

# Modern-Day Foreign Language Majors: Their Goals, Attainment, and Fit Within a Twenty-First Century Curriculum



Paula Winke, Susan M. Gass, and Emily S. Heidrich

**Abstract** In 1967, John Carroll produced a seminal research report that overviewed the proficiency levels of foreign languages majors at U.S. colleges and universities with the goal to capture and record the state of foreign language instruction in the United States at the university and college level. This chapter revisits the status of foreign language proficiency amongst majors with data from language majors from three large state universities. Data collected in areas of listening, speaking, and reading are compared with the data of Carroll. Fifty years later, a similar picture emerges with speaking and listening skills falling behind other skills. What is different, however, is the general picture of what it means to be a major, with the majority of students today declaring multiple majors as opposed to the single “language/literature” major of the past. A second area of investigation concerned the possible predictors of success amongst language majors. Heritage status, study abroad and intrinsic motivation were important predictors, but amongst those three, it was intrinsic motivation that stands out. Similar to the findings of Carroll, a factor that is important is when language learning begins, with greater progress being made in college-level courses when language learning begins before tertiary education.

**Keywords** Foreign language major · Double major · Proficiency · Speaking · Reading · Listening

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## 1 Introduction

In 1967, John Carroll produced a seminal research report that overviewed the proficiency levels of foreign languages majors at U.S. colleges and universities. Carroll's goal was to capture and record the state of foreign language instruction in the United States at the university and college level. For the study, in the spring of 1965, Carroll tested a nation-wide sample of 2523 seniors majoring in five foreign languages (French, German, Italian, Russian, and Spanish). In the current chapter, 50 years later, we revisit the status of foreign language proficiency amongst majors with data from three large state universities (Michigan State University, University of Minnesota and University of Utah<sup>1</sup>). With federal funding to conduct language proficiency assessments over a three-year period (2014–2016), data were collected from majors and non-majors. In this chapter, we report only on the data from majors so that we can make comparisons between our data and those of Carroll. The results presented in this chapter will allow for a better understanding of the language major in an early twenty-first century context.

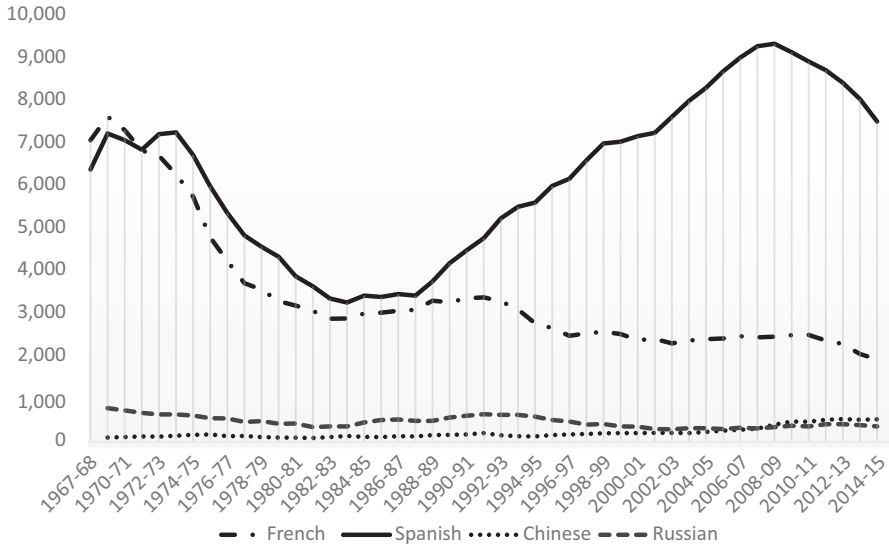
In the first part of the chapter, we consider the proficiency data from 3 years of testing and compare those data with Carroll's results. For this analysis, we analyzed data from French, Russian, and Spanish given that these three languages were the only languages common across Carroll's assessments and our assessments. Therefore, we view this part as a partial replication of the work done by Carroll and as an opportunity to take the "foreign language major's temperature" in the twenty-first century. In the second part of the chapter, we expand the language base to include Chinese (in addition to French, Spanish, and Russian) and consider only the data on majors in these languages from one university (Michigan State University [MSU]) due to the extensive background data collected from MSU students. We report language attainment results related to background variables on gender, heritage status, and study abroad experience. We conclude the chapter with a retrospective of Carroll's data and how the situation today differs from the situation of 50 years ago.

## 2 MLA Database: Bachelor Degrees, 1967–2015

We begin by looking at numbers of students in the United States earning bachelor degrees (Fig. 1) beginning with data from shortly after Carroll's study and ending with data shortly before the end of our data collection period (U.S. Department of Education, 2016a, b). As can be seen, in 1972–73 (not long after the publication of Carroll's study), Spanish degrees surpassed French, and Spanish has remained the dominant language major ever since with a large upswing beginning in the late

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<sup>1</sup> Because the University of Utah used tests that used a different scoring system, we opted to limit the results presented here to those from Michigan State University and the University of Minnesota.



**Fig. 1** Bachelor degrees granted by Postsecondary Institutions in Chinese, French, Russian, and Spanish from 1967–2015. (Data from U.S. Department of Education, 2016a, b)

1980s. Another interesting trend is the general downturn of foreign language study for a period of about 15 years (1972–1987), after which Spanish became the dominant language of the four illustrated, with very little change in Russian and Chinese.

As we will discuss below, the concept of a major is quite different today than it was 50 years ago, when most students had only one major. In today’s world, it is quite common to see students major in more than one subject matter (e.g., language and mechanical engineering, or language and a business-related field), making the direct comparison with Carroll’s data less than straightforward. The figure above counts all bachelor degrees granted in a particular language, regardless of a student’s status as a sole language major or someone with multiple majors.

