Equality of Means						
		T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Aver age	Equal variances assumed	0.04	25	0.011	2.3	0.0542	0.198	0.2497
	Equal variances not assumed	0.04	25	0.011	2.3	0.0546	-0.149	0.2568

The third research question raised in this article is: "What is the impact of multilingual education on learners' speaking and writing skills?" It is noticed that not all multilingual learners are proficient in English and that each learner's ability varies. The examination of the grades in Table (1) reveals that subjects 12 and 20 have a very well level in English at the end of their academic year, with an average final grade of 17.425 and 17.28, scoring (17.95 and 16.9) and (15.34 and 19.22) respectively in the speaking and writing tests. What is noticeable is that only S23 achieved an excellent performance in English, scoring an average of 19.89 and annual scores of 17.95 and 21.83 in speaking and writing, respectively.

Table (1) also shows that students 6, 14,15,16, 19, 21, 22, and 25 achieved a good performance in English, with respective average scores of 14.91, 14.73, 13.83, 13.75, 18.41, 16.83, 18.39 and 18.68, and respective annual performance scores of (17.51,14.91), (15.78, 14.73), (14.88, 13.83), (14.80,13.75), (14.53,18.41), (12.95,16.83), (14.51, 18.39), and (14.80, 18.68). It is also shown in Table (1) that students 1, 3, 7, 10, and 26 achieved fairly satisfactory performance in English with respective averages of 12.995, 13.865, 13.35, 13.54, and 13.13. The respective annual performance scores were as follows: (13.94,12.05), (14.81,12.92), (14.65,12.05), (14.84,12.24), and (11.19, 15.07).

It is also displayed in Table (1) that students 4, 9, 17, and 24 achieved a fair performance in English with respective averages of 11.095, 10.85, 10.665, and 11.5. The respective annual performance scores were as follows: (12.04, 10.15), (12.15, 9.55), (11.19, 10.14), and (09.56, 13.44). Students 2, 5, 13, and 18 achieved an insufficient performance in English with respective averages of 9.275, 7.975, 9.035, and 7.47. The respective annual performance scores were as follows: (10.22, 8.33), (08.92,7.03), (09.56,8.51), and (05.53, 9.41). Students 8 and 11 achieved deficient performance in English with respective averages of 5.85 and 4.87. The respective annual performance is (07.15, 4.55) and (6.17, 3.57)

It seems that English dominates French as nine students achieved insufficient performance in comparison with only four students achieving the same performance in English. Further, what enhances the dominance of English is the prevailing trend of satisfactory performance and the dominating trend of Fair performance in *fig.1*. What bolsters the notion that English gets much dominance over French among bilingual students is that the average score of the annual performance in English (i.e., 12.87), is higher than that of French (i.e., 10.70). Over and above, the performance in the first and second semesters in the English language (i.e., 12.94 and 12.87 respectively) are higher than their equivalents in French (i.e., 10.98 and 10.41).

Table (6) below shows balanced multilingual students, the learners who performed approximately the same in the two languages. The data analysis showed that seven out of the twenty-six students who participated in this study have annual English grades that are comparable to their annual French grades. The linguistic performance of these balanced learners differs. For instance, students 9, 17, and 24 are fairly multilingual, while students 6 and 14 are *good* in both languages. The remaining two students are *fairly good* (i.e., S1) and *insufficient* (i.e., S5).

The balanced students represent 26.9% of the total group of students. This percentage indicates that balancing between two languages is a little bit difficult as one language should dominate the other. Table (1) above shows that nine students have been under the multilingual system from kindergarten 1: 5 from kindergarten 2, 7 from the Elementary Stage, and four from Grade Six. It is noticeable in Table (8) below that all the students who attained a balanced level in the two languages have early exposure to the multilingual system.

