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THE RELATIONSHIP BETWEEN READING AND LISTENING SKILLS WITH THE SELF-CONCEPT IN STUDYING OF RUSSIAN AND ENGLISH IN AZERBAIJAN

Summary of the PhD Dissertation

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THE CONTEXT AND PROBLEM OF THE STATEMENT

Throughout centuries researchers studied versatile constructs which can impact on students' behavior and attitudes in educational settings. One of these constructs is self-belief, which influences students' behavior, motivation, and attitudes (Dörnyei, 2001). Many researchers (e.g., Dörnyei & Ushioda, 2009) acknowledge that learners' attitudes and behavior are determined by their sense of self which is difficult to predict. Language learners' performances are varied according to their beliefs and attitudes towards the foreign language, which are also influenced by their experience. Therefore, self-related constructs (self-concept, self-esteem and self-efficacy) provide better comprehension to understand students' feelings and abilities. Among these constructs, self-concept plays a significant role in academic settings, particularly language learning. Self-concept is not only related to one's beliefs about oneself and his or her abilities, particularly cognitive domain but also one's feelings about oneself in evaluative, affective domain (Marsh & Martin, 2011).

Recent research (Xu et al., 2013) has focused on the domain-specificity of academic self-concept. The focus of domain-specific research mainly found out that there are separate self-concept constructs for each school subject which demonstrated high positive relations with their achievements in the corresponding domain. In the context of research on self-concept, there is a shortage of the studies which extended domain-specificity of academic self-concept to skill-specific self-concepts contrasting them with mathematics. Moreover, few studies (Arens & Jansen, 2016) examined self-concept in the verbal domain indicating separate skill-specific self-concepts. Thus, the focus of this study is placed on the receptive self-concepts and their relationship with achievements in Russian and English in Azerbaijan.

Furthermore, as Arens et al. (2011) indicated "in contemporary self-concept theory, it is a controversial question as to whether each separate domain of academic self-concept is further differentiable into a cognitive and affective component." (p. 971, 972), it is essential to reveal self-concept structure, regarding cognitive and affective dimensions of self-concept. Moreover, there was a shortage in studies that showed verbal self-concept structure regarding cognitive and affective components, and their relations with matching and nonmatching domains; learners' verbal self-concept should be investigated.

THEORETICAL BACKGROUND

Being desirable for as a factor that can help increase the sort of student performance assessed in PISA, most researches in self-regulated learning have showed that individuals' who are able to regulate their own learning, they can achieve success in school that impacts on the degree of engagement in their further learning (OECD, 2003). Indeed, interest in specific subject affects both degree and continuity of engagement in learning. An individual is interested in particular subject domain inclines to be diligent that may vary in terms of degree of general learning motivation. Therefore, the nature of students' interests in different subjects is an important for finding out significant strengths and weaknesses that education systems attempt to foster, particularly motivation in order to learn in different school domains among various groups of learners. Depicting individuals' self-beliefs about their intellectual strengths and weaknesses, self-concept is subjective belief about the qualities that describe those (Trautwein & Möller, 2016).

Since there was huge amount of literature about self-related constructs (e.g., Silverthorn et al. 2005) and popularity of them that in the first glance it seemed it would lead to better

understanding, but it might result in confusion and difficulties. Overlapping definitions and terminology of various self terms, and inconsistent usage impede comprehension process. It was investigated by different fields and disciplines. While it has been regarded essential in education (Guay, Ratelle, Roy & Litalien, 2010), currently, self-concept is a centre of interest in foreign language learning (Csizer & Magid, 2014).

Shavelson et al. (1976) determined 17 different definitions of self-concept. Self-concept is a collection of beliefs about oneself (Leflot, Onghena & Colpin, 2010) that involves academic performance, gender roles (Hoffman, Hattie & Borders, 2005), racial identity (Aries, Olver, Blount, Christaldi, Fredman & Lee, 1998) and has to be taken into consideration as one of the most important factors in human learning. Shavelson et al. (1976) pointed out that person's self-perceptions are formed through experience and interpretations of one's environment that impact on nature human acts and these acts impact on one's self-perception. This reciprocal relation is vital as both an outcome and as a mediating variable that facilitate explanation of other outcomes. Intervention that inadvertently erodes self-concept can be hardly to have long-lasting effects on implied outcomes comparing to that intervention which strengthens self-concept and its outcome that leads to long-lasting effects (Marsh & Peart, 1988). Moreover, interventions that target specific domains of self-concept are considered the most successful (O'Mara et al., 2006). She revealed the highest effect size of studies which targeted a specific self-concept domain and assessed that specific domain indicating global scales may obscure real benefits of self-concept interventions.