### 3 Carroll’s 1967 Study and Beyond

Carroll used the *MLA Foreign Language Proficiency Tests* in four skills (reading, writing, listening, speaking) to test foreign language majors. The total time for the battery of tests was two hours. In addition, students filled out a broad background questionnaire and a 30 minute *Modern Language Aptitude Test* (short form). There were numerous findings, but for our immediate purposes, we note two: First, speaking and the audiolingual skill of listening were generally low in comparison to reading and writing; and second, study abroad had a significant impact on attainment. Carroll further found that a language-learning-start in elementary school and/or heritage language status increased one’s chance of higher-level competency.

**Table 1** FL majors in the U.S. 1964–1965, and numbers tested (a subset)

Language	Total in U.S. <sup>a</sup>	No. in participating institutions	No. Seniors Tested	Percent of Total in U.S.	Percent of Total in Participating Institutions
French	5043	2287	1270	25.2	55.5
Russian	556	331	105	18.9	31.7
Spanish	4178	1900	968	23.2	50.9

<sup>a</sup>This table includes only students in institutions defined as being in the 1962–63 population that was used as a basis for drawing the sample. It excludes 60 students listed as majoring in a Romance language, some of whom may have appeared in the sample, but who are not included here because no information is available on the language in which they were tested

Table 1 is an overview of the sample from Carroll’s study based on the three of the four languages discussed in his chapter. As can be seen, French had the largest number of majors tested, followed by Spanish, with Russian having the smallest number.

Carroll compared student achievement on the *MLA Foreign Language Proficiency Tests* to the ratings from the Foreign Service Institute (FSI), the scale that had “been used as [a] common basis for comparing skills and for comparing languages” (p. 134). The FSI scale at that time ranged from 1 (elementary proficiency) to 5 (native or bilingual proficiency), with 3 being the minimum proficiency needed to work in a professional setting (see the Interagency Language Roundtable skill level descriptions and the scale history at <http://www.govtilr.org/>). In Carroll’s comparison of the achievement of students on the MLA tests to this overall rating of proficiency, he found that the “median graduate with a foreign language major can speak and comprehend the language only at about an FSI Speaking rating of “2+”, that is, somewhere between a ‘limited working proficiency’ and a ‘minimum professional proficiency’” (p. 134). By his calculations, both Spanish and French students would be rated closer to a 3 on the FSI for reading. On the other hand, students of Russian were at a “limited working proficiency” capacity, coming in just below FSI 2 for both speaking and reading.

Over the years, researchers have followed in Carroll’s footsteps and investigated aspects of foreign language learning on college campuses to shed a more refined light on foreign language proficiency development (and factors that affect it) at the college-level in the United States (Bernhardt & Brillantes, 2014; Clément & Kruidenier, 1983; Holmquist, 1993; Lafford, 2004; Mangan, 1986; Oller & Nagato, 1974; Rifkin, 2005; Robinson, Rivers, & Brecht, 2006; Rosengrant, 1987; Schumann, 1975; Spada, 1986; Spolsky, 1969; Tschirner, 1996, 2016; Wong & Van Patten, 2003).

But one issue that researchers have not re-investigated since 1967 is how being a foreign language major (or minor) affects attainment and opportunities in foreign language learning. In other words, what level of attainment can one expect from foreign language majors in the early twenty-first century. This is important because Carroll’s metric of foreign language learning in 1967 was focused on the major; but, as noted earlier, being a language-only major today may be rare. In modern-day higher education, there are competing demands and majoring in more than one area to increase employment opportunities and to provide a wider breadth of knowledge

(Urlaub, 2014) is commonplace. As a result, there is a lack of a desire to complete a major with a literary-theory focus (Kym, 2011) because such work is often seen as impractical for employment beyond continuing on to graduate-level literary study. In fact, as noted above, we will discuss a slightly different foreign-language-student profile, namely one that holds a double major.

## 4 Database for Current Study

In 2014, Michigan State University, along with the University of Minnesota and the University of Utah, received federal grants from the National Security Education Program's Flagship Program to undertake a broad-based testing program to include proficiency assessments of foreign language students in the skills of speaking, reading, and listening. The numbers of tests administered differed across the three universities, and the languages selected also differed, but the grant programs were similar: Each university had the goal of measuring the proficiency levels of students across all four years of their undergraduate curricula and across the language programs being studied.

At Michigan State University, students were tested in Chinese, French, Russian, and Spanish, whereas at the University of Minnesota students were tested in Arabic, French, German, Korean, Portuguese, Russian, and Spanish, and at the University of Utah, the languages assessed were Arabic, Chinese, Korean, Portuguese, and Russian. Thus, the scope of the testing for this three-university grant was much broader than Carroll's study, as he tested only majors. As Carroll noted, "[t]he primary purpose of this study was to measure in meaningful terms the foreign language proficiency levels attained at time of graduation by American college students who 'major' in French, German, Italian, Russian, or Spanish" (p. 131). In this chapter, because we are only looking at majors, we limited our analysis to proficiency scores from students enrolled in third and fourth year language classes who had declared majors in the languages assessed. The data come from proficiency assessments in spring 2015, 2016, and 2017. To be included in our analysis, students had to have taken all three ACTFL language proficiency tests (reading, speaking, and listening). If they took these tests more than once, we included only their most recent set of tests. In sum, our analysis is based on 884 majors, 22 in Russian, 227 in French, and 635 in Spanish.

