

# School maladjustment of immigrants: the self-concept neglected in the Psychology and Education studies of PISA series

<sup>1</sup>Sandra Figueiredo, <sup>2</sup>Odete Nunes, <sup>3</sup>Margarida Alves Martins

**Abstract**--The last generation of immigrants has revealed different indicators in academic and cognitive performance in recent years. In different editions, the Organization for Economic Cooperation and Development (OECD) has evaluated the achievement of young students (aged 15 years old) in different academic areas (such as Sciences and Reading) as well as the performance of the first and second generation of immigrants. The immigrants were revealed to have fragile positions in school performance and negative indicators for their professional future by comparing to the native peers. Based on the PISA's most recent edition (OECD, 2016), regarding the Portugal's database of 438 immigrant cases, we examined background characteristics - length of residence (LOR) and type of generation (first or second) - as well as concerning inclusion and self-concept aspects that are measured using PISA items such as the School Adjustment. We intend to test the effect of the length of exposure in school adjustment of young immigrant students. We had followed the statistical analysis protocol determined by the PISA by means of sampling weights and plausible values using the IDB Analyzer. Students with low length of residence have more tendency to the maladjustment. However, other groups, especially those with periods of long-term residence between four and five years, also face substantial levels of school maladjustment. These data are important to understand the efficiency measures to be implemented in Portuguese schools, with replication in other European and non-European contexts, in order to reduce the stress indices in immigrant students and to avoid compromising their academic and economic future in the host countries.

**Keywords**--school maladjustment, self-concept, human rights, inclusion, Portuguese, PISA assessment, Psychology, Education.

## I INTRODUCTION

Recent immigrants' populations (referring to second generation) are changing in a different rhythm concerning their countries of origin and countries of destination. Europe is welcoming different immigrants' groups (respecting the ethnicities and the reason of mobility) and part of that population is our concern for this study: the young students (Huget, Navarro, Chireac & Sansó, 2013; Nygard, 2017). These are facing hosting schools that, at

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<sup>1</sup>Associate Professor of Department of Psychology and Sociology, Universidade Autónoma de Lisboa, Luís de Camões (UAL), Address: Rua Santa Marta, Palácio Dos Condes Do Redondo 56, 1169-023, Lisbon, Portugal

PhD in Psychology, Post-Doctoral Research in Education, Integrated Researcher of I&D CIP – Psychology Research Centre (CIP/UAL), Contact: sfigueiredo@autonoma.pt

<sup>2</sup>Director of Department of Psychology and Sociology and Head Coordinator of I&D CIPPsychology Research Centre;Universidade Autónoma de Lisboa, Luís de Camões (UAL), Address: Rua Santa Marta, Palácio Dos Condes Do Redondo 56, 1169-023, Lisbon, Portugal.

<sup>3</sup>Full Professor of ISPA- Instituto Universitário, Head Coordinator of Center for Education Research (CIE)  
Address: Rua Jardim do Tabaco 34, 1100-304 Lisboa

the same time, are struggling to understand the inclusion of immigrants and also other group in high mobility: refugees (Eres, 2016; Desiderio, 2016; Rubinstein, 2016). On the other hand, the immigration in Europe is differently hosted considering the countries' history and their adaptation measures (Agasisti & Zoido, 2018; Eres, 2016; Organization for Economic Cooperation and Development, OECD, 2016; Schnepf, 2007). Regarding the theme of 'country', there is the other facet: the country of origin (of immigrants). The countries of origin presuppose that they have several variables to be considered: educational system and (poor) prior knowledge referring to academic competencies, socioeconomic situation (developed or underdeveloped), language proficiency, parents' support culture, among other factors (Cordero, Cristobal & Santín, 2018; Schnepf, 2007).

Between the country of origin and the country of destination we find the main variable of our research: the length of residence (LOR). Firstly, it is important to comprehend how the literature defines the LOR and which variables are implicitly related: the age of onset of acquisition (AOA). In Second Language (SL or L2) Acquisition Research, LOR is defined as the time/exposure of the immigrant to the language and to the culture of the host country. The age of acquisition refers to the age of starting the L2 learning that matches with the arrival to the host country. The language learning is processed concerning the formal (school of the host country) and the informal settings (at home and mainly with the native peers and considering the community immersion).

For categories of LOR it should be outlined that the international literature defines "long-term exposure" as the five-year period of residence (Grubanov-Boskovic, Natale & Scipioni, 2017). It is expected and it was examined that the pupils with low exposure to the language (L2) will experience maladjustment especially in the school' context. Maladjustment should be clarified in the immigrants' background: low self-esteem when comparing to the native peers in the same classes, low achievement in general academic subjects, poor L2 skills, low motivation (mainly the intrinsic motivation) and loneliness. The loneliness and sense of belonging (at low stages) are enhanced when the individuals do not integrate large groups (the minorities that they 'belong to') as their own (identity and culture matching, the case of groups in the same school and classes with high representation of several nationalities). With respect to the results of the maladjustment, low professional expectations, high school dropout and/or mental health issues (Ali & Larsson, 2018; Hippe & Jakubowski, 2018).