Recently, as domain-specific function of self-concept (Marsh et al., 1988) is revealed by several studies, it is important to determine what the term of "domain" means, how it is understood. The term "domain" is mostly considered to indicate a subject area, while it might also denote a type of skill. In other words, domain-specificity should not be considered as scales of measurement but it may also imply from specific skill areas such as reading comprehension in English to more general areas such as social science (Bong & Skaalvik (2003, p.17).

Since many researchers recognized individuals' self-beliefs as a basis of academic success, self-constructs play pivotal role in academic motivation (Pajares & Schunk, 2005). Therefore, self-concept is the main construct which plays key role in all academic domains. Most practitioners (Dörnyei 2001) acknowledged that learners' dynamic self-beliefs are main factors that contribute to the development of complexity and variation in language learning, and most of language self-concept studies defined self-concept as psychological construct that focused on foreign language learners' self-description of competence and evaluative feelings about themselves and currently, more domain-specific level of specific foreign language is the core of the discussion which corresponds my dissertation.

THE STUDY AIMS AND METHODOLOGY

Research Aim

Although numerous studies (Arens & Jansen, 2016) have been conducted to reveal multidimensionality and hierarchy for specific languages, it remains implicit if these differ across different foreign languages. This study aims to reveal the structure of verbal self-concept examining the structure of multidimensionality and hierarchy within the verbal domain, whether this structure generalizes or varies across two target languages. In this study students' perceptions were analyzed to confirm if they would distinguish between skill-specific self-concepts associated with reading and listening. Further, achievement measures were utilized to reveal the structures of verbal self-concepts (Arens & Jansen, 2016) indicating hierarchy and multidimensionality of verbal self-concepts. Achievement tests enable comparisons among different classes and schools, even though they are weakly related to self-concept. The present study integrates self-concept and achievement scales of English and Russian. Generally, the present study aims to examine students' language achievement and its relation to self-concept how students perceive themselves as language learners and how they construct their self-concept in the verbal domain. This study's central hypothesis is to reveal the multidimensional and hierarchical structure of verbal self-concept for two target languages and its strong association with achievement scores.

Research methodology

This study employed a cross-sectional study design to reveal the relationship between English and Russian receptive skills and self-concept in Azerbaijan. Since self-concept is not characteristic for Azerbaijan, in other words, this area was not studied, the cross-sectional study was considered appropriate for future enquiry that provides a single snapshot for researchers with data for future investigation.

Samples

Samples were drawn from 16 schools of 12 administrative districts of Baku city (the capital of Azerbaijan). The total sample of 540 students (boys 48.9%, girls 51.1%) participated in the study. Without background features, participants were drawn randomly. Students' participation in the tests was mandatory while they voluntarily participated in the survey, and parental consent was received. Despite the author explaining the present study's primary aim, this study included supplementary and explanatory information to facilitate student comprehension. All students were ensured anonymity and confidentiality of their responses.

Instruments

Self-concepts in three subjects were measured by adaptation of Self-Description Questionnaire II (Marsh, 1990) in listening and reading skills of English and Russian. The same two-way translation procedure implemented to translate the questionnaire into Azerbaijani. The same item sets were used in both target languages and math and were asked to consider only one respective subject domain while responding the items. Language tests were adopted from Célnyelvi mérés (2013/2014) and were skill-specific (listening and reading). Achievement tests in mathematics were adapted from TIMSS (Trends in International Mathematics and Science Study, 2011).

Procedure

As nowadays computer-based assessment is the demanded and current trend in research (Csapó, Molnár, & Nagy, 2014), the online data collection was performed through the Electronic Diagnostic Assessment (eDia) platform (Csapó & Molnár, 2019) for all studies.

Data Analysis

The data was analysed due to applying the software Mplus7.31 (Muthén & Muthén, 1998-2015) and the software ConQuest 2.0 (Wu et al., 2007). Multiple group analysis was conducted to reveal differences between gender in the second part of the study. Furthermore, item response models (IRT) were used as they aligned with the research aim of identifying the students' ability in two domains of skill-specific English and Russian, mathematics domain and general language domains of English and Russian.

