

The Bioecological Model as a Perspective to Interpret Foreign-born Students' Early School Leaving: a Multifactorial Approach

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Abstract

This article examines the theoretical implications associated with the study of the phenomenon of early school leaving amongst foreign-born students. Its aim to provide an overview of a theoretical framework able to describe and capture the different factors involved in this complex problem. This paper begins with a description of the phenomenon of early school leaving amongst foreign-born students, while the second part the article outlines the theoretical framework underlying the study of school dropout, according to a systemic and bioecological perspective of development. Here, different dimensions are analyzed, referring in particular to the ecological model as proposed by Bronfenbrenner (1995): time, interactional, personal, social and cultural dimensions are discussed. Drawing on a systemic, multifactorial, analytical approach, this reflection deepens the understanding of how different factors influence the academic pathways of foreign-born students, causing irregularity in the course of their studies and raising the risk of leaving school early.

L'articolo esamina le implicazioni teoriche associate allo studio del fenomeno dell'abbandono scolastico tra gli studenti stranieri. Lo scopo di questo lavoro è presentare un framework teorico di riferimento, che colga e descriva i diversi fattori coinvolti in questo complesso problema. La trattazione inizia con una descrizione del fenomeno dell'abbandono scolastico tra gli studenti stranieri; mentre la seconda parte dell'articolo delinea il quadro teorico alla base dello studio dell'abbandono scolastico, seguendo una prospettiva dello sviluppo e dell'apprendimento sistemica e bioecologica. Vengono presentate diverse dimensioni di analisi, con particolare riferimento al modello ecologico proposto da Bronfenbrenner (1995): vengono discusse le dimensioni del tempo, le dimensioni interazionali, personali, sociali e culturali. Questa riflessione approfondisce la comprensione di come diversi fattori influenzano il percorso scolastico dei ragazzi stranieri, causandone irregolarità nelle traiettorie di apprendimento, e un aumento del rischio di dispersione e abbandono scolastico, facendo riferimento ad un approccio analitico, sistemico e multifattoriale.

Keywords: Early School Leaving; Bioecological Model; Foreign-born Student; Multifactorial Analytical Approach; Protective Factors.

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1. Early school leaving definition

Member countries participating in the Europe 2020 Strategy (2013) have identified as priority, interventions to implement in the educational sector to improve the achievement of specific training objectives within their populations. The European Council (2013) has defined 'early school leaving' as relating to all young people aged 18 to 24, who at most only achieved the first level of secondary school education or a qualification lasting no longer than 2 years, and that are not involved in training. It is possible to obtain indexes on this population from the statistical indicator calculated by Eurostat, on the basis of the data recorded in the Labor Force Survey (LFS). It can be calculated by dividing the number of early dropouts from the education system, by the total population of the same age.

The Council stresses the value of learning achievements and highlights improving the scholastic success of foreign-born students as one of the greatest educational challenges, with the aim of spreading a culture of integration to migrant pupils and addressing issues related to cultural difference in general in schools. Intercultural education is officially indicated by the European Union as a reference approach through the White Paper on Intercultural Dialogue (CEU, 2008), that includes clear political indications for the promotion and dissemination of new strategies to foster greater inclusivity within members' societies.

Moreover, in addition to the European definition, Italy has developed specific measures at the national level to quantify the phenomenon of school dropout. The National Student Registry (established by Legislative Decree 76 on 15 April 2005), collects data relating to each student present in the Italian school system, providing a quantification of early school leaving. It collects information on all the students who attend schools in the national education system. In addition to personal data, information regarding school attendance, the final outcomes for each year of the course, the type of qualification, the choices made by students at the end of the first cycle of education, and their results in the state exam, are also collected. The main purpose of the Registry is to establish a monitoring tool and, consequently, to provide instruments to combat early school leaving.

