

The Impact of a Single Semester of New Language Learning on Creativity in College Students



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INTRODUCTION

The development of creative thinking can be influenced by myriad factors, including bilingualism. Prior research demonstrates higher levels of creative thinking in bilingual individuals compared to monolingual individuals when using a categorical approach to define bilingualism (Kharkhurin, 2010a; Kharkhurin, 2010b; Leikin & Tovli, 2014). Furthermore, research using a dimensional measure of bilingualism supports a positive association between bilingualism and creative thinking (Lee & Kim, 2011). Finally, a group of English-speaking elementary school children instructed in French for several years performed as well or better on creativity measures, relative to two monolingual control groups of students (Lambert, Tucker, and d'Anglejan, 1973). The degree of exposure to a new language sufficient to generate observable change in creative thinking is unknown. This study will examine whether learning the basics of a new language in a 14-week college language course will effect change in students' creative thinking using a pre/post-test design. It is hypothesized that the impact of a single semester of new language instruction will enhance creative thinking.

METHODS

Participants

At a Midwestern university, 12 students (five identified as cisgender males, six as cisgender females and one as non-binary) ranging in age from 18 to 32 ($M=20.8$, $SD=4.4$) participated in the current study. Five participants identified as White/Caucasian, three as Black/African American, three as Latino/Hispanic, and one as Asian.

Measures

Baseline testing was conducted during the second week of an Elementary Japanese class and post testing was conducted at the last class. The Abbreviated Torrance Test for Adults (ATTA) was administered at pre and post testing to obtain measures of verbal and figural creativity (Althuizen, Wierenga, & Rossiter, 2010; Goff & Torrance, 2002).

Analysis

Completed ATTA tests were scored by the publisher. Four summary measures, Verbal and Figural Total Scores, Total Scaled Score and Creativity Index, were computed. Participants' levels of verbal, figural and overall creativity were compared prior to and following a semester of language instruction using paired sample t tests with SPSS software.

RESULTS

Table 1
Results of Paired Sample t Tests Analyzing Difference Scores

ATTA Scores T2-T1	Difference Score M	Difference Score SD	t (11)	p	Cohen's d
Figural	1.167	3.433	1.177	.264	.340
Verbal	.750	1.288	2.017	.069	.582
Total	4.083	6.585	2.148	.055	.620
Creativity	6.000	8.801	2.362	.038	.682