Several sets of models were conducted within the structural equation modeling (SEM) framework, which is recognized as an adequate method for examining hypotheses and models. As scales consisted of parallel wording such as "I am good in English", the model fit could incline to be inadequate and the parameter estimates prone to be biased, inducing incorrect outcomes (Xu et al., 2013). Hence, correlated uniqueness was suggested in the models, when the same item is used for multiple domains (Marsh et al., 2012). Moreover, the study included a comparison of nested models. Considering the dependency of chi-square value on participants' number, most studies (e.g., Byrne, 2012) suggested various goodness of fit indices for assessment and comparison of nested models. Invariance occurs when the value of CFI does not decrease more than .01, and the value of RMSEA does not increase more than .015 between non-restrictive and restrictive models.

THE RESULTS OF THE STUDY

|This study's central hypothesis was to reveal the multidimensional and hierarchical structure of verbal self-concept for two target languages and its strong association with achievement scores. The higher-order models (Figure 1C) based on first-order factors of skill-specific self-concepts (listening and reading) and besides global self-concept resulted in inadequate levels of fit.
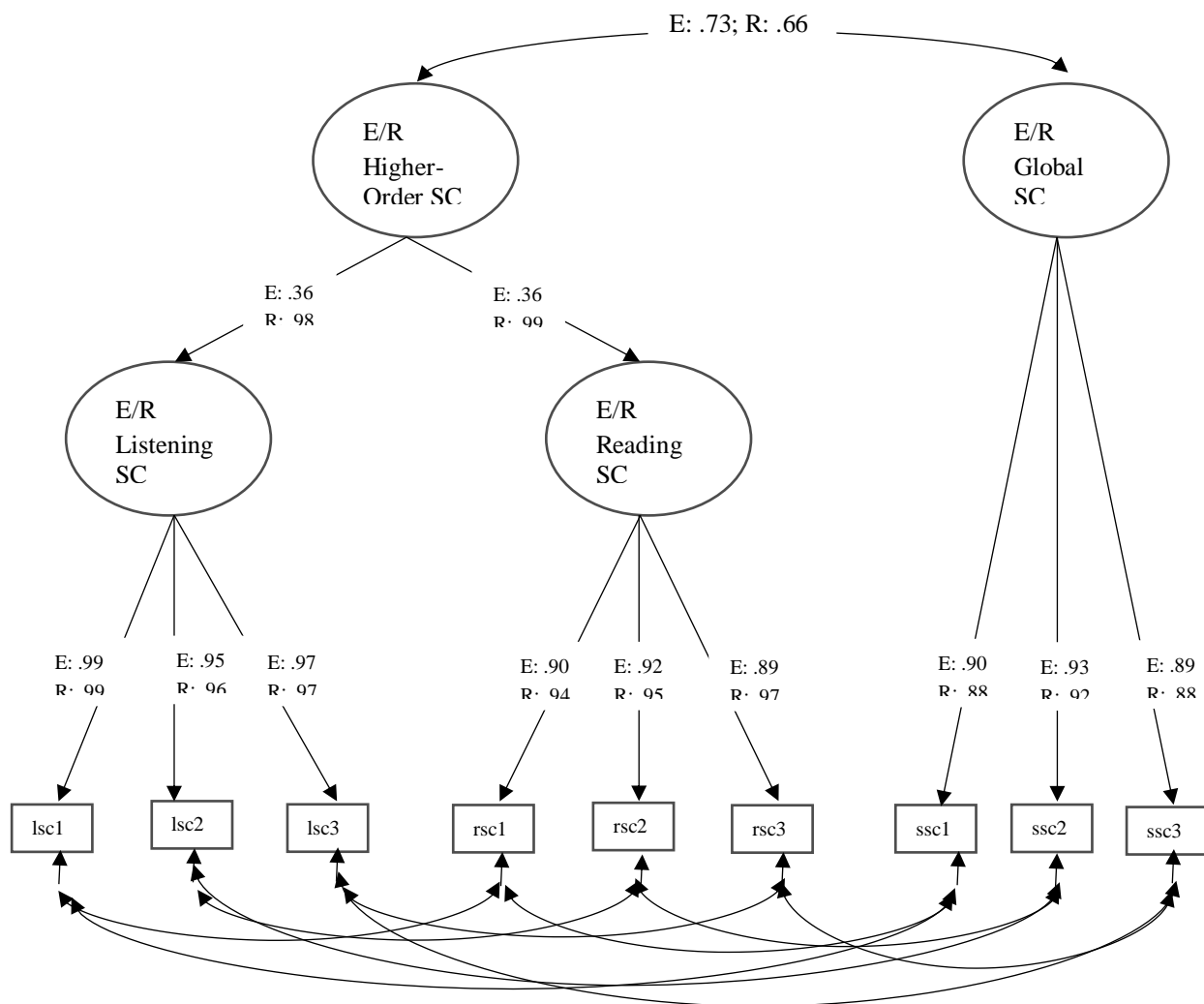
Figure 1. Higher-order model for English and Russian + global self-concept. Tested measurement models (Table 1, Model 1-6), all parameters are standardized. The covariances for self-concept item residuals were correlated uniqueness for the parallel worded items. *Note.* E = English; R = Russian; SC = Self-Concept. All parameters were statistically different from zero ($p<.001$).