In the Italian education system, school attendance is mandatory for at least 10 years between the ages of 6 and 16 years. The legislative decree n.76, 15th April 2005, in article 1, has redefined and expanded compulsory education (introduced by article 68 of the law of 17 May 1999, No. 144), as a right and duty to provide education and training. The aim is to allow the attainment of an upper secondary school qualification or at least three years of a professional qualification, by the 18th year. After the age of 16, it is expected that students will complete high school until graduation or take a professional course to achieve a qualification.

The Register highlights that between the school years 2016/2017 and 2017/2018, 0.69% of students attending first grade of secondary school abandon their schooling, with a figure of 3.81% amongst students attending the second grade of secondary school (MIUR, 2019). The phenomenon of early school leaving highlights challenges in the relationship between students and their school and includes, in addition to their failure to attend school and drop out before completing a training cycle, issues of repetition, irregular frequencies and delays with respect to school age. In addition, there are cases of 'covert dispersion', in which a particular behavioral modality is manifested by the students, such as frequent delays and absences with pre-justifications or spending hours in the corridors of the institute (including the paradox of being present in the classroom, without in fact taking advantage of the training process).

As students advance through their education, schools progressively presents obstacles which can act to stimulate educational growth amongst their students; however, when students are unable, due to intrinsic or extrinsic factors, to overcome these obstacles, they might experience failure in their studies. Their discomfort at school and consequent dropout are often considered as symptoms of 'feeling bad at school', amongst students described as unmotivated, possessing low self-esteem and little ability to concentrate. However, the causes of this phenomenon are multiple, and certainly not all attributable to the personal characteristics of students.

In recent years, there has been growth in the number of foreign-born students in Italian schools, and the difficulties they often encounter during the learning processes have increased. This increase is confirmed from data emerging from the Immigration Statistical Dossier (MIUR, 2018): in 2016/2017, the number of immigrant students grew by 1.38%. The majority of foreign children come from Devel-

oping Countries, belonging to families with socio-economics disadvantages; they often find themselves in conditions that accentuate their risk of scholastic failure.

The data published by the Ministry of Education, University and Research, shows that the scholastic outcomes of foreign-born students compared with Italian students, are lower in different school orders (Outcomes of students with non-Italian citizenship, academic year 2016/2017 and 2017/2018; MIUR, 2019). In the first degree secondary school, foreign students who leaved the school were 2.92%, compared to 0.45% of Italians; in the second degree secondary school, school dropout was 10.5% higher in foreign-born students, compared to 3.3% of Italian students; those who are born in other countries are more affected (11.8%), while the second generations are more likely to persevere

The scholastic difficulties experienced by foreign-born students often appear complex and challenging to interpret: linguistic disadvantages, emotional-motivational problems, and different attitudes towards the educational institution, constitute a complex picture, and can sometimes mislead in statistics, which promote the idea that foreign-born students have much higher rates of learning difficulties and cognitive development problems than they actually do. Researchers identify different risk factors that could impede scholastic success: for example, low birth weight, developmental problems, poor educational experience, and low income (Siraj & Mayo, 2014). Moreover, research shows that not all children coming from disadvantaged backgrounds obtained low academic results, with some demonstrating resilience and success beyond forecasts (Siraj & Mayo, 2014).

Scholastic institutions and teachers shoulder the challenge of being agents of integration and must understand how to cope with this new complex reality; they should favor the development of an appropriate education, the inclusion of students in the classroom setting, socialization, enhance school performance, and in general combat the rate of scholastic dropout.

2. Theoretical framework and different dimensions of analysis

Early school leaving amongst foreign-born students is a complex phenomenon, occurring during a range of situations that go from abandonment to the conclusion of the course of studies with a level of preparation less than necessary. In approaching this multifaceted phenomenon, it is important to analyze the true nature of failure in learning settings, examining the complexity of risk and protective factors that can have an impact on foreign-born students' academic pathway. The final aim should be to plan and design specific educational paths that facilitate both learning, teaching and understanding how the activities affect student learning, and if the educational interventions have a positive or negative effect in the long term.

