POSITIVE YOUTH DEVELOPMENT AND PISA READING ACHIEVEMENT IN IMMIGRANT STUDENTS: THE CASE OF SLOVENIA, PORTUGAL AND HUNGARY

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Abstract

Using PISA 2018 data from Slovenia, Portugal, and Hungary, this article explores how the Positive Youth Development (PYD) model's 5Cs (competence, confidence, connection, character, caring) relate to reading achievement. Comparisons among first- and second-generation immigrants and native students reveal significant differences and commonalities in 5Cs and reading achievement across countries. The study emphasizes the need for tailored educational strategies, recognizing variations in predictors within and between student groups and countries, and urging policymakers and educators to create inclusive environments that support positive student development.

Keywords: *Positive Youth Development, 5Cs, PISA 2018, reading achievement, immigrant status.*

1. Introduction

The impact of immigrant backgrounds on personal development, acculturation, and psychological well-being remains unclear, as studies (Correa-Velez et al., 2017; Motti-Stefanidi & Masten, 2017) show mixed results. Immigrant students often face challenges such as discrimination, racism, and mental health issues due to their low socioeconomic status (Correa-Velez et al., 2017; Fazel et al., 2005). However, they also develop adaptability and flexibility skills, forming diverse friendships, learning new languages, and managing emotions, contributing to positive outcomes (Nunn et al., 2014).

Two phenomena are connected to migrant adaptation. The "immigrant paradox," where first-generation immigrants outperform second-generation immigrants and native students, has been explored in the USA and Canada (Garcia-Coll & Marks, 2012) but less in Europe (Dimitrova et al., 2017). On the other hand, "migration morbidity," describing immigrants' adaptation challenges, has been studied in 14 European countries. Adaptation success depends on family and peer relationships, perceived discrimination, and embracing both host and ethnic cultures (Dimitrova et al., 2017).

In studying Positive Youth Development (PYD), the 5Cs model (competence, confidence, connection, character, caring) is widely used (Kozina & Pivec, 2020; Lerner et al., 2012, 2015; Wiium & Dimitrova, 2019). Chosen for its empirical support and flexibility (Heck & Subramaniam, 2009), PYD focuses on identifying and supporting strengths rather than deficits, enhancing positive development and resilience (Masten, 2014). In exploring differences in the perception of the 5Cs among native, second-generation, and first-generation immigrants, this model provides a valuable framework for understanding and promoting positive youth development.

This contribution analyzes PISA 2018 data to explore how the 5Cs influence successful adaptation and predict reading achievement. It assesses outcomes for first- and second-generation immigrant students and native students in Slovenia, Portugal, and Hungary, selected based on the Migrant Integration Policy Index evaluation of educational system responsiveness. By comparing migrant and native students, the study identifies key 5Cs impacting achievement and evaluates variations in these predictors based on students' immigrant status. The objective is to pinpoint the essential 5Cs for successful adaptation, providing valuable insights for policymakers and educators.

2. Methodology

Participants. The present research examines three representative samples of migrant students from PISA 2018 in Slovenia ($N_{first-generation} = 213$; $N_{second-generation} = 200$; $N_{total\ sample} = 5,088$), Portugal ($N_{first-generation} = 104$; $N_{second-generation} = 172$; $N_{total\ sample} = 4,902$), and Hungary ($N_{first-generation} = 38$; $N_{second-generation} = 54$; $N_{total\ sample} = 4,253$). The PISA survey specifically targets 15-year-old students.

Sampling and procedure. A two-stage stratified sampling method selected schools enrolling 15-year-olds, then sampled 42 (or fewer) students within each school to maintain representativeness. These meticulous methods preserved the test population's representativeness, with students spending around 35 minutes on the background questionnaire.

Instruments and included variables. Each surveyed student completed a background questionnaire, forming the basis for later scale derivation. PISA employed the plausible values (PVs) imputation technique, incorporating ten PVs per student for each scale and subscale in the international database. Students were grouped by immigrant background, distinguishing between first-generation (foreign-born with foreign-born parents) and second-generation immigrants (born in the destination country with one or both foreign-born parents). Reading achievement in PISA assessed the ability to comprehend, utilize, and contemplate written texts, with the mean score as the metric. Competence was gauged through students' perceptions of the PISA test difficulty on a 4-point Likert scale. Confidence, measured by resilience, involved a 4-point Likert scale assessing students' ability to handle stressful situations. Connection, evaluating the sense of belonging to school, used a 4-point Likert scale. Character, assessed through respect for other cultures, involved a 5-point Likert scale. Caring, evaluated through perspective-taking, used a 5-point Likert scale to measure students' ability to consider others' perspectives.

Statistical analysis. Descriptive statistics and correlations assessed multicollinearity initially. Linear regression identified predictors of reading achievement for each student group in each country. IEA IDB Analyzer (Version 5.0.17) was used for data analysis, considering the two-stage sampling with individual student and sample weights.

3. Results and discussion

All regression models are statistically significant and account for from 18 % to 46 % of the variance of the students' reading achievement scores.

Table 1. Results of the regression analysis predicting students' reading achievement in PISA 2018.