Figure 1

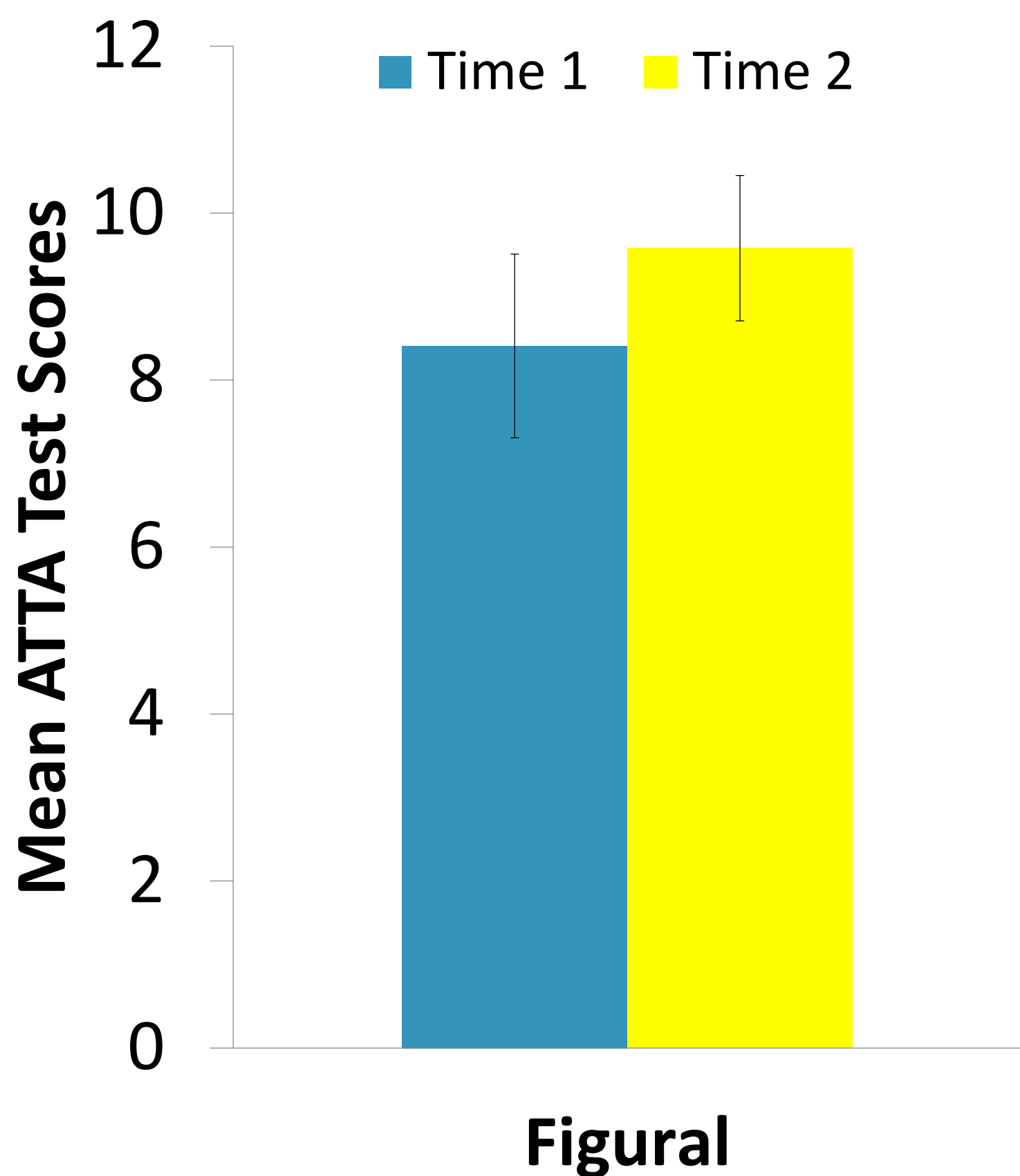


Figure 2

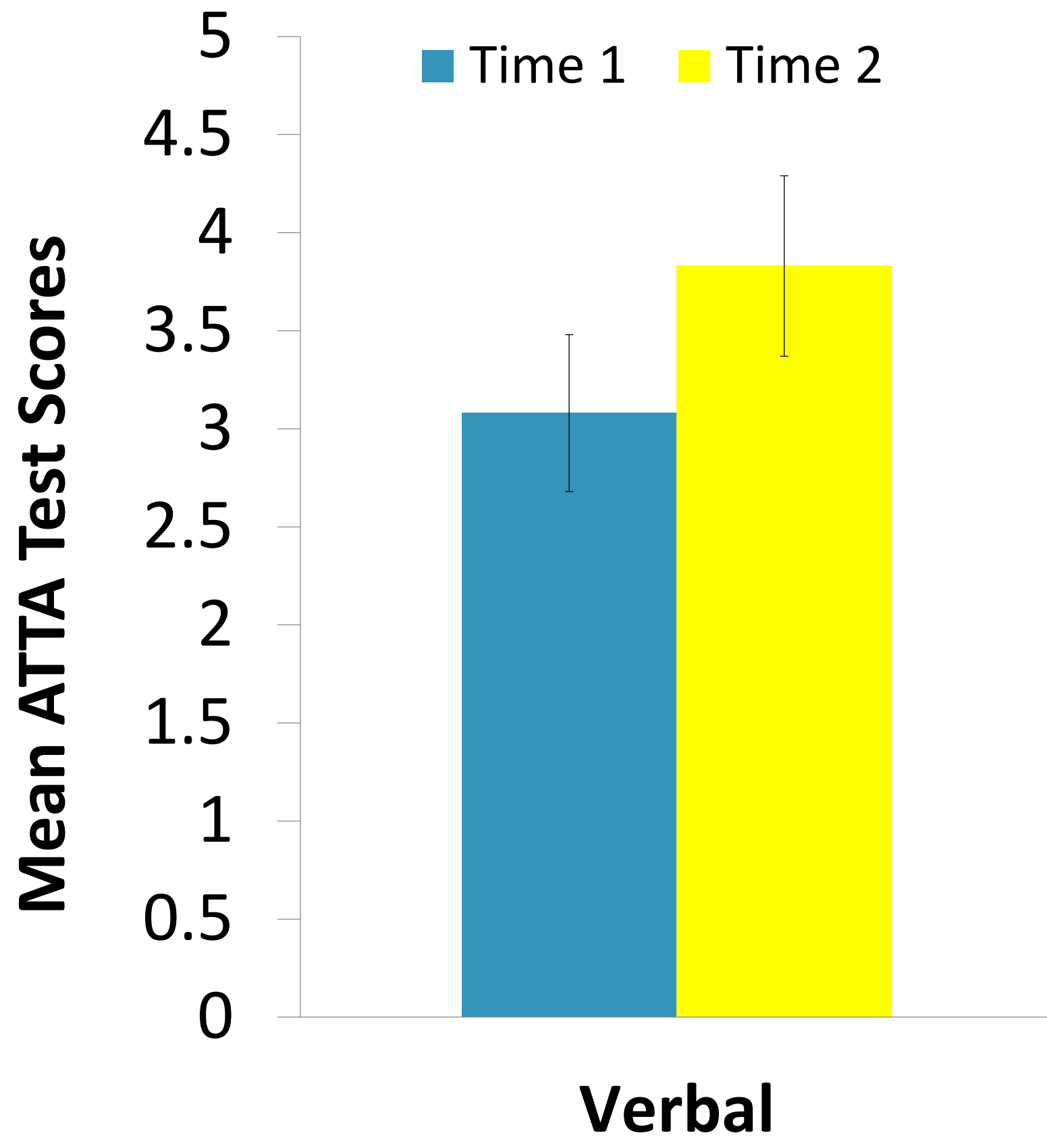


Figure 3

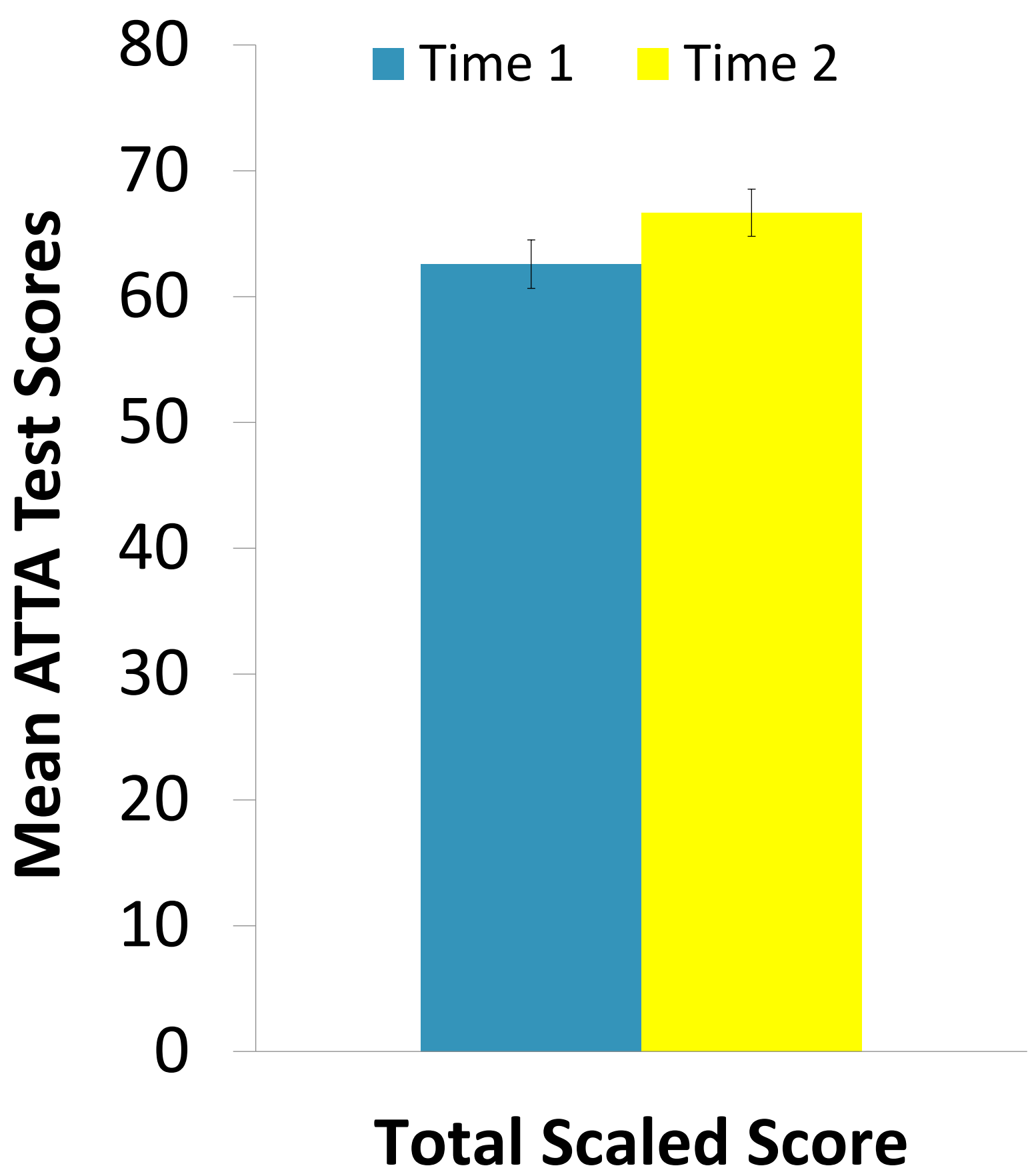
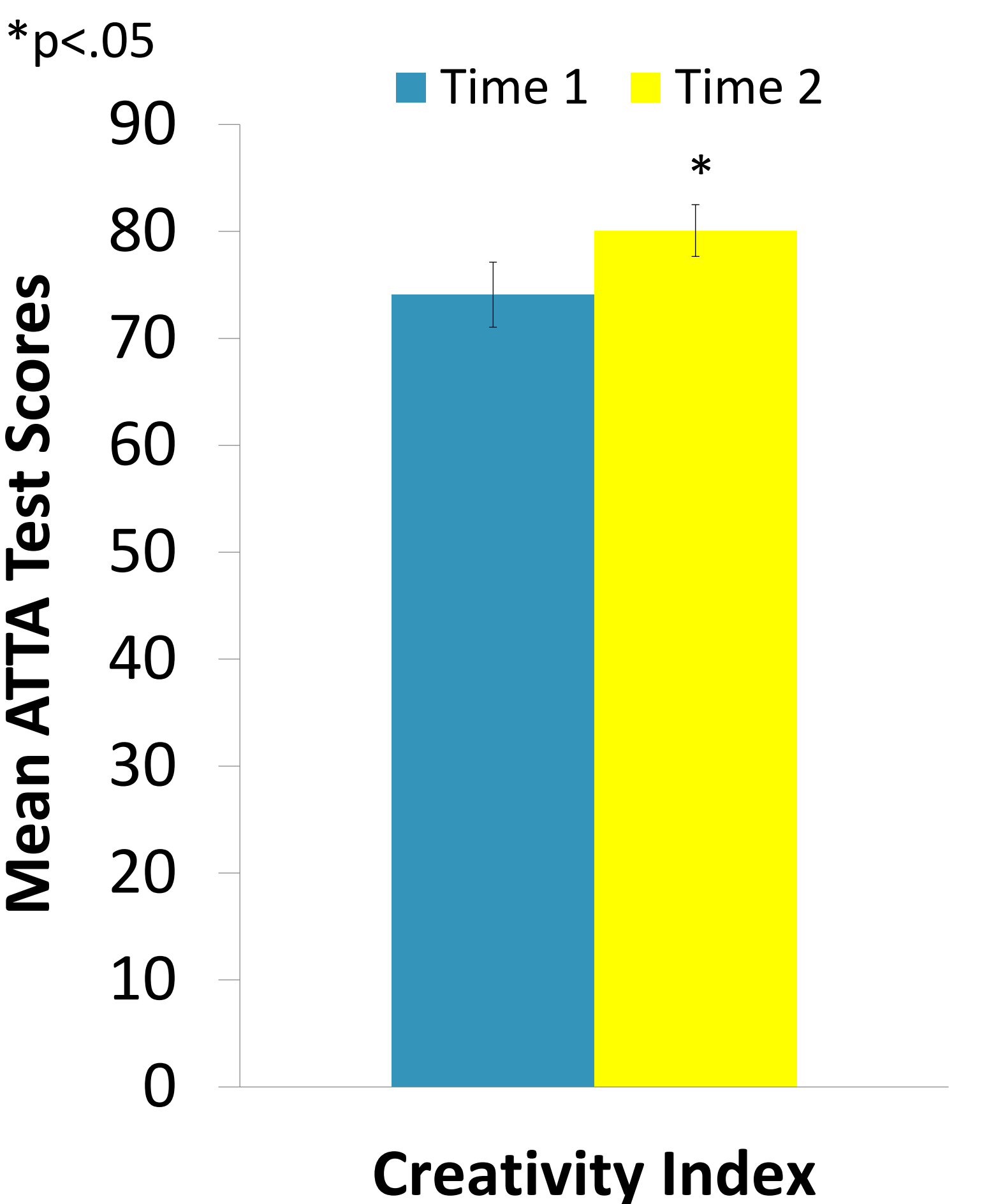


Figure 4



DISCUSSION

Data supported the hypothesis that one semester of new language instruction can significantly enhance creative thinking. Performance on all four ATTA summary measures increased over the semester, with small to medium effect sizes. Difference scores between the Verbal and Total Scaled Scores at baseline and outcome approached statistical significance, while the Creativity Index was significantly higher at outcome. Results support the benefit of foreign language education.

Limitations:

- Small sample size
- Absence of a control group
- Potential influence of practice effects on ATTA performance
- Varying degree of participants' exposure to a second language prior to enrollment in the Elementary Japanese course

Future directions will include exploration of differential boosts to creative thinking provided by new language instruction when native and new languages belong to the same family, e.g., both Indo-European languages, as compared to native and new languages belonging to different linguistic families, e.g., Indo-European and Japonic.

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