Related to the negative results or the low academic scores of the minorities, in the European scenario, the Organization for Economic Cooperation and Development (OECD) developed the Programme for International Student Assessment (PISA) with the main task to assess the performance of students aged 15 years old, in the last years, from OECD and non-OECD countries. That assessment has targets such as Sciences and Reading skills. Another target of OECD is the assessment and comparison of performance of the first and second generation of immigrants (Factbook, 2016). However, there is a perspective that observes the method of PISA as an assessment that privileges the economic differentiation and growth (Hartas, 2015) and not the personal development. In fact, the PISA is widely used with success and allow to understand how the countries are placed in the 'skills' ranking and as well as how the students (natives and immigrants) are ranked within countries. The age selected for the PISA intends to examine the academic 'status' and professional expectations at the end of the compulsory education (OECD, 2016).

Concerning the maladjustment, the anxiety and well-being disturbances are more pronounced at this phase (in the high-school) (Wang, Chow, Hofkens & Salmela-Aro, 2015). Despite of the immigrants as being each more representative in the regular classes, the assessment is mostly devoted to the natives' results and the countries' comparison. Taking into account the length of residence of immigrants, the research, either in Psychology, in Education and in Economics, is still poor to understand the correlation between LOR and the maladjustment to

school (Bozick, Malchiodi & Miller, 2016; Martinez-Taboada, Mera, Amutio, Castañeda, Felt et al., 2017). That maladjustment is likely correlated to fragile achievement and to poor opportunities of professional opportunities. Right after the compulsory education, the immigrant students are at risk to the higher education access and to the labour market by comparing to the native peers (Grubanov-Boskovic, Natale & Scipioni, 2017).

The minorities are enrolled in a specific terminology that matters in the school adjustment concerning the inclusion and the self-concept that it is still misunderstood by the PISA (Burgess & Heller-Sahlgren, 2018; Ham, Yang & Cha, 2017). Our research question remains in the probability of significant impact of the LOR for school adjustment of the immigrants' students and influencing the advanced education for the next school' generations.

## II STUDY PROTOCOL

438 Portuguese immigrant students, aged 15 years old, 205 females and 217 males, attending the following school levels: from 3rd Cycle and Secondary School (reporting to the Portuguese Educational System). The pupils live in Portugal since different periods: ranging between 1 and 14 years (Mean = 8.6; Standard Deviation = 4.5) of residence (LOR).

The individuals answered to the PISA in accordance to the assessment protocol (OECD, 2016). All the test takers and raters were trained by the OECD team concerning the administration and the coding of the tests for each area: reading, science, maths and problem solving (Mâroco et al. 2016). During the solving test, several items were presented simultaneously but referring to another constructs: self-concept, school adjustment, parents' involvement, attitudes toward school, etc. We focused the school adjustment for this analysis as dependent variable (DV). The length of residence was the independent variable (IV). The method of answering followed the Item Response Theory (IRT). Portugal replicated, as protocol and as occurred for the previous PISA editions, the coding procedure applied to all countries enrolled at this assessment (OECD, 2016).

Concerning the IV, we proceed to the computation of the residence years of each subject in order to identify immigrants only and the different duration'periods. In this paper we are not reporting results concerning the two generation of immigrants available in the PISA database's. The DV is a 4 Likert items scale prepared to assess the adjustment (fit) of the young students to their schools. The feeling of 'being (a)part' (placement or displacement) of the school community is the main focus of this scale.

## III RESULTS AND DISCUSSION

The IDB Analyzer was the statistical programme for the coding and data treatment (OECD, 2016). We used the sampling weights of each student and the syntax ran in SPSS, version 24, IBM.

We carried out regression (linear) analyses in order to explore how the LOR predict the levels (1-4 levels) of school adjustment. The data proved significant impact of the LOR in school belonging (adjustment). Short-term residence was predicting in a large manner the school adjustment, although not applied to the all subjects:  $\beta = 0.051$ ;  $S.E. = 0.011$ ;  $t = 2.268$ ;  $R^2 = 0.13$ . By short-term residence we refer to the students who arrive <1 year at Portuguese schools. However, we observed that specific groups of long-term residents presented lower levels of adjustment to school and correlated to low expectations to professional career.

For short-term residence our data, in one hand, are supported by previous studies (Kia-Keating & Ellis, 2007; Salmela-Aro, Read, Minkkinen et al. 2018). On the other hand, immigrants with four years of exposure (residence in Portugal) showed also negative levels of belonging to school. One predictor associated to the LOR

might be the age of the individuals with 4years of LOR: age of 11 (pre-pubescent group). This is a critical age for mobility living and school adaptation (Dyce, 2019; Parker, Marsh, Ciarrochi, Marshall & Abduljabbar, 2014; Simmons, 2017). Other factors are concurrent for the maladjustment such as the poor parental investment in some ethnic groups, the fragile socioeconomic status and the low L2 proficiency (and negative attitudes associated to the L2 learning) (Figueiredo et al. 2008; OECD, 2015; Parker, Marsh, Ciarrochi et al. 2014). Further studies about the self-concept evaluated through the scales of PISA should be replicated in another countries to assure the immigrants' inclusion and their academic and professional future (Huget, Navarro, Chireac & Sansó, 2013; Weber, Kronberger & Appel, 2018).

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