Table 8. Balanced multilingual students

S's No.	**English**				**French**				**Outset**
	WT	**ST**	**Average**	**P-level**	**WT**	**ST**	**Average**	**P-level**	
S 1	13.94	12.05	12.995	FG	13.81	11.72	12.77	FG	KG 1
S 5	08.92	7.03	7.975	I	10.96	8.77	09.87	I	KG 2
S 6	17.51	14.91	16.21	G	13.59	14.97	14.28	G	KG1
S 9	12.15	9.55	10.85	F	10.78	11.50	11.14	F	KG1.
S 14	15.78	14.73	15.255	G	14.52	13.95	14.24	G	KG1.
S 17	11.19	10.14	10.665	F	11.54	10.55	11.05	F	KG1

S 24	09.56	13.44	11.5	F	11.00	11.21	11.11	F	KG1
	12.72	11.69	12.207		12.31	11.81	12.065		

As Table (9) below shows, seven students out of twenty-six showed better performance in French than in English. The dominance of the French language over English is noticed among seven Saudi multilingual learners as the table shows. The French average scores in the WT and ST are higher than those in English at 10.94 > 10.82, 10.78 > 8.86, and the total average of 10.86 > 9.84.

Table 9. Saudi students showing more proficiency in French than English

S's No.	English				French				Outset
	EWT	EST	Average		FWT	FST	Average		
S 2	10.22	8.33	9.275	I	11.74	10.42	11.08	F	KG 1
S 5	08.92	7.03	7.975	I	10.96	8.77	09.87	I	KG 2
S 6	17.51	14.91	16.21	G	13.59	14.97	14.28	G	KG1
S 9	12.15	9.55	10.85	F	10.78	11.50	11.14	F	KG1
S 11	06.17	3.57	4.87	P	6.76	8.42	07.59	I	G6
S 13	09.56	8.51	9.035	I	11.21	10.80	11.01	F	Elem.
S 17	11.19	10.14	10.665	F	11.54	10.55	11.05	F	KG1
Ave.	10.82	8.86	9.84		10.94	10.78	10.86		

7. Discussion

Both the means and standard deviations of the scores of the writing tests in English and French were calculated and then the t-test of independent samples was administered to answer the first research question: "Are there statistically significant differences between the scores of WT in English and French tests?" The results showed that there were statistically significant differences between the two groups because the level of significance (0.012) is less than ($\alpha = 0.05$). The results are in alignment with May and Dam (2014), Williams (2022), Abdulaal et al. (2022), and Kizer and Ram ́ez-Esparza (2018) who pointed out that the learners' mental faculty cannot be loaded with more than two language structures. It attributed the superiority of the Saudi multilingual learners in EWT over FWT.

To answer the second research question – "Are there statistically significant differences between the scores of ST in English and French tests?" – both the means and standard deviations of the scores of the writing tests in English and French were calculated and then the t-test of independent samples was administered. The results showed that there were statistically significant differences between the two groups because the level of significance (0.009) is less than ($\alpha = 0.05$). The results are in disagreement with Abolaji (2012) and Grosjean (2013) who pointed out that a multilingual speaker can easily store and retrieve the phonological rules of more than two languages. However, these results are in harmony with Bongaerts (1999), Rebuschat and Williams (2011), Jacob (2018), and Jiang (2019) who claimed that the English sound system, because of rapid historical changes, becomes much easier than other phonological systems. It attributed the superiority of the Saudi multilingual learners in EST over FST.

The third research question raised in this article is: "What is the impact of multilingual education on learners' speaking and writing skills?" To answer this question, three aspects of the data have been investigated: (1) the number of students achieving proficiency in English writing and speaking tests, (2) the number of students achieving a balanced level, and (3) the number of students achieving proficiency in French writing and speaking tests. Table (1) shows that nineteen students attained a proficiency level in English, whereas only seven students achieved the same level in French and English writing and speaking tests (See Table 8), and seven learners showed more proficiency in French than English (See Table 9). This result is in agreement with Hurford and Kirby (1999), Garc ́a-Segura (2009), Zhang and Chan (2017), Zheng (2021), and Yue and Fan, (2022) who claimed that multilingual speakers cannot attain an equiponderant proficiency. Further, this study is in agreement with Rebuschat and Williams (2011), who admitted that multilingual speakers have a language preference that leads to the dominance of a language over others.