The tests we used were based on the standards of the American Council on the Teaching of Foreign Languages (ACTFL).<sup>2</sup> For speaking, we used the Oral Proficiency Interview – Computerized (OPIc); for reading, the ACTFL Reading

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<sup>2</sup>Carroll served as a consultant in developing the FSI scale, later revised by the Interagency Language Roundtable (ILR) and refined so it could be applied consistently by various raters. In the early 1980s, the American Council on the Teaching of Foreign Languages (ACTFL) created proficiency guidelines, with the Guidelines officially appearing in 1986. While the ILR and ACTFL scales are not direct equivalents (the ILR is used for measurement of professional ability, as opposed to ACTFL, which was aimed at the academic community), a general sense of proficiency can be gleaned from both, allowing us to compare where majors are today.

Proficiency Test (RPT); and for listening, the ACTFL Listening Proficiency Test (LPT). These tests are on-demand tests that are taken on the computer online, administered by the company Language Testing International (<https://www.language-testing.com/>). In the case of the RPT and LPT, the tests are automatically computer-graded, and scores are generated immediately upon completion of the test. For this grant project, the scores were given to the test taker, and also to the language programs. The OPIc requires the student to respond to questions delivered by a virtual “partner” (a computer avatar) instead of a live interviewer, as in a traditional OPI test. Students are rated in any one of four broad categories: (1) Novice (2) Intermediate (3) Advanced or (4) Superior, with levels Novice through Advanced each containing three sub-levels: Low, Mid, and High (e.g., a student could be assigned “Novice Mid (NM)” or “Intermediate High (IH);” see ACTFL (2012) for more information about the scale descriptors).

The results from the current analysis are presented in Table 2 and graphed in Fig. 2. Following Kenyon and Malabonga (2001), to calculate means, we transformed achievement levels into a series of ranked scores such that “10” represented the highest level attainable on ACTFL measures (i.e., superior/S) and “1” represented the lowest (i.e., novice low/NL). Levels in between were coded accordingly in one-point increments. See Chap. 9 by Tigchelaar in this volume for further information on this issue.

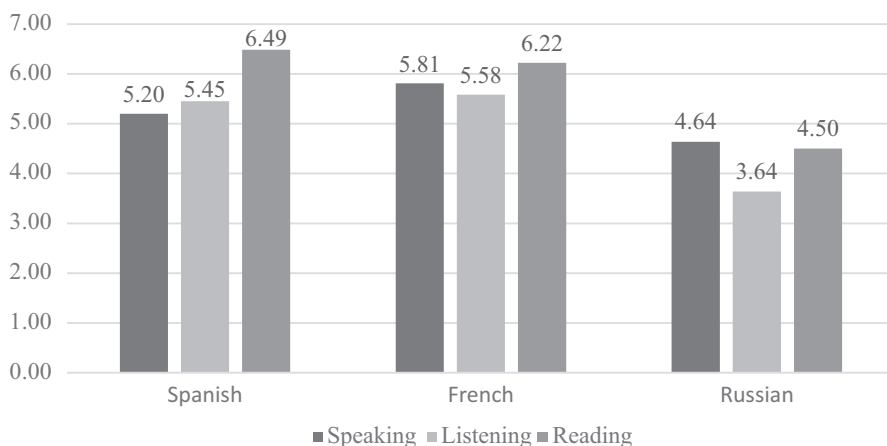
A diverse picture emerges when looking at each of these languages individually. The results of the Spanish students (also the largest *n* size) mirror Carroll’s results most closely. Students of Spanish had test results that were strongest in reading skills, followed by listening, then speaking. The reading scores of French students were similarly strong, but the average speaking score for French students was slightly higher than the listening scores. The Russian majors displayed more proficiency in their speaking skills, followed closely by reading. The listening skills of the Russian students were an average of a full level below their speaking skills.

## 5 Language Major or Multiple Majors?

As mentioned above, many college students 50 years ago had a single major, as opposed to students now who may have multiple majors, with a foreign language major being one, a trend that has been documented in the literature since as early as

**Table 2** Mean proficiency level in listening, speaking, and reading for majors in French, Russian, and Spanish

Language	Mean (S.D.)		
	Listening	Speaking	Reading
French (n = 227)	5.58 (1.37)	5.81 (1.53)	6.22 (8.64)
Russian (n = 22)	3.64 (1.43)	4.64 (1.33)	4.50 (1.54)
Spanish (n = 635)	5.45 (1.38)	5.20 (1.14)	6.49 (1.36)



**Fig. 2** Graphic representation of mean Proficiency level in speaking, listening, and reading for majors in Spanish, French, and Russian

the 1980s (see, for example, Herman, 1987), with more recent literature finding that “second majors” are more often paired with language degrees than any other higher education degree, except for “area studies” (Lusin, 2009). We wanted to see if the students who had one or more majors differed in their performance on the proficiency tests. Based on the information on majors from the registrar’s office at Michigan State University, 125 of the 884 majors from Michigan State examined in this study were identified as language-only majors, which means that they majored in foreign languages only, whether one or, in some cases, more than one; the remaining students, totaling 759, were classified as hybrid language majors, as they had at least one parallel or secondary major besides a foreign language. Overall, the language-only major group seemed to outperform the hybrid language group on all three skills being assessed—listening, speaking, and reading—according to the assessment outcomes that were aligned with the ACTFL language proficiency guidelines.

Of the hybrid group, only 14.76% scored at the Advanced level or higher (i.e., Superior, Advanced High, Advanced Mid, and Advanced Low) on the OPIc, with the majority falling in the Intermediate range (80.63%), whereas of the language-only group, 32% obtained a score at or above AL and another 32% achieved IH. Similar performance differences were also seen on the LPT, where the language-only major (46.40%) was found to be nearly twice as likely to achieve an Advanced level or higher as the hybrid (26.35%) group. The hybrid group closed this performance gap to some extent on the RPT: While 52.44% and 44.14% of the hybrid group scored at the Advanced and Intermediate range, respectively, the corresponding percentages in the language-only major group were 70.40% and 27.20% respectively.