The literature reveals that foreign-born students are at great risk of scholastic failure and abandonment, as their educational background is often characterized by numerous problematic aspects (Suarez-Orozco, Darbes, Dias, & Sutin, 2011; M. Suárez-Orozco & Suárez-Orozco, 2015; Catarci & Fiorucci, 2015; Ventura, 2012). One of critical aspects, concerns their socio-economic background, which is often more disadvantaged than their peers (Santagati, 2014). The socio-cultural and economic characteristics of families play a key role in learning outcomes, and in the choice of school: in fact, students with a higher socio-economic status are more likely to invest for their future in the high school pathway, while foreign-born students, who usually have lower socio-economic status, are more oriented towards vocational schools (Barabanti, 2016). Additionally, foreign-born students are more likely to be at risk of school dropout, due to the difficulties of migratory experience, their lack of knowledge of the Italian scholastic context as well as to the language barriers; moreover due to the difficulties families experience in participating in the educational path of their children, to the dissonance between family and children's expectations and what the context demands (Santero, 2006).

School failure and early school leaving in children with a migrant background is therefore determined by a set of variables and by the way in which the context, the school system and aspects of vulnerability, interact and influence each other.

To respond to this complex issue, we need to identify several theoretical dimensions of analysis, according to a systemic and ecological perspective of development (WHO, 2001; Bronfenbrenner, 1995). According to this theoretical framework, human beings are embedded in a network of biological, psychological and social relationships that influence their health and growth, both separately and through

complex mutual interactions. It is therefore necessary to consider the whole system of factors that surrounds the person in a specific temporal instant, the context of reference, the relational perspective, the quality of the educational systems, and their participation within a society, to understand which part of the learning trajectories are determined by a student's characteristics, and how adults and their wider life context can facilitate children's experiences of learning (Bronfenbrenner, 1995). Starting from this consideration, this article considers the following dimensions of analysis: time dimension, interactional dimension, personal dimension, and social and cultural dimensions.

We focus on these dimensions, considering that school completion is determined by the interaction between the personal characteristics of the student and features and proprieties of the context and system in which students come into contact. From an ecological perspective, different factors impact on school fulfillment, especially familial circumstances and experiences at school, but also the wider social context; these aspects are included in a time dimension, characterized by a specific historical moment, sociocultural and political events that influence the scholastic career of the students

The interaction between individuals and different systems, is the focus of an ecological approach to analysis (Bronfenbrenner, 1995); this perspective considers that foreign-born students have to mediate and adapt between school and family settings (the microsystem and proximal process) and between their cultural background and the value of their traditions, and that of the context in which they are living (macrosystem and distal processes). These contextual factors will affect the development of their school pathway and educational choices.

3. Time dimension

The French philosopher Henri Bergson (1922) defined the concept of time in terms of a subjective dimension: in his conceptualization, the time of life is the real time, which is filtered and reworked by our consciousness. For Bergson, the time of science and the lived time are oppositional concepts: while science gives an interpretation of abstract time, created to confer order and stability, in real life concrete time is defined by 'duration'. In abstract time, there is a distinction between present, past, future, and progression is regular and continuous. Duration, instead, is something simultaneously deeply unified and mobile: it preserves the inputs of the external world and binds them to the past, present and future. Time is therefore a subjective dimension, a set of moments in continuous evolution, a flow of states of consciousness that constitute a dynamic and perpetual flow.

Beyond having a subjective dimension, time also has an interactive dimension: it takes place within a process of exchange in a social context. According to the social theory of Frederick Erickson (2004), the concept of time is considered one aspect of interaction which entails a dialectical process. During social interaction, mutual activities are created between partners, shared in a predictable timing. Erickson asserts that cognition and actions are 'situated and tactical', meaning that they are situated and done tactically within a real time process of development, in continuously developing sequences of interaction. Events, relations of political economy and a national history, connected across wide ranges of space and time, shape the situated experiences of interaction, the environment of that setting, and moreover the interactional experience and expectation of all the person involved in the setting. Social worlds are built across life spans and through multiple influences, and constitute a prior structure that provides an external environment within which an interaction takes place (Erickson, 2004).