8. Conclusions

Based upon the discussion section above, there are statistically significant differences between the scores of WT in English and French tests in favor of the English Writing Test because the level of significance (0.012) is less than ($\alpha = 0.05$). It is attributed to the fact that the learners' mental faculty cannot be loaded with more than two writing systems. It is also concluded that there are statistically significant differences between the scores of ST in English and French tests because the level of significance (0.009) is less than ($\alpha = 0.05$). It is attributed to the fact that the English sound system, because of rapid historical changes, becomes much easier for Saudi students than other phonological systems. The study also concludes that multilingualism affects the learners negatively as only seven students achieved an equiponderant level of proficiency. The balanced students represent 26.9% of the total group of students. This percentage indicates that balancing between more than two languages is a little bit difficult as one language should dominate over the others.

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Conflicts of Interest

All co-writers have no controversy of any nature to declare or to report.

References

Abdulaal, M. A., Sadek, S., Osman Ahmed, M., Zakaria Mahmoud Hal, A., & Elsayed Ahmed Saleh, S. (2022). The impact of a contrastive lexical approach in formulaic expressions' perception on University EFL learners' writing proficiencies. *Education Research International, 2022*, 1-9. https://doi.org/10.1155/2022/1295870

Abdulaal, M. A., Sadek, S., Ageli, N., Al-Hawamdeh, B. O., & Hal, A. Z. (2022). The correlation between foreign language apprehension and foreign language gaiety and their impacts on the ideal L2 self for EFL learners. https://doi.org/10.31235/osf.io/zjctk

Alfaqara, W. (2022). The perceptions of Arabic-speaking Jordanian EFL learners about multiculturalism and multilingualism. *World Journal of English Language, 12*(5), 385. http://doi.org/10.5430/wjel.v12n5p385

Almusharraf, A., Almusharraf, N., & Bailey, D. (2022). The influence of multilingualism and professional development activities on teacher reflection levels. *Sustainability, 14*(8), 1-14. http://doi.org/10.3390/su141811504

Alqarni, N., & Dewaele, J. M. (2020). A bilingual emotional advantage? An investigation into the effects of psychological factors in emotion perception in Arabic and in English of Arabic-English bilinguals and Arabic/English monolinguals. *International Journal of Bilingualism, 24*(2), 141-158. https://doi.org/10.1177/1367006918813597

Amengua, M. (2012). Interlingual influence in bilingual speech: Cognate status effect in a continuum of bilingualism. *Bilingualism: Language and Cognition, 15*(3), 517-530. https://doi.org/10.1017/S1366728911000460

Androutsopoulos, J. (2015). Networked multilingualism: Some language practices on Facebook and their implications. *International Journal of Bilingualism, 19*(2), 185-205. https://doi.org/10.1177/1367006913489198

Antoniou, M., Liang, E., Ettlinger, M., & Wong, P. (2015). The bilingual advantage in phonetic learning. *Bilingualism: Language and Cognition, 18*(4), 683-695. https://doi.org/10.1017/S1366728914000777

Birdsong, D. (1999). *Second Language Acquisition and the Critical Period Hypothesis*, 11-32. https://doi.org/10.4324/9781410601667-6

Bongaerts, T. (1999). *Second Language Acquisition and the Critical Period Hypothesis*, 143-170. https://doi.org/10.4324/9781410601667-11

Bosh, S., & Leminen, A. (2018). ERP priming studies of bilingual language processing. *Bilingualism: Language and Cognition, 21*(3), 462-470. https://doi.org/10.1017/S1366728917000700

Bugarski, B. (2019). Multilingual Europe, Multilingual Europeans. *Journal of Multilingual and Multicultural Development, 35*(3), 298-302.

Byers-Heinlein, K., Schott, E., Gonzalez-Barrero, A., Brouillard, M., Dubé, D., Jardak, A., & Tamayo, M. (2020). MAPLE: A Multilingual Approach to Parent Language Estimates. *Bilingualism: Language and Cognition, 23*(5), 951-957. https://doi.org/10.1017/S1366728919000282

Chand, S. (2011). A study between literate old age group V/S illiterate old age group & working old age group V/S nonworking old age group. *PsycEXTRA Dataset*. https://doi.org/10.1037/e682942012-153