Standardized loadings of the first-order skill-specific self-concept factors provided evidence for well-defined high order factor. The relation between higher-order and general factors was high in both languages demonstrating slight high in English ($r = .73$, $p<.001$) compared to Russian ($r =.66$, $p<.001$). Therefore, these results provide evidence for the coexistence of multidimensionality and hierarchy within specific language self-concepts.

To further contribute to the concept of multidimensionality, student's achievement in listening and reading achievement tests were incorporated, and the relation between skill-specific self-concept and achievement was assessed.

DISCUSSION

Supporting the concept of hierarchy and multidimensionality within the structure of self-concepts associated with students' English and Russian as foreign languages, this study findings are consistent with previous studies' results (Arens & Jansen, 2016). The notion of multidimensionality between verbal self-concept was supported by the fact that models' differentiation between skill-specific self-concepts in reading and listening fitted data better than unidimensional models. Moreover, the skill-specific self-concept facets were revealed to be not ideally correlated to one another, providing evidence of their distinction. The notion of hierarchy between verbal self-concept was supported by integrating skill-specific self-concept facets correlated with reading and listening into the higher-order factor that was revealed to be highly associated with global self-concept factor. Furthermore, from this study, it was also evident that correlations between skill-specific facets varied according to the target language. While the low correlation was revealed between listening and reading self-concepts in English, there was a high correlation between skill-specific facets of Russian self-concept. However, this difference did not have an impact on the hierarchical structure of verbal self-concept. This concept was further supported by incorporating achievement measures that provided a complementary approach to examine the structure of self-concept within verbal self-concepts.

Overall, these findings correspond to previous results and support the structure of academic self-concept. Contrary to the weak correlation of mathematics and verbal self-concepts (Marsh et al., 2001), the relation between self-concepts for two target languages in a verbal domain is a high supporting hierarchical structure of verbal self-concept. However, Henschel et al. (2013) provide evidence for further differentiation within reading self-concept, focusing on text type.

In conclusion, as the most studies (Xu et al., 2013) pointed multidimensionality within verbal self-concept, these findings support multidimensional nature of self-concept emphasizing students' ability to differentiate between skill-specific self-concept facets. However, it also provides evidence for the hierarchical structure of self-concept pointing coexistence of multidimensionality and hierarchy simultaneously.

LIMITATIONS, FUTURE RESEARCH, AND PRACTICAL IMPLICATIONS

Although it contributes to support twofold multidimensional and domain-specific nature of the verbal domain of self-concept, certain limitations should be considered. As the nature of self-concept is not stable but rather dynamic, it requires a deep understanding of verbal domain within different languages. Thus, longitudinal studies are needed to examine the development of students' abilities to distinguish between two dimensions (cognitive and affective) within verbal self-concepts. Since we focused only on foreign language domain, it is necessary to study how verbal domain differentiates between foreign languages, native tongue, and productive skills. Moreover, as the main limitation of the cross-sectional design is the absence of temporal precedence that might not be a liability in estimating reciprocal causation, this design restricts the inspection of relations between self-concept and achievements. Furthermore, the careful analysis revealed differences between two foreign languages which might initiate further studies on differences and similarities of different foreign languages. As we found the multidimensional structure to have good data, further differentiation within skill-specific self-concepts might be considered. It might enhance domain specificity of self-concept within foreign languages. Moreover, educators are suggested to consider students have separable competence-related and affect-related self-concepts. Therefore, inferring students' affective perceptions from their competence self-perceptions would lead to misleading interpretations.

Students' cognitive and affective perceptions should be considered separately in each subject domain, and it is necessary to assess them by different scales.

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