In his theory of human development, Bronfenbrenner also takes up the notion of duration and time. He defined time as one of the four proprieties of the Bioecological model of development: process, person, context and time establish the bases for child development (Bronfenbrenner & Morris, 2006). Here, Bronfenbrenner and Morris (2006) describe three levels of temporal properties: micro, meso and macro. Microtime is defined as activities that occur uniformly in the environment; when these activities occur regularly across greater time intervals, it becomes Mesotime. Macrotime represents change in societal events and expectations; the development of a child is shaped by historical time: society is continuously changing, modifying and evolving over time. These changes shape social trajectories and consequently influence the individual's learning processes, their pattern of growth and outcomes of their development (Elder, 1998).

Micro and meso time are related to the impact of proximal processes in education: students could develop new skills and knowledge if they have the opportunities to participate in learning activities that are increasingly complex, extended over time and regular. For example, micro and meso time are involved in the progressive acquisition of a Second Language (L2) in foreign-born students, who begin their schooling with little or no knowledge of the language spoken at school. Low linguistic knowledge clearly disadvantages the students in the scholastic disciplines which require language skills (for example in the literary or historical subjects). Roessingh and Field (2000) demonstrated how the scholastic success of foreign-born students, who begin school with poor language skills in L2, is closely linked to the way in which the time devoted to language acquisition is structured within the school setting. The theme of 'time' includes several factors, such as the timing in identifying the minimum linguistic thresholds required during specific stages of the school pathway, the way in which the workload is divided and presented during the year, the structuring of the calendar and the objectives, that should evolve as students' needs change. The authors underline how time and educational choices must be modulated and calibrated in a flexible way, responding to the needs the student encounters during a particular moment of their training.

Moreover, according to Bronfenbrenner, the time in which a learning process takes place is a fundamental variable: the learning activity can be perceived by a learner as meaningful only in the immediate situation, or if s/he can see its meaning connected to a past event or projected into the future. The author defines these activities as 'molar': behaviors which are ongoing in a precise moment, perceived as having meaning by those who participate in the environmental situation (Bronfenbrenner, 1986). The molar activity is therefore an action perceived by all 'actors' as endowed with meaning and finality, oriented towards the achievement of an objective. To achieve these objectives, the direct participation of the developing subject in decision-making, planning and management, must be guaranteed. The evolutionary potential of a molar activity is further enhanced if it is developed in interpersonal relationships and in interactions with other people.

Proximal processes are included in the macro time, a specific historical moment which creates variation in the lived experiences of the student. Macrotime can influence the scholastic pathway of foreign-born students with distal processes in different ways: the historical moment in which immigrant families settle in a country is characterized by political and financial choices that may or may not favor the inclusion of their children in a school; the common perception towards immigrants and immigration policies changes the way in which children can feel included and welcomed in a new school setting. The analysis of the historical period can highlight how the interactions between people, context and the interactive processes between these factors vary over time (Stebleton, 2011).

The historical period in which we live has seen the provision of access to education for all children, and guaranteed access to instruction across the life span of students, beginning their educational trajectory around 3 years old and continuing until 18. However, students coming from different countries could have experienced particular historical events in their life (for example, refugee children who have experienced war) occurring at certain points of child development, which strongly impact on their development and the continuity of their learning path.

4. The interactional dimension

Children express their potential through their interactions with their environment, as long as they are engaged in relevant experience and settings appropriate to stimulate their growth (Bronfenbrenner & Ceci, 1994). They are progressively engaged in more complex interaction processes, which stimulate their developmental accomplishments. Interaction with other people, like their parents, teachers, peers, and with cultural objects, like books, digital instruments and toys, actively stimulate children, and help them to go beyond their zone of proximal development (Vygotsky *et al.*, 1993). The proximal process in this sense, helps induce children to surpass the skills and knowledge they have already accumulated and expand their competences. As such, it should be both developmental and culturally appropriate to help children develop skills and competences appropriate to the demands of their social environment (Rogoff, 1998). The proximal processes and the microsystem can contribute or interfere with the learning trajectory of students and produce expected or unexpected academic success. School environment

plays an essential role in students learning over their life course, and it is clear that teachers should activate dispositions, attitudes, knowledge, and skills necessary to work effectively with a diverse student population (Grant & Sleeter, 2007; Irvine, 2003).