A more detailed understanding of the score distribution among language-only and hybrid language majors is provided in Tables 3, 4, and 5, where the student’s

**Table 3** ACTFL OPIc levels by major

Group	Language	S	AH	AM	AL	IH	IM	IL	NH	NM	NL	Total
Hybrid language major	French	0	6	17	28	40	47	44	4	0	0	<b>186</b>
	Russian	0	0	1	1	3	3	10	1	1	0	<b>20</b>
	Spanish	0	4	11	44	111	229	125	27	1	1	<b>553</b>
	<b>Total</b>	<b>0</b>	<b>10</b>	<b>29</b>	<b>73</b>	<b>154</b>	<b>279</b>	<b>179</b>	<b>32</b>	<b>2</b>	<b>1</b>	<b>759</b>
Language-only major	French	1	6	5	10	7	7	4	1	0	0	<b>41</b>
	Russian	0	0	0	0	0	1	1	0	0	0	<b>2</b>
	Spanish	0	0	3	15	33	21	10	0	0	0	<b>82</b>
	<b>Total</b>	<b>1</b>	<b>6</b>	<b>8</b>	<b>25</b>	<b>40</b>	<b>29</b>	<b>15</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>125</b>

Note: For clarity reasons, we did not include in the Tables 3, 4, or 5 a double language major who took tests in both Spanish and French. His Spanish and French RPT levels were AL and IH, respectively

**Table 4** ACTFL LPT levels by major

Group	Language	S	AH	AM	AL	IH	IM	IL	NH	NM	NL	Total
Hybrid language major	French	0	0	3	56	38	44	26	19	0	0	<b>186</b>
	Russian	0	0	0	1	1	3	7	5	2	1	<b>20</b>
	Spanish	1	2	12	125	101	170	86	53	3	0	<b>553</b>
	<b>Total</b>	<b>1</b>	<b>2</b>	<b>15</b>	<b>182</b>	<b>140</b>	<b>217</b>	<b>119</b>	<b>77</b>	<b>5</b>	<b>1</b>	<b>759</b>
Language-only major	French	0	1	0	18	7	9	3	3	0	0	<b>41</b>
	Russian	0	0	0	0	0	0	0	0	2	0	<b>2</b>
	Spanish	1	1	4	33	14	16	10	3	0	0	<b>82</b>
	<b>Total</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>51</b>	<b>21</b>	<b>25</b>	<b>13</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>125</b>

score information (i.e., OPIc, LPT, and RPT) has been broken down by group and language. Of the three foreign languages, the French program had the highest proportion of language-only majors (18.06%)—one out of five French majors was identified as a language-only major—followed by Spanish (12.91%) and Russian (9.09%). Regarding the score distribution of language-only and hybrid language majors within each language program, we decided to focus discussion only on French and Spanish due to the small number of language-only majors in Russian ( $N = 2$ ).

On the OPIc, language-only majors in both French and Spanish tended to be twice as likely to score at the level of AL or higher as hybrid-language majors in the corresponding programs, despite the fact that the French major in general outperformed the Spanish major in terms of the percentage of Advanced achievers (French [Advanced scorers] = 32.15% vs. Spanish [Advanced scorers] = 12.13%). Unlike the OPIc, the French and Spanish students performed to a large extent alike on the LPT (French [Advanced scorers] = 34.36% vs. Spanish [Advanced scorers] = 28.19%), yet when the effect of major was taken into account, a greater performance discrepancy was observed in the Spanish group between language-only and hybrid language majors than in the French group. For instance, the share of high-achieving students (i.e., Advanced levels or higher) in language-only majors



**Table 5** ACTFL RPT levels by major

Group	Language	S	AH	AM	AL	IH	IM	IL	NH	NM	NL	Total
Hybrid language major	French	0	2	24	63	36	33	20	7	0	1	<b>186</b>
	Russian	0	0	0	3	0	11	1	4	1	0	<b>20</b>
	Spanish	12	9	69	216	102	103	29	13	0	0	<b>553</b>
	<b>Total</b>	<b>12</b>	<b>11</b>	<b>93</b>	<b>282</b>	<b>138</b>	<b>147</b>	<b>50</b>	<b>24</b>	<b>1</b>	<b>1</b>	<b>759</b>
Language-only major	French	0	0	7	22	9	3	0	0	0	0	<b>41</b>
	Russian	0	0	0	0	0	0	1	0	0	1	<b>2</b>
	Spanish	2	3	24	30	12	7	2	2	0	0	<b>82</b>
	<b>Total</b>	<b>2</b>	<b>3</b>	<b>31</b>	<b>52</b>	<b>21</b>	<b>10</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>125</b>

surpassed that of the hybrid language majors by 14.62% in French, whereas the difference was as much as 22.24% in Spanish. The RPT was the only test on which about half or more of the students in both language major types (language-only and hybrid language) achieved at or above the Advanced level. A closer examination showed that language-only majors again performed better than hybrid language majors on reading: In the Spanish program, 71.95% of the language-only majors reached the Advanced level or higher, while only 55.33% of the hybrid-language majors did, whereas in the French program, 70.73% of the language-only majors reached Advanced or higher, and only the 47.85% of the hybrid-language majors reached an Advanced or higher level.