	Slovenia			Hungary			Portugal		
	b (SE)	B (SE)	R^{2*} (SE)	b (SE)	B (SE)	R^{2*} (SE)	b (SE)	B (SE)	R^{2*} (SE)
First-generation migrant students									
	446,53 (8,15)			511,61(12,56)			453,98(10,09)		
Competence	-30,83 (-0,37)*	-0,37 (0,07)*		-35,55 (14,14)*	-0,40 (0,15)*		-20,36 (10,13)*	-0,21 (0,10)*	
Confidence	-7,48 (7,13)	-0,09 (0,09)		6,00 (13,23)	0,06 (0,13)		-1,49 (10,62)	-0,01 (0,10)	
Connection	17,51 (7,58)*	0,19 (0,07)*		-20,07 (14,47)	-0,21 (0,14)		7,09 (7,93)	0,08 (0,09)	
Character	14,63 (6,75)*	0,16 (0,07)*		46,34 (12,79)*	0,52 (0,15)*		20,01 (12.01)	0,20 (0,12)	
Caring	10,99 (5,96)	0,14 (0,08)	0,26 (0,07)	-11,99 (20.36)	-0,11 (0,19)	0,46 (0,11)	13,68 (8,72)*	0,16 (0,10)*	0,18 (0,07)
Second-generation migrant students									
	467,71 (7,30)			524,75(11,63)			486,99 (8,90)		
Competence	-16,68 (7,24)*	-0,21 (0,09)*		-37,69 (10,84)*	-0,45 (0,12)*		-41,52 (9,94)*	-0,42 (0,10)*	
Confidence	-3,35 (7,04)	-0,04 (0,09)		-13,40 (15,12)	-0,15 (0,18)		-16,62 (7,62)*	-0,16 (0,07)*	
Connection	-7,39 (6,88)	-0,07 (0,07)		4,77 (11,00)	0,05 (0,12)		9,14 (5,27)	0,11 (0,07)	
Character	26,48 (7,62)*	0,31 (0,08)*		4,34 (13,93)	0,05 (0,16)		12,89 (8,56)	0,12 (0,08)	
Caring	4,03 (6,63)	0,05 (0,08)	0,18 (0,01)	-2,77 (17,74)	-0,02 (0,16)	0,20 (0,11)	2,94 (8,07)	0,03 (0,08)	0,24 (0,07)
Native students									
	507,02 (1,32)			492,92 (2,08)			497,98 (10.09)		
Competence	-26,48 (1,48)*	-0,28 (0,02)*		-36,41 (1,69)*	-0,36 (0,02)*		-38,71 (1,42)*	-0,40 (0,01)*	
Confidence	2,71 (1,76)	0,03 (0,02)		-1,59 (1,73)	-0,02 (0,02)		-4,83 (1,94)	-0,05 (0,02)*	
Connection	2,77 (1,76)	0,03 (0,20)		0,75 (1,60)	0,01 (0,02)		-2,97 (1,67)	-0,03 (0,02)	
Character	25,54 (1,73)*	0,27 (0,02)*		24,33 (1,64)*	0,26 (0,02)*		19,94 (2,31)*	0,19 (0,02)*	
Caring	-2,42 (1,68)	-0,02 (0,02)	0,26 (0,07)	2,92 (1,71)	0,03 (0,02)	0,26 (0,01)	3,53 (1,85)	0,04 (0,02)	0,23 (0,10)

Notes. Owing to the nested sampling design, data were weighted with Final Student Weight. To increase the possibility of generalisation, we used adjusted R2. Multiple regression was conducted (forced entry method) on IDB Analyzer (IEA DPC, v.3.2). The assumption of multicollinearity was tested on all data sets and was not violated (the VIFs were lower than 10 and varied between 1.12 and 1.25). Statistically significant ($p > 0,05$) coefficients are marked with *.

It can be seen that competence is the strongest predictor of reading achievement in all three countries for all three groups of students, where those students who deemed the PISA test more difficult reached lower reading achievement. In Slovenia, character was a statistically significant predictor of reading achievement in all three groups, where higher respect for different cultures was connected to higher reading achievement. Character was a statistically significant predictor of reading achievement also for native students in Hungary and Portugal and Hungarian first-generation migrant students.

The study reveals that competence strongly predicts reading achievement across student groups in Slovenia, Hungary, and Portugal, aligning with the PYD framework's emphasis on competence.

Students perceiving the PISA test as more challenging tended to have lower reading scores, highlighting the importance of self-perceived competence in academic tasks. Additionally, character emerged as a significant predictor of reading achievement, with respect for different cultures consistently linked to higher scores in Slovenia. This finding extends to native students in Hungary and Portugal, along with Hungarian first-generation migrant students, indicating cross-cultural relevance of character in academic success. These results affirm the universality of PYD principles across diverse contexts.

In conclusion, the study supports the PYD framework by emphasizing the crucial role of both competence and character in predicting reading achievement. Interventions targeting enhanced competence perceptions and fostering positive character traits, such as cultural respect, may contribute to improved reading outcomes and overall well-being across diverse student populations.

4. Conclusions

In conclusion, our PISA 2018 analysis in Slovenia, Hungary, and Portugal aligns with the PYD framework, emphasizing competence and character as pivotal in shaping reading achievement. Competence strongly predicts reading achievement, highlighting the significance of students' self-perceived abilities, since those finding the PISA test challenging exhibit lower reading scores, underscoring the importance of perceived competence. Character, particularly respecting different cultures, consistently predicts higher reading achievement across diverse student groups. These findings emphasize the PYD framework's applicability in promoting positive outcomes in varied cultural contexts. Interventions targeting enhanced competence perceptions and positive character traits, including cultural respect, may enhance reading outcomes and overall well-being.

The cross-national approach provides insights for policymakers and educators, emphasizing the universal importance of competence and character in academic success among immigrant and native students. As we explore youth development intricacies, these findings underscore the potential impact of 5Cs-based interventions for positive development and resilience across diverse socio-cultural backgrounds.

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