From a Bioecological perspective, success or failure in school is never determined by a single factor, such as only by the child, their family, school or social context (Bronfenbrenner, 1995). Rather, it is the interactions between these factors that determine a specific outcome in the students' learning pathways. Following a Bioecological framework of analysis, Siraj and Mayo (2014) identify different factors that affect scholastic success, analyzing family, child and school characteristics, such as: parental level of education; family SES (socio-economic status); the learning environment at home; familial perceptions about school performance; the importance given to educational resources; students motivation; the learning styles of teachers; and the school's effectiveness.

The results of the research highlight the impact of people and their experiences (at home, at school and in the community), on the learning pathway of the children under study. Researchers found that children from disadvantaged backgrounds can nevertheless achieve academic success against the odds, thanks to both their personal characteristics (like determination and active participation) and the contributions of people around them (Siraj and Mayo, 2014). By having the support and encouragement of adults (family and teachers), children can develop a sense of self-efficacy toward academic and social success. Through the interaction between the child and supportive adults, they can learn to build positive relationships that become a protective factor in achieving academic success (Siraj and Mayo, 2014). These results show that proximal processes are crucial in helping children face day-to-day learning experiences (Bronfenbrenner & Ceci, 1994).

Parents and family play a crucial role in the learning development of foreign-born children (Suárez-Orozco Gaytán, Bang, Pakes, O'Connor & Rhodes, 2010), and support their education in diverse ways. For example, the involvement of parents in the learning path of their children is a factor strongly correlated with the academic performance of foreign-born students: low level of involvement is linked with poor schooling outcomes and, by contrast, higher involvement correlates with good achievement (Henderson & Mapp, 2002).

Parents can promote the learning success of their children and have a protective influence that mitigates against the risk of dropout, by adopting different socialization strategies in the family. Parents who considered that learning is an 'active acculturation', have a positive influence on the academic success of their children, by providing emotional, practical and relational support; these children are encouraged to develop positive cognitive and socio-behavioral characteristics that help them to become active agents in their lifelong learning. Otherwise, parents who believe learning is solely determined by 'natural growth' potential, don't stimulate positive learning outcomes (Siraj & Mayo, 2014).

Moreover, family structure represents a protective factor which can reduce the likelihood of school dropout: when the family is intact with both parents present and there is a good stability in the household, foreign-born students achieve better academic results. Also, a low level of conflict between child and parents with high agreement in the way in which parents and their children adapt their self to the cultural and social context, is correlated with best school outcomes (Suárez-Orozco, Motti-Stefanidi, Marks & Katsiaticas, 2018). Intergenerational conflicts around cultural values often exist between immigrant parents and their child: family cultural value could be very far from school value system; these discordances have negative consequences for student's education outcomes (Marks, Ejesi & García Coll, 2014).

Schools can act to support foreign-born students and develop better conditions in the school environment, that favours their adaptation and development. It should promote integration and the development of group cohesion among students from diverse countries of origin, promoting a sense of safety between students and trust towards teachers (Juvonen, Kogachi & Graham, 2017). Schools can support foreign-born students to be included in the school setting, developing their language skills, helping them to deepen their knowledge of the local context (Motti-Stefanidi & Masten, 2017; Suárez-Orozco *et al.*, 2010). Moreover, helping students to develop a supportive relationship with teachers and peers, is crucial to strengthen a sense of wellbeing at school and promote learning, motivation and a sense of belongingness (Stanton-Salazar, 2011).

