



# The Direct and Indirect Contributions of Morphological Awareness to Reading Comprehension in French Immersion

Abuosbeh, Z., Rafailov, S., Hipfner-Boucher, K., Steele, J., & Chen, X.



## INTRODUCTION

- English-French bilingualism is a highly advantageous asset. Currently, there are over 480,000 students enrolled in French Immersion (FI) programs all over Canada (Statistics Canada, 2021). FI is a publicly-funded program that offers language and academic instruction in French for non-French speaking students (Genesee & Jared, 2008). Accordingly, academic achievement in FI is dependent on English and French language skills that facilitate reading comprehension.
- Reading comprehension is the product of word reading and listening comprehension skills (Hoover & Gough, 1990). The word reading skills of FI students have been extensively studied (e.g., Jared et al., 2011), however, much less is known about FI students' listening comprehension skills. These include morphological awareness, a metalinguistic skill that refers to the ability to reflect on and manipulate morphemes in words (Carlisle, 2003).
- Morphological awareness is a significant predictor of reading and reading comprehension in monolingual English students (e.g., Kirby et al., 2012).
- Several studies also point to the indirect effect of morphological awareness on reading comprehension mediated through vocabulary (e.g., Nagy et al., 2006).
- Additionally, the relationship between morphological awareness and reading comprehension was found to be mediated by morphological decoding and morphological analysis (Levesque et al., 2017).

## THE CROSS-LANGUAGE TRANSFER OF MORPHOLOGICAL AWARENESS

- The Transfer Facilitation Model (Koda, 2008) states that oral metalinguistic skills developed in the L1 support reading development in the L2.
- The cross-language transfer of metalinguistic skills has been widely observed in English-French bilinguals (e.g., Comeau et al., 1999) because of shared linguistic features at the vocabulary, phonological and morphological level.
- The role of morphological awareness in predicting word reading and vocabulary in FI both within and across languages is well established (Deacon et al., 2007; Lam & Chen, 2018).
- English morphological awareness was a significant concurrent and longitudinal predictor of French word reading between grade 1 and grade 3 (Deacon et al., 2007). In the same study, Grade 3 French morphological awareness was also a significant concurrent predictor of English word reading.
- English morphological awareness also predicted unique variance in French vocabulary over and above French language skills in grade 2 and grade 3 FI students (Lam & Chen, 2018).

## RESEARCH OBJECTIVE

Morphological awareness is essential to inferring the meaning of morphologically complex words, leading to the comprehension of individual sentences and ultimately full texts (Nagy, 2014). Therefore, the purpose of the present study is to examine the direct effect of morphological awareness on reading comprehension in FI children, including any cross-language effects. As well, we propose to examine the indirect effect of morphological awareness on reading comprehension through sentence comprehension.

Specifically, we will have four research questions:

- Does French morphological awareness have a direct effect on French reading comprehension?
- Does French morphological awareness have an indirect effect on French reading comprehension mediated through French sentence comprehension?
- Does English morphological awareness directly affect French reading comprehension?
- Does English morphological awareness also have an indirect effect on French reading comprehension mediated through French sentence comprehension?

## HYPOTHESIS

We expect to find a direct effect of French morphological awareness on French reading comprehension. We also expect the effect of French morphological awareness on French reading comprehension to be mediated through French sentence comprehension.

For the cross-language models, we predict that there will be a direct effect of English morphological awareness on French reading comprehension. But, it remains unclear if English morphological awareness will have an indirect effect on French reading comprehension.

## METHOD

### PARTICIPANTS

GRADE	N	STREAM
3,5	200	FI

## METHOD

CONSTRUCT	Measures
Working memory	<b>CTOPP-2:</b> Memory for Digits subtest
Morphological awareness (English and French; Singson et al., 2000)	She hoped to make a good: A. Impressive B. Impressionable C. Impression D. Impressively
Sentence comprehension (French)	Il y a une quantité innombrable d'oiseaux dans le ciel. 
Reading comprehension (French)	Gates-MacGinitie Reading Tests – Second Canadian Edition

## DATA COLLECTION PROCEDURE

Data collection will be conducted with students in a quiet area of their schools. Students will meet one on one with a trained research assistant to complete language and reading measures once a week for one hour over a period of four weeks. Two weeks will be dedicated to the measures in each language. All sessions will be audio recorded using a voice recorder.

## DATA ANALYSIS

Structural equation models will be used to create pathways from morphological awareness to reading comprehension with sentence comprehension as a mediator and working memory as a control variable.

## IMPLICATIONS

The results of this study will benefit FI teachers since they will provide immediate feedback on language and reading development in upper FI elementary students. Understanding the role that morphological awareness and sentence comprehension play in reading comprehension will guide the teaching practices in Canadian FI programs. We will aim to share the sentence comprehension and morphological awareness measures in English and French with educators in FI.

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