To summarize, the majority of the sampled foreign language majors had stronger reading skills than speaking or listening skills, although this differed across different language programs. Regardless of the type of language skill under examination, language-only majors demonstrated stronger proficiency than hybrid language majors both within and across different foreign language majors. In the next section, we investigate the factors that contribute to the higher proficiency gains in the language-only major group (over the hybrid-language major group). For example, are language-only majors obtaining higher proficiency levels because they study abroad more often than hybrid-language majors do? Or is it because they comprise more heritage language learners than the hybrid-language major group does? Or might it be because language-only majors are more motivated to do well in their language classes?

## 6 Predictors of Proficiency

### 6.1 Background on Predictors of Proficiency Analysis

Research on second/foreign language acquisition has suggested an array of factors that might affect learning outcomes. Similar to Carroll's 1967 study, we were interested in knowing to what extent heritage-speaker status and study-abroad experience contribute to predicting the outcomes of foreign language acquisition. We

added on an examination of several aspects of motivation. We briefly explain the coding of each of the three categories of independent variables (heritage status, motivation, and study abroad), below.

Due to the lack of an explicit heritage-speaker indicator, we collapsed three categorical variables measuring out-of-school language exposure (i.e., family members, friends, and communities) into one measure of heritage language exposure. Students scored either a 1 or a 0 on these survey items, depending on whether they had received language input through the heritage-related source specified in each item. The sum of scores on these three variables constituted the student's final heritage-speaker score. In total, four levels were attainable, ranging from non-heritage speaker (i.e., a score of 0), heritage speaker by one standard (i.e., a score of 1), and up to heritage speaker by all three standards (i.e., a score of 3).

The motivation variable consisted of nine indicators (9 binary variables) describing the purpose for which the student decided to learn a foreign language at the college level. In the context of foreign language learning, it seemed plausible that some types of motivation would have greater influence on learning outcomes than others, as found by prior researchers (for a review, see Ushioda & Dörnyei, 2012). In this study, each of the nine motivation types was a binary indication of that motivation: the nine were not mutually exclusive, which means that if one student was motivated in multiple ways to learn a foreign language, he or she could indicate that by choosing multiple motivations.

The last group of predictor variables contained only one categorical indicator of study-abroad experience. Students obtained a 1 or a 0 on this variable depending on the presence or absence of a study-abroad program in their past experience.

The three dependent variables in this analysis are the 1 to 10 scores achieved on the proficiency tests by the students in speaking (OPIC), listening (LPT), and reading (RPT). We used the same Kenyon and Malabonga (2001) scale as above (transforming results to a 10 point, ranked-ordered scale). Because we had a large body of independent variables to test, and because our goal was to find the most parsimonious models, we used backward regression in our analysis of the data using SPSS 23.0. The analysis began with the full set of independent variables, and in each step, the variable associated with the least reduction in overall R-square was removed until every independent variable left in the model had a significant  $p$  value. In this way, the highest overall R-square was guaranteed upon the elimination of redundant model predictors. Such analysis was performed independently for each of the three dependent variables.

## 6.2 Results

In total, there were 270 unique student cases (majors at MSU with full test and background data) in this dataset. All were all in their senior years when they took the tests. Descriptive analysis of the data showed that over 50% of the students ( $n = 153$ ) had been on a study-abroad program, but only 26.9% ( $n = 70$ ) had received

exposure in the target foreign language through family members ( $n = 56$ ), friends ( $n = 10$ ), or communities ( $n = 4$ ). Variation was also present among the students in terms of their purposes for learning the target language (their motivation). The most common reasons listed by the students included learning the language for (1) professional purposes ( $N = 230$ ; 85.2%), (2) expanding cultural knowledge ( $n = 207$ ; 76.7%), and (3) traveling to a country where the target language is spoken ( $n = 206$ ; 76.3%), followed by slightly less common ones such as learning the language (4) for fun ( $n = 189$ ; 70%) and (5) for the purpose of completing a graduation requirement ( $n = 123$ , 45.6%). The least popular motivation categories were found to be (6) communicating with friends ( $n = 66$ ; 24.4%), (7) preparing for studying abroad ( $n = 46$ ; 17%), and (8) learning about one's heritage ( $n = 27$ ; 10%).

Summary statistics on the students' test scores are displayed in Table 6. The  $N$  sizes for all three tests were smaller than 270 due to the presence of missing values. In the OPIc, one test taker received an "AR" (above range) score and 29 students received "BR" ratings (below range): these were coded as missing data, totaling 30 cases. The missing data in the LPT were composed of 59 unreported test scores and 65 BRs, whereas in the RPT, there were 68 unreported test scores and 57 BRs, and all of these were likewise treated as missing. A comparison of mean scores (only with those without missing data) across tests showed that the students performed slightly better on the RPT ( $M = 6.19$ ) than on the OPIc ( $M = 5.02$ ) or the LPT ( $M = 5.25$ ), although with greater variation on the RPT than on the other two tests. The skewness and kurtosis indices, together with the minimal and the maximal values, indicated the scores on all three tests were relatively normally distributed and were spread out along the entire ACTFL scale represented by 1 to 10.

To save space, we do not explain the multiple steps involved in each regression analysis (these can be obtained by emailing the lead author). However, we present in Table 7 the R-square, unstandardized  $B$  values, standardized beta values, and  $p$ -values that were produced in the last step. Sample sizes varied across the analysis of the OPIc, LPT, and RPT data due to the unequal numbers of missing values on each measure. Only a small subset of the independent variables turned out to be significant predictors in the regression models tested. Coincidentally, each backward regression analysis left three significant predictors, and except for the purpose of completing a language requirement, all the significant independent variables displayed substantial predictive power for two language skills. We now take a closer look at the results of each of the three (OPIc, LPT, and RPT) regression analyses.