Regarding the role of peers, building good relationships with others young people, is considered

a protective factor for foreign-born students (Motti-Stefanidi, Berry, Chryssochoou, Sam & Phinney, 2012). Otherwise, foreign-born students are often disadvantaged in establishing relationships with peers: they are likely to have had more discontinuous socialization paths, difficulties in communicating and understanding the language, combined with the challenge of finding points of commonality with peers. Creating good relationships with other students is fundamental, especially during adolescence, to ensure positive integration within the school context, and consequently reduce the risk of abandonment (Colombo and Santagati 2014). It is important for immigrant students to feel accepted and included in the peer network, overcoming the stigma towards their origin, and learning how to develop both intra- and interethnic relationships with students (e.g., Titzmann, 2014).

Additionally, school can play a protective role in counteracting school failure and drop out, even if teachers often feel unsure of how exactly they should go about teaching students from different cultural backgrounds, and which evaluation criteria should be employed (Hollins & Guzman, 2005).

Pollock *et al.* (2010) highlight that teachers usually pose the question ‘What can I do?’, regarding their preparation in intercultural professional development, with three different inflections: they consider concrete actions they can take in their classrooms; they bring into question the power of individual teacher to combat a social problem; and they deliberate on their personal ability to develop professional competence to successfully engage in a multicultural classroom environment. According to Pollock *et al.* (2010), professional development might best prepare teachers in all three dimensions, encouraging them to deal with these issues throughout their school routine, as well as to better equip teachers to keep working with their students from diverse backgrounds. Research shows that it is often difficult for teachers to develop an adequate didactic approach in multicultural classes. Very often, although they are positively active during the welcome phase when attempting to establish a good relationship with students, they then encounter difficulties in the teaching pathway, when using functional teaching methods to better support foreign-born students (Colombo & Santagati 2014).

For example, teachers encounter difficulties in applying evaluation criteria towards foreign-born students (i.e. Murineddu, Duca, & Cornoldi, 2006), and usually they use it regardless of these students’ starting conditions. Schools should primarily evaluate the ‘educational gap’, differential cognitive and motivational dispositions towards new learning, between starting point situations and the exit situation from a variety of studies. It is a measure that expresses the impact of the learning processes and of a particular school experience, on the individual and collective characteristics of the students, and represents the effectiveness of the intentional action carried out by the educational structure.

Several factors related to teaching ability and to quality of relationship between teacher and students play a crucial role in helping students in their learning process: as transmitting enthusiasm, sharing objectives, managing student’s behavior, stimulating collaborative learning, personalizing learning, and using dialogical teaching techniques (Siraj and Mayo, 2014). The educational relationship is a resource that exerts a positive influence on students’ learning achievements, stimulating involvement and participation, with positive consequences for education outcomes (Pianta, 2001; Pianta, Hamre, & Stuhlman 2003). The relationships between student and teacher is determinate by several factors, that include the personal characteristics of individuals (i.e. age, gender, experience, country of origin, attitude), the role assumed within the relationship and the way in which it is viewed, and the role of the external system in which the relation plays out (Pianta, 1999). The interaction between students and teachers is considered a key factor that can enhance learning achievements and positive child growth (Pianta, 2019).

5. Personal dimension

According to Bronfenbrenner and Morris (2006), three types of personal characteristics are usually brought into social interactions: demand, resource and force (Bronfenbrenner & Morris, 2006). Demand describes personal stimulus (such as gender, age, physical appearance, etc.). They influence the initial interaction between child and social context and determine initial expectations. Recourse refers to characteristics induced from personal stimulus, and are related to cognitive, emotional and social resources considered appropriate in a society. Force relates to behavioral characteristics, such as temperament, persistence and motivation, which influence proximal interactions.

Interactions between a child and their context is a reciprocal process: the context influences child development and in turn children affect their environments through their characteristics and interaction modality. A child's personal characteristics may have a positive or a negative impact on their development pathway and learning. Positive and generative dispositions favor a positive interaction with their context and stimulates positive response from it, sustaining proximal processes. For example, curiosity, responsiveness and pursuing long-term goals constitute personal characteristics which create a positive and active behavioral orientation, and actively shape the nature of the proximal process. By contrast, negative or disruptive dispositions (like difficulty in maintaining control, inability to defer gratification) block or interrupt responses from the context, interfering with the occurrence of proximal processes (Bronfenbrenner & Morris, 2006).