Cavallaro, F., Elsie, T., Wong, F., & Chin Ng, B. (2021). ''Enculturalling'' Multilingualism: Family language ecology and its impact on multilingualism. *International Multilingual Research Journal, 15*(2), 126-157. https://doi.org/10.1080/19313152.2020.1846833

Cockcroft, K., Wigdorowitz, M., & Liversage, L. (2019). A multilingual advantage in the components of working memory. *Bilingualism: Language and Cognition, 22*(1), 15-29. https://doi.org/10.1017/S1366728917000475

Comanaru, R., & Dewaele, J. (2015). A bright future for interdisciplinary multilingualism research. *International Journal of Multilingualism, 12*(4), 404-418. https://doi.org/10.1080/14790718.2015.1071016

Cummins, J. (1978). Bilingualism and the Development of Metalinguistic Awareness. *Journal of Cross-Cultural Psychology, 9*(2), 131-149. https://doi.org/10.1177/002202217892001

Dewaele, J.-M., & Botes, E. (2020). Does multilingualism shape personality? An exploratory investigation. *International Journal of Bilingualism, 24*(4), 811-823. https://doi.org/10.1177/1367006919888581

Di Carlo, P., Ojong Diba, R. A., & Good, J. (2021). Towards a coherent methodology for the documentation of small-scale multilingualism: Dealing with speech data. *International Journal of Bilingualism, 25*(4), 860-877. https://doi.org/10.1177/13670069211023144

Döhler, C. (2021). Birds and places: What does the lexicon reveal about multilingualism. *International Journal of Bilingualism, 25*(4), 1142-1157. https://doi.org/10.1177/13670069211023158

Durand López, E. M. (2021). A bilingual advantage in memory capacity: Assessing the roles of proficiency, number of languages acquired and age of acquisition. *International Journal of Bilingualism, 25*(3), 606-621. https://doi.org/10.1177/1367006920965714

Emmorey, K., Borinstein, H., Thompson, R., & Gollan, T. (2008). Bimodal bilingualism. *Bilingualism: Language and Cognition, 11*(1), 43-61. https://doi.org/10.1017/S1366728907003203

Ezrina, E., & Valian, V. (2022). Do bilinguals get the joke? Humor comprehension in mono- and bilinguals. *Bilingualism: Language and Cognition*, 1-17. https://doi.org/10.1017/S1366728922000347

Fabbro, A., Crescentini, C., Pascoli, E., Screm, S., Cantone, D., & Fabbro, F. (2020). Differences in personality traits in children and adult bilinguals: A pilot study in a bilingual Friulian–Italian context. *Bilingualism: Language and Cognition, 23*(3), 631-638. https://doi.org/10.1017/S136672891900052X

Fürst, G., & Grin, F. (2021). Multicultural experience and multilingualism as predictors of creativity. *International Journal of Bilingualism, 25*(5), 1486-1494. https://doi.org/10.1177/13670069211019468

García-Segura, L. M. (2009). Brain plasticity regulates hormonal Hemodynamics. *Hormones and Brain Plasticity*, 21-42. https://doi.org/10.1093/acprof:oso/9780195326611.003.0002

Gullifer, J., & Titone, D. (2020). Characterizing the social diversity of bilingualism using language entropy. *Bilingualism: Language and Cognition, 23*(2), 283-294. https://doi.org/10.1017/S1366728919000026

Hurford, J., & Kirby, S. (1999). Co-evolution of language size and the critical period. (1999). *Second Language Acquisition and the Critical Period Hypothesis*, 49-74. https://doi.org/10.4324/9781410601667-8

Isaa, M., Kamal, M., & Ali, A. (2022). Multilingualism in Switzerland: An overview. *Journal of European Studies, 38*(2), 55-63. https://doi.org/10.56384/jes.v38i2.255

Jacob, G. (2018). Morphological priming in bilingualism research. *Bilingualism: Language and Cognition, 21*(3), 443-447 https://doi.org/1017/S1366728917000451

Jiang, N. (2019). Phonology-based bilingual activation among different-script bilinguals? *Bilingualism: Language and Cognition, 22*(4), 693-694. https://doi.org/10.1017/S1366728918000664