Regarding the OPIc, three significant predictors were revealed: study-abroad experience, level of heritage language exposure; and learning the language for the purpose of travel. Together these three variables explained 24.8% of the total

**Table 6** Summary statistics for OPIc, LPT, and RPT scores

	$N$	$Min$	$Max$	$M$	$SD$	Skewness	Kurtosis
OPIc	240	1	9	5.02	1.38	0.281	0.225
LPT	146	1	8	5.25	1.63	-0.901	0.421
RPT	145	1	10	6.19	1.81	-0.772	0.773

**Table 7** Summary of results for regression analyses with OPIc, LPT, and RPT scores

Significant predictors		Assessment (N, R-Square)		
		RPT (145, 0.182)	LPT (146, 0.217)	OPIc (240, 0.248)
Study abroad	<i>B</i>	0.783	NS	0.669
	Beta	.214		.241
	<i>p</i> value	.006		<.001
Heritage level	<i>B</i>	NS	0.636	0.658
	Beta		.265	.306
	<i>p</i> value		.001	<.001
Learning language for fun	<i>B</i>	1.253	0.754	NS
	Beta	.306	.216	
	<i>p</i> value	<.001	.006	
Learning language for travel	<i>B</i>	NS	1.068	0.698
	Beta		.265	.218
	<i>p</i> value		.001	<.001
Learning language to complete requirement	<i>B</i>	-0.658	NS	NS
	Beta	-.182		
	<i>p</i> value	.018		

Note: *p* values are significant below .05, NS = not significant, *B* = standardized Beta value

variance in the outcome variable (OPIc level). The unstandardized *B* values showed that the three factors of (a) having study-abroad experience (as opposed to not having such experience), (b) having an additional source of heritage language exposure (as opposed to not having it), and (c) learning the language for the purpose of traveling to a country where the language is spoken (as opposed to not learning the language for such a reason) were associated with (a) 0.669, (b) 0.658, and (c) 0.698 point increases in the OPIc score, respectively. The numeric increase, when translated into real life, denotes approximately a full level jump on the ACTFL proficiency scale. For example, with all other things being equal, a student who is learning a foreign language for travelling reasons tends (in this data set) to score one level higher on the 1 to 10 ACTFL OPIc scale than a student who does not have such motivations. Such a difference might sound small when considering the two ends of the scale, such as NL versus NM or AM versus AH, but when it comes to the middle range, real-world values attached to the scores might lead to distinct consequences for stakeholders. For example, K-12 French and Spanish foreign language teacher candidates in Michigan currently need to achieve a rating of at least AL on the ACTFL OPI or OPIc speaking test to be eligible for official state certification to teach, so the difference between the rating of an IH and AL is an important one.

One's level of heritage language exposure and learning the language for both travel and fun explained a significant 21.7% of the total variance in the LPT scores. While learning the language for the purpose of traveling to a country where the language is spoken (as opposed to not learning the language for such a reason) was associated with a 1.068 point increase on the LPT, having an additional source of heritage language exposure or learning the language for fun (as opposed to not learning the language for such reason) was associated with a 0.636 or a 0.754 point increase, respectively. The real-world interpretations for the numeric increase in OPIc apply in the case of LPT as well.

The only negative predictor was found in the model for the RPT scores. While study-abroad experience and learning the language for fun (as opposed to not learning the language for fun) both contributed positively to the improvement in reading skills, learning for the purpose of completing graduation requirement (as opposed to the absence of such a motivation) was associated with a 0.658 point *decrease* in the RPT score. At first glance, a negative motivation-based predictor seemed counterintuitive because generally, we would expect the presence of a measure of motivation to exert positive effects on learning outcomes. However, an examination of the different *types* of motivation reveals an important distinction between learning for the purpose of completing graduation requirement and other learning purposes, particularly those that were found to be significant and positive predictors in the regression analyses. Contrary to learning a language for fun or travelling abroad, where the main motivation comes intrinsically from a learner's genuine interest in a foreign language, country, or culture, learning the language for the purpose of meeting graduation requirement is supported by extrinsic motivation imposed on the learner from the outside world (for more on intrinsic versus extrinsic motivation in second language learning, see Ryan & Deci, 2000), which in this case appears to be a negative stick, rather than a positive carrot. The results thus underline the benefits of intrinsic motivation above and beyond extrinsic motivation (in this case) and suggest that foreign language programs at the college level should aim to foster more intrinsic motivation in students, especially because intrinsic motivation appears to support (or go hand and hand with) learner autonomy, a trait essential for sustaining motivation to learn and for promoting active participation in language learning classrooms (Ushioda, 2011).

## 7 Discussion

When comparing Carroll's 1967 results to our present-day results, the findings from the first part of our study shows a remarkably similar picture when considering proficiency abilities in the skills of reading, listening, and speaking. Reading skills still largely surpass other skills for those graduating with a major in a language. It is likely that the current upper-level emphasis on reading literature, particularly in third and fourth year classes, accounts for this result. This (third and fourth year) is when literary theory is often taught, and it is sometimes taught through the reading

of canonical, “standard-setting works of literature” (Saussy, 2005, p. 17). This approach to language learning is known as the “canon approach” (Saussy, p. 18), and one rationalization for this approach is that a language learner should be “able to anticipate in one’s mind the probable reactions of a native speaker,” and that, according to Saussy, can only come through the learning of the classics (p. 21). On the other hand, the high reading yet lower scores in listening and speaking found in this study may reject a purely canonical approach to language learning at the upper levels and rather endorse the growing realization that it is time to make “more room in the major for nonliterary courses,” as described by Jrade (2009, p. 86), with foreign language programs needing “the inclusion of learning experiences that draw on cultural studies, film, and service-learning opportunities; and practical courses that tie into a student’s professional aspirations” (p. 87). Such recommendations align with those from Pope (2008), who asked if language programs could reinvent the language major so that it includes “real seminars, research groups, discussion groups, exhibits, practical projects, and so on” (p. 25). He challenged language programs to change and suggested that they can do so by asking themselves questions like the following:

- Do we ask ourselves what the needs of our particular students are?
- Have we tracked what our students do with their majors?
- Have we asked ourselves what skills they [students] want to have and what information they need?

