

# Reverse transfer of metacognitive reading strategies of Moroccan trilingual learners

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## Abstract

The Linguistic Interdependence Hypothesis assumes that certain L1 language skills can be positively transferred during the process of L2 acquisition. While the transfer of linguistic skills from L1 to L2 has been studied extensively, only few studies have investigated the reverse transfer of skills. This study examined whether training poor readers in reading strategies in English (L3) would lead to an improvement in the process of reading in French (L2) and Arabic (L1). The Metacognitive Reading Strategies Questionnaire (MRSQ) (Abu-Rabia, 2018) was administered to 30 first-year baccalaureate students before and after the intervention. The participants were purposively selected and randomly assigned to an experimental group (20) and a control group (10). Findings indicated a significant improvement in the experimental group's metacognitive strategy awareness in English, French and Arabic.

Keywords: Strategy awareness, trilingual learners, CRT, reading strategy instruction

## Introduction

Reading comprehension is a complex process that requires the use of multiple (meta-)linguistic and (meta-)cognitive skills (Perfetti et al., 2005). Regarded as tools that facilitate understanding of texts, (meta)cognitive reading strategies (MCRS) are found to ameliorate reading comprehension outcomes (Wu et al., 2021). Current research has documented the use of MCRS in first language L1 and second language L2 and results have reported a forward transfer of MCRS from L1 to L2 (Abu-Rabia, 2018; Rabadi et al., 2020). These findings support Cummins' (1979) *Common Underlying Proficiency* (CUP) hypothesis, which assumes the existence of one common language proficiency that enables bilinguals to transfer acquired (meta-)linguistic skills from one language to another.

Talebi (2012) examined the effect of reading strategy training in English (L2) on improving reading strategy awareness of Iranian learners of English (L2) and Persian (L1). Results showed that the participants in the experimental group revealed a reverse transfer of reading strategies from L2 to L1. The researcher concluded that teaching reading strategies in L2 can boost students' reading strategy awareness and reading comprehension skills in both L2 and L1. Talebi's (2012) findings are supported by the Cognitive Retroactive Transfer (CRT) hypothesis, which proposes a reverse transfer of language skills from L2

to L1 after intervention (Abu-Rabia & Bluestein-Danon, 2012; Abu-Rabia et al., 2013). The present study examined whether training poor readers in reading strategies in English (L3) would lead to an improvement in the process of reading in French (L2) and Arabic (L1).

## Methods

### Participants

Data were collected from 30 first-year baccalaureate students from a High School in El Jadida, Morocco. Based on their performance in reading comprehension tests in English, French and Arabic, the participants, who scored less than 6 out of 10 in the study languages, were purposively selected and randomly assigned to an experimental group (10 females, 10 males, mean age: 17.20, SD: 0.951) and a control group (5 females, 5 males, mean age: 17.10, SD: 0.876). The participants started learning Standard Arabic as L1 in grade 1, French as L2 in grade 2 and English as an L3 in grade 9. To internalize MCRS, only the experimental group received explicit instruction in reading strategy awareness.

### Material and procedure

Both groups were administered a reading comprehension task (one in English, one in French and one in Arabic) and the MRSQ (Abu Rabia, 2018), translated into Arabic, to assess the participants' reading strategy use in the study languages before and after the intervention. The experiment group received a twelve-week explicit instruction in the use of MCRS twice a week (45 minutes in each training session). The difference between metacognitive strategy awareness means before and after the intervention was examined using one-way MANOVA.

## Results

Results regarding the participants' reading strategy use revealed significantly higher means in the experimental group's use of MCRS when doing the reading comprehension tasks after the intervention (English: 3.95, SD: .33; French: 4.06, SD: .41; Arabic: 4.01, SD: .39) than the control group (English: 1.88, SD: .19; French: 1.85, SD: .12; Arabic: 1.90, SD: .13). The results of the MANOVA test revealed no significant difference between the experimental group and the control group at the level of MCRS use before intervention: Wilks'  $\Lambda = .90$ ,  $F(3, 26) = .96$ ,  $p = .424$ , partial  $\eta^2 = .10$ . However, the MANOVA results yielded a significant difference between the two groups after the intervention: Pillai's Trace = .93,  $F(3, 26) = 124.59$ ,  $p < .001$ , partial  $\eta^2 = .93$ . Tables 1 and 2 summarize the results of the descriptive statistics.

Table 1. Means of the experimental group's MCRS use.

	English		French		Arabic	
	Means	S. D.	Means	S. D.	Means	S. D.
Before	1.89	.25	1.98	.29	2.01	.33
After	3.95	.33	4.06	.41	4.01	.39

Table 2. Means of the control group's MCRS use.

	English		French		Arabic	
	Means	S. D.	Means	S. D.	Means	S. D.
Pre-test	1.80	.18	1.83	.18	1.85	.12
Post-test	1.88	.19	1.85	.12	1.90	.13

## Discussion

Findings indicated a significant improvement in the experimental group's MCRS use in all the study languages. Regarding the use of MCRS, the experimental group in our study significantly obtained higher means of MCRS use when reading an academic text in English, French and Arabic than the control group. This is consistent with Talebi's (2012) results, which showed that the experimental group revealed a reverse transfer of reading strategies from L2 to L1 among Iranian learners of English (L2) and Persian (L1). Our finding aligns with previous research (Talebi's, 2012; Wu et al., 2021), which indicated that teaching reading strategies in L2 boosted students' reading strategy awareness in both L2 and L1. Accordingly, we argue that explicit instruction in MCRS in L3 can have a positive impact on trilingual learners' reading strategy awareness in all study languages after the intervention.

The study has pedagogical implications for language teaching/learning theory. The findings can provide language teachers with some insights into the importance of MCRS in students' reading activities. We recommend that explicit strategy instruction in MCRS can facilitate the learning process of languages and encourage learners to become autonomous. Also, a link between the different languages taught at school should be established by adopting a multilingual education approach. This way, skills and strategies learned in one language may transfer from one language to another.

One limitation of this study is that it was based only on a small sample with 10 participants in the control group and did not consider the effects of the intervention on the reading comprehension outcomes in all the study languages. Future research is needed to further investigate this area of research with a larger sample and special focus on the effects of L3 strategy training on reading strategy awareness levels and reading comprehension outcomes in L2 and L1.

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