Kang, C., & Lust, B. (2019). Code-switching does not predict Executive Function performance in proficient bilingual children: Bilingualism does. *Bilingualism: Language and Cognition, 22*(2), 366-382. https://doi.org/10.1017/S1366728918000299

King, K., & Lanza, E. (2019). Ideology, agency, and imagination in multilingual families: An introduction. *International Journal of Bilingualism, 23*(3), 717-723. https://doi.org/10.1177/1367006916684907

Kizer, E., & Ramírez-Esparza, N. (2018). Bilinguals' social flexibility. *Bilingualism: Language and Cognition, 21*(5), 957-969. https://doi.org/10.1017/S1366728917000414

Kremin, L. V., & Byers-Heinlein, K. (2021). Why not both? Rethinking categorical and continuous approaches to bilingualism. *International Journal of Bilingualism, 25*(6), 1560-1575. https://doi.org/10.1177/13670069211031986

Maluch, J. T., & Kempert, S. (2017). Bilingual profiles and third language learning: The effects of the Manner of learning, sequence of bilingual acquisition, and language use practices. *International Journal of Bilingual Education and Bilingualism*, *22*(7), 870-882. https://doi.org/10.1080/13670050.2017.1322036

May, S., & Dam, L. I. (2014). Bilingual education and bilingualism. *Education*. https://doi.org/10.1093/obo/9780199756810-0109

Reagan, T. (2015). Bilingual deaf education. *The Handbook of Bilingual and Multilingual Education*, 391-408. https://doi.org/10.1002/9781118533406.ch23

Rebuschat, P., & Williams, J. (2011). Introduction: Statistical learning and language acquisition. *Statistical Learning and Language Acquisition*, 1-12. https://doi.org/10.1515/9781934078242.1

Roeper, T. (2011). Minimalism and bilingualism: How and why bilingualism could benefit children with SLI. *Bilingualism: Language and Cognition*, *15*(1), 88-101. https://doi.org/10.1017/s1366728911000605

Roeper, T. (1999). Universal bilingualism. *Bilingualism: Language and Cognition*, *2*(3), 169-186. https://doi.org/10.1017/s1366728999000310

Ulrich, H. (2020). On Memory Effects of Heiderian Balance: A Code Hypothesis and an Inconsistency Hypothesis. *Journal of Experimental Social Psychology*, *29*(4), 358-386.

Valian, V. (2014). Bilingualism and cognition. *Bilingualism: Language and Cognition, 18*(1), 3-24. https://doi.org/10.1017/s1366728914000522

Wang, Y., & Wei, L. (2021). Cognitive restructuring in the multilingual mind: Language-specific effects on processing efficiency of caused motion events in Cantonese English Japanese speakers. *Bilingualism: Language and Cognition, 24*(4), 730-745. https://doi.org/10.1017/S1366728921000018

Wei, R., & Hu, Y. (2019). Exploring the relationship between multilingualism and tolerance of ambiguity: A survey study from an EFL context. *Bilingualism: Language and Cognition, 22*(5), 1209-1219. https://doi.org/10.1017/S1366728918000998

Wei, R., Reynolds, B., Kong, M., & Liu, Z. (2022). Is bilingualism linked to national identity? Evidence from a big data survey. *Journal of Multilingual and Multicultural Development*, https://doi.org/10.1080/01434632.2022.2085282

Williams, G. M. (2022). Transitional bilingual education. *Transitional Bilingual Education*. https://doi.org/10.4324/9780367198459-reprw30-1

Yue, M., & Fan, X. (2022). Research on the students' attitudes towards multilingualism: *Li* minority students in Hainan. *Chinese Journal of Applied Linguistics, 45*(3), 360-374. https://doi.org/10.1515/CJAL-2022-0303

Zhang, H., & Chan, B. H. S. (2017). Translanguaging in multimodal Macao posters: Flexible versus separate multilingualism. *International Journal of Bilingualism, 21*(1), 34-56. https://doi.org/10.1177/1367006915594691

Zheng, B. (2021). Scaling bi/multilingualism through dual language education: a multi-sited study of diverse learners' views. *Journal of Multilingual and Multicultural Development,* 43(6), 554-568. https://doi.org/10.1080/01434632.2021.1975722

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