Pope continued to note that in addition to studying abroad, language majors today may need additional experiences, such as joint ventures with local K-12 schools, community colleges, or other universities. Doing so may provide proficiency growth that mirrors the growth gained during study abroad, an endeavor that is often too expensive for undergraduates, or not possible, especially given the burden of required, on-campus courses needed to fulfill the requirements of their other (non-language) major or majors.

In this study with college foreign language majors, we found that study abroad, heritage status, and intrinsic language-learning motivation contributed to higher proficiency attainment. Looking at the three variables, we now zero in on the one that language programs can most probably and easily address: intrinsic motivation. As described by Byrnes (1988), most foreign language majors declare their major in the second half of their sophomore year. She noted that it may be good for foreign language programs to encourage language learners to declare a language major earlier so that they move earlier from fulfilling a language requirement to taking a foreign language on a volunteer or elective status (that is, they switch from extrinsic to intrinsic language learning motivation). She noted that “language programs should exert every effort to identify majors early on, preferably upon entry during the freshman year” (p. 37). Such efforts could help programs identify enough students for a majors-track, or at least a majors-club, within the language program, which could help students obtain, early-on, a sense of camaraderie, belonging, and autonomy in learning. In addition, the kinds of suggestions made by Jrade (2009) mentioned above (e.g., including a greater emphasis on cultural studies, film, and

service learning) are precisely the kinds of activities that are likely to increase motivation because they tap into students' existing interests.

As in Carroll's (1967) study, we also found that study abroad impacts language learning. This is no surprise, as many studies have found the same results; this has not changed in over 50 years. But what has changed is the duration of study abroad programs: Study abroad programs have shifted overall from majority academic-year programs, to shorter, one semester or even 8-, 6-, 4-, or 2-week intensive summer study abroad programs (Davidson, 2010; Dwyer, 2004). Again, this shift may be due in part to the changing nature of the foreign language student: As shown in this study, few are solely language majors. Most majors in our study were hybrid majors, who often must take pre-requisite courses on campus to fulfil the requirements for their non-language majors alongside those of their language major, requirements that may preclude them from the ability to study a full semester or academic year abroad without impacting their length of overall study. A silver lining on the study abroad literature is that even though shorter programs provide less and fewer linguistic gains (as evidenced by Davidson, 2010; Dwyer, 2004), they still provide a motivational boost that positively impacts language learning overall and for a sustained period of time (Kinginger, 2013). The gains can be in the creation of social networks that sustain learning and connection to the culture, which in turn spur increased or broader opportunities for language development post study abroad. (See Sanz & Morales-Front, 2018, for a discussion on study abroad and second language learning.)

A second finding of Carroll's that garners continued support in our data is the positive impact that starting language learning early has on ultimate proficiency. As noted by Duvick (2002), oftentimes in the United States the foreign language majors are made in the high school foreign language class. High school language learners are anxious to continue studying in college, to participate in study abroad programs, and even major in the language. Duvick (p. 78) noted that high school students may look at a college foreign language program and ask early, even before admission, about what they will be able to do with the language on campus, and their parents may ask about what their adult children will be able to do with the foreign language major post graduation. Duvick noted that the programs need to be prepared for such questions. He wrote that it is increasingly clear that:

Foreign language programs are strengthened when they can answer that prospective student's question, when they can provide opportunities for students to link their interest in foreign language and culture (in its broadest sense) to distinct career paths (p. 78).

He opined that one thing programs can do preemptively is to enter into collaborative arrangements with other academic units. And we also believe this would be wise. Foreign language programs should collaborate with the academic units that commonly share (hybrid) majors with the language programs. Indeed, some language and non-language programs are collaborating at Michigan State University to offer special-topic and interdisciplinary study-abroad programs that integrate language instruction and hands-on practical and content learning, such as a summer exchange program to Quito, which includes a program sponsored by the Spanish program within the College of Arts and Letters and the Anthropology program



within the College of Natural Sciences. Hybrid anthropology and Spanish majors can spend a summer with a home stay family in Quito while also taking part in experiential (on-location) anthropological research. Such programming and collaboration make study abroad possible for more majors, especially hybrid majors, as they can, conceivably, gain credit that may be honored across their two majors (a two-for-one benefit).

We further see the benefits in starting early, as outlined by Carroll (1967): Another paper by Isbell, Winke, and Gass (2018) found that having taken the foreign language prior to college entrance helps one with overall proficiency. Students, the longitudinal study shows, who come into programs with prior learning can advance (grow) in their proficiency more than those who start in college. This underscores the importance of high schools as a venue for recruiting foreign language majors, but note that Kym (2011) warned that high school language programs are dwindling; thus, university and college language programs must not solely rely on them as consistent or sustainable feeders. We too have heard this warning cry, as in Michigan new computer programming classes in high schools are substituting for or even replacing foreign language requirements, and such trends may only continue as programming becomes more important and high-school programming curricula are created and put into place through legislation, which is at times backed by technology companies. Foreign language programs may be pushed in coming years to be viewed more and more as programs on the sidelines, those relegated to a broad humanities-based education, unless the programs can tout themselves as offering strong, interdisciplinary majors, ones partnered with other programs in science, technology, health, communications, and math. Such links with other programs may make hybrid language majors with a foot in STEM (science, technology, economics, and math) and other areas more globally focused, and graduates from such programs more locally and internationally employable.

