

Does French Translation of the SAMP Examination Impact Performance?



Brian J. Hess, PhD; Sonia Labbé, MSc; Tatjana Lozanovska, MEd; Ed Ziesmann, BA, BScPT, MBA; Brent Kvern, MD, CCFP, FCFP
The College of Family Physicians of Canada

Background

To maintain the validity of the CFPC Certification Examination in Family Medicine, it is important that the CFPC utilize a robust translation process to ensure that the French version of the examination is equitable to the English version.

Objective

To determine if candidates completing the French translated Short Answer Management Problem (SAMP) examination component perform similar to candidates completing the English version.

Methods

All residents from 17 family medicine residency programs in Canada completing the SAMP component of the certification examination for the first time.

Spring 2022 (N=1,407) > English=1,039 French=368

Fall 2022 (N=93) > English=68 French=25

Spring 2023 (N=1,369) > English=1,036 French=333

Design and Analysis

The SAMP is a written case-based exam comprised of shortanswer management problems designed to test clinical reasoning abilities related to identifying and managing health problems.

For each case, patient info is provided followed by 3 to 5 questions – each requires between 1 to 5 answers.

A typical SAMP has 40 cases and approx 140 to 160 questions per form. Multiple forms with equating used in Spring. A certified medical translator translates the approved English content into Canadian French, and the CFPC Translation team reviews for accuracy and clarity.

Then, an independent native French-speaking bilingual family physician reviews the translation to ensure Canadian French medical terminology is used.

Final content is reviewed once more by the CFPC Translation team before being published in the examination delivery software.

Data Analysis



Statistical analyses were conducted comparing the performance of English and French candidates on individual SAMP cases and questions.

The exam committee reviewed questions with statistically significant performance differences; questions were removed from scoring if the difference was a result of ambiguity of meaning present in either language, translation error, or marking issue.

A general linear model evaluated the difference in overall mean SAMP scores between the language groups controlling for: gender, medical school type (international vs. Canadian), and residency program.

Multivariate logistic regression determined if language was associated with a passing outcome controlling for covariates.

Findings



Questions Identified with Significant Difference in Performance Between the Language Groups and Removed From Scoring



Spring 2022
6 questions across forms identified
All 6 ENG performed higher
0 removed



Fall 2022
7 questions identified
5 ENG higher; 1 removed
2 FRE higher; 0 removed



Spring 2023
11 questions across forms identified
6 ENG higher; 3 removed
5 FRE higher; 2 removed

Language was a weak but statistically significant predictor of passing the Spring 2022 exam (French vs. English OR=0.40; 95% CI: 0.23-0.72)

SAMP pass rate for both language groups was > 90%

Fall 2022 exam No significant difference in mean SAMP scores or pass rates observed between the language groups

Language was not a statistically significant predictor of passing the Spring 2023 exam (French vs. English OR=1.26; 95% CI: 0.69-2.30)

SAMP pass rate for both language groups was > 90%

Comparison of Spring 2022 SAMP Mean Scores – General Linear Model

Source	F	Sig.	Partial η ² Effect Size	Interpretation (adjusted means)
Language (ENG vs FRE)	9.23	0.002	0.007	Very small difference ENG=67.98; FRE=66.05
Gender	4.12	0.016	0.006	Very small difference Women=67.91; Men=67.30
Med School (CMG vs IMG)	34.20	<0.001	0.025	Small difference CMG=68.64; IMG=66.22
Residency program	2.91	<0.001	0.034	Small differences between 17 programs

Model adjusted $R^2 = 0.10$ (or 10% of the variance in SAMP scores is explained by the 4 variables)

Comparison of Spring 2023 SAMP Mean Scores – General Linear Model

Source	F	Sig.	Partial η ² Effect Size	Interpretation (adjusted means)			
Language (ENG vs FRE)	0.38	0.54	0.000	No significant difference ENG=67.53; FRE=67.30			
Gender	0.52	0.59	0.001	No significant difference Women=68.31; Men=66.50			
Med School (CMG vs IMG)	34.51	<0.001	0.026	Small difference CMG=69.44; IMG=65.37			
Residency program	2.37	0.001	0.030	Small differences between 17 programs			
Model adjusted $R^2 = 0.13$ (or 13% of the variance in SAMP scores is explained by the 4 variables)							

Conclusion

For more information, please send an email to academicFM@cfpc.ca

The French translation of the SAMP examinations did not result in significant performance differences between the two language groups.