Folgheraiter and Tressoldi (2003) identify some personal aspects that could have an effect on foreign-born student's success in their learning processes. In their study, the authors evaluated which variables could have an influence on the scholastic difficulties of foreign-born students, considering individual characteristics associated with the linguistic dimension (like language spoken in the family, the extent of their vocabulary), with the chronological age and non-verbal intelligence level, and other context related dimensions (such as, number of years attending school in Italy and years spent in Italy). The authors evaluated which of these dimensions could help predict the scholastic outcomes of foreign-born boys. In respect to the individual dimension, non-verbal intelligence, language spoken in family, and breadth of vocabulary, all emerged as predictive variables. However, linguistic competences were not the only variables that had an effect on learning; in fact, the authors indicated that variables such as student motivation, knowledge of more than one language, and their level of schooling in the country of origin, also played a significant role in their school achievements.

6. Social and cultural context

The social and cultural context is defined by Bronfenbrenner and Ceci (1994) as the social environment in which the student's developmental processes are embedded. The resources present in the social context and their degree of stability, influence the proximal processes. According to Bronfenbrenner (1997), the social context consists of four interrelated systems: micro system, meso system, exo system, and macro system.

The microsystem is the context in which a child spends a lot of time directly involved in social interactions with other people. For foreign-born students, example of microsystem factors could involve school support, the relationship with peers, family expectation, care and assistance, and involvement in social activities. The mesosystem is represented by the interrelation among two or more microsystems: for immigrant's students it could include interaction between family and school, or between family and peers, or between family and other social contexts. The exosystem is an environmental setting in which a child is not directly involved, but nevertheless influences childhood development indirectly. Possible factors at this level include immigration policies or laws, stressful elements related to immigration status, support policy (i.e., financial support), media influences and the way in which immigrants are view in society. Finally, the macrosystem is represented by the general society, cultural value, and social system in which the child grows up (Bronfenbrenner, 1997). Considering the macrosystem, cultural values and beliefs are shared in a community, and are expressed through practices and common tools. Value, beliefs and practices evolve over time, and are renegotiated. The macrosystem is a cultural group with shared values and beliefs, which might consist of global characteristics of national culture, and at the same time, consist of many subcultures defined by socio economic family characteristics, family traditions and religious affiliations (Bronfenbrenner & Morris, 2006). Examples of variables of influence for foreign-born students include social and historical events in the home country; their belief systems (like religion, philosophy of education, ideologies); social roles and expectations; and lifestyle choice. If society embraces multicultural values, considering cultural diversity as a positive resource, this could facilitate foreign-born students inclusion in the social context, favoring the development of a sense of belonging and wellbeing with positive consequences for their learning outcome (van de Vijver, 2017).

Adults prepare children for a social context in which they hope they will survive and thrive (Bornstein, 1991); they shape the child's activities, as well as the expression of the early development of their

mental and social competencies, through social interaction. Adult behaviors are characterized by differentiated and culturally sensitive activities, and by patterns of individualized behavior. From this perspective, the concept of 'developmental niche', is a useful theoretical framework with which to analyze childhood development in light of cultural influences (Super & Harkness, 2002). The growth of the child is influenced by the physical and social settings in which they live, by parents' child rearing practices, and by the characteristics of the caregivers. From the interactions between these components, children derive information and experiences, familiarity with the rules of the culture and build their own social, affective, and cognitive structures.

Population vary in the expression of educational practices, that are often incomprehensible without detailed knowledge of the socially and culturally organized contexts from which they arise (Bornstein, 1991). The cross-cultural perspective highlights cultural variation in the concept of childrearing practices and in what is considered typical childhood development in different countries (Bornstein, 1991). To understand the way through which educational practices are expressed, we need to account for cultural variations to avoid false generalizations.