Our research, like Carroll's (1967), questions a strong, traditional emphasis on literature for majors. It is likely that in some foreign language programs, a strong emphasis on literature in the upper levels coincides with less upper-level instruction in speaking and listening. Byrnes (1988) lamented that an emphasis on literature in upper-level courses before students are ready (proficiency-wise) to take such classes often leads to the teachers reverting to English in class, a problematic result that may still occur, as evidenced more recently by Zyzik and Polio (2008). Zyzik and Polio observed Spanish literature courses at Michigan State University. They categorized the type of interactions that occurred between the professors and the students, and noted that there was a lack of opportunity for the students to speak in anything but short utterances. Instead, teacher-talk dominated the lessons, and instructors were concerned with covering the content in a limited amount of time, and asked students questions to check their comprehension. Zyzik and Polio's observations combined with our proficiency measures of majors at the same institution seem to suggest that students in upper level foreign language classes are, indeed, still language learners, and that they need linguistic, socio-pragmatic, as well as content-based instruction. They need practice using the foreign language across all skills: listening, speaking, reading, and most probably, writing, although



we did not assess that skill in this study: See Bernhardt et al. (2015) for information on how college-level program directors can develop and sustain writing proficiency assessment at their institutions.

Teaching all skills and content-areas across the entire four-year, undergraduate curriculum may help to advance robust foreign language learning, one that produces students who are truly *Advanced* in their skills, a designation that eludes many college graduates majoring in a foreign language today (Tschirner, 2016). The goal is not to take literature and culture *out* of the language program, but rather, as explained by Kym (2011, p. 44) to greatly increase the emphasis on language learning in the current literature and culture classes. By definition, advanced language learners can use the language contextually in sophisticated ways (Ortega & Byrnes, 2008, p. 8); Advancedness in a foreign language is associated with “aspects of literacy, to diverse manifestations of cultural competence, choice among registers and multiple speech community repertoires, voice, and identity in cross-cultural communicative settings,” they wrote. Thus, it is obvious that majors, who are, as a goal, to become Advanced language learners and beyond, need more than instruction on canonical texts: They need (a) interactive classes, (b) the ability to join active research groups and real-world (online or face-to-face) group discussions, (c) the facility, materials, and space to create hands-on exhibits, and (d) concrete experience in creating practical projects for other language learners and community members that use or need to use the language: that is, the entire rich world of language-learning equipment and experiences that Pope (2008), Jrade (2009), and Zyzik and Polio (2008) called for.

One large difference between Carroll’s data and ours was the nationwide scope of his and the local nature of ours. His study covered 15 medium to large institutions who participated voluntarily. He had a sophisticated sampling procedure, but did rely on voluntary institutional buy-in. And, within those institutions, students volunteered to take his test battery. In our case, MSU ‘volunteered’ in the sense that the PIs applied for funding to undertake this study, but different from Carroll’s students who volunteered, our students were required to take the tests as part of course requirements. We relied on department chairs, language program coordinators, and individual instructors to allow us access to their classes. Even though students were required to participate in the testing as part of class, it was the instructor who determined whether participation was part of a student’s grade or, perhaps, extra credit.

We, of course, do not know if any differences between our study and those of Carroll are due to the students’ differences in volunteering, but we do note that Carroll attempted to determine whether the volunteer versus non-volunteer status was significant. He examined the transcripts of the 237 foreign language majors in his participating institutions to determine their foreign language grade point averages (GPAs). He compared those GPAs with 284 students who had not volunteered, and he found a significant difference in only 6 of the 15 institutions with stronger GPAs amongst the tested students. Perhaps most interesting was his finding that, contrary to what one might expect, those who opted to take the test were not always the stronger students. In two university settings (with large numbers of students tested), those who opted to take the tests had lower grade point averages than those who did not test.

We also want to note that there is a discussion on whether there has been a drift in the ACTFL scale in how it is mapped onto the ILR scale; that is, whether the scale-level correspondences have shifted over the years since the ACTFL scale was first conceived (and created in reference to the ILR scale) in the 1980s (personal communication, Liskin-Gasparro, Oct. 27, 2017). An original interpretation of the ACTFL scale in the early 80s was that Superior on the ACTFL scale was a 3 (working-level ability) on the ILR scale, but now, conventionally, a 3 on the ILR scale is considered to map onto Advanced Low on the ACTFL scale. Whether this drift is real is a matter of empirical investigation (and could be studied using archives of rated speaking test data). But if it is real, then applied linguists may need to know the size and scope of the drift to best understand how to compare today's proficiency data with data from 50 years ago.

These issues aside, our study shows that Carroll's (1967) work was groundbreaking, but his work was not finished in 1967. Many of the questions he pursued then are being pursued now. How far can we go? What can foreign language majors obtain in terms of foreign language proficiency? How prepared are they for a globalized and industrialized world? What pushes them forward, and what pushes them back? We add nuances to these questions, such as how do the changing natures of foreign language programs, curricula, and the students themselves contribute to the attainment of language proficiency at the tertiary level? We believe that while we found many common threads across the two studies that bridge 50 years of research, more research is needed. More pictures of proficiency at the college level are needed, and different cameras (tests, observation protocols, self-assessments, and portfolios) should be used so that our results can be triangulated and tested for methodological rigor. This is important, because researchers (e.g., Liskin-Gasparro, 1995) have long suggested that majors have language skills that are difficult to assess, and some of the genres they are knowledgeable about are best assessed through extensive portfolios or senior research theses. When the assessments and robust depictions of proficiency are strung together, we may eventually be able to see our moving trajectory rather than just our moment-in-time trends.

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