The evidence of cross-cultural research highlights that the expression of genetic heritage is strongly influenced by experience, as well as social context. There is an interrelated effect between parenting, non-familial influences, and the broader context in which families live (Bronfenbrenner, 1986, 1995; Bronfenbrenner & Ceci, 1994). The evidence show similarities and differences among childrearing practices in diverse cultural backgrounds, and different child development pathways, considered as adaptive processes to a specific context.

According to Erickson (2011), culture is considered as clusters of different trajectories, all combining in a continuous process of change. The locus of culture is the local community of practice in everyday life, where it is experienced and learned. All individuals are involved in multiple local communities of practice, engaged constantly in different cultural activities: therefore, they are multicultural. Individuals don't participate in a unitary cultural entity, nor follow in a passive way a single system of cultural rules; by contrast they develop complex repertoires of practice in dynamic evolution.

It is appropriate for a robust evaluation of the difficulties faced by foreign-born students, to comprehend the characteristics of the educational system in their country of origin. We should consider that their exposure to different educational systems, can influence their learning pathways. Some obstacles to learning may be due to the transition from one particular educational system to another, that promotes a different way of learning and conception of schooling. Foreign-born students face the challenge of adapting to their new social context, adopting different cultural patterns, and at the same time continuing to maintain those of shared by their family of origin; school context may demand developmental tasks that could be very different from those in their family culture (Motti-Stefanidi & Masten, 2017; Suárez-Orozco *et al.*, 2010). School can facilitate students' adaptation to the new cultural context, helping them develop language and cultural competences, promoting cohesion with their classmates, and providing a culturally relevant pedagogy to bridge the cultural gap (Goodwin, 2002).

7. Conclusion

Early school leaving amongst foreign-born students is a complex phenomenon which requires corresponding sophistication in its' analysis and interpretation. Foreign-born students encounter several difficulties in their learning pathways, that increase the likelihood that they fail or abandon their schooling. Theoretical approaches and the methodologies used to study this phenomenon, should be able to grasp in an articulated way all the factors that affect it—and reach a shared evaluation of the problem. The main obstacle such studies face consists both in the difficulty of developing a multidisciplinary interpretative vision, as well as the difficulty of combining the theoretical model with the complexity of the world of schooling. Situations of disadvantage are widespread among foreign-born students and this aspect can contribute to the emergence of challenges; it is important to understand the reasons for the difficulties students encounter, in order to face them in a productive way. Children's success or lack of during their academic careers, is determined by a range of characteristics, identified in the literature on the societal, communal, familial, and individual levels (Suarez-Orozco, *et al.*, 2011; M. Suárez-Orozco & Suárez-Orozco, 2015; Catarci & Fiorucci, 2015; Ventura, 2012).

The phenomenon of early school leaving in foreign-born students requires a systemic, multifactorial methodological approach to analysis. It is necessary to identify the subjective and macro-social variables influencing school dropout, considering multiple dimensions of analysis. Thus, from an ecological perspective, success or failure is determined by a combination and interaction of multiple factors, such as: the personal characteristic of the child; the quality of social system surrounding them (such as family, school, peers, and wider social context); the type of interaction that take place between individuals and systems; and the time dimension in which learning occurs (Bronfenbrenner, 1995). Approaches such as Bronfenbrenner's ecological human development model (1995), provide a theoretical framework to study how these characteristics shape the academic outcomes of children. Their academic success is determined in a complex way by proximal process that interact between children and their micro context, and between children and characteristics of their wider context.

To understand why some students drop out of school and why other don't, it is important to analyze their experiences, how these are shaped by their daily life context, and identify factors that could support their academic success. Early school leaving in foreign-born students could be considered an outcome of reciprocal proximal processes between the child, people, events and society, influenced by the processes of the wider developmental context. Family can support foreign-born students to achieve success at school by providing encouragement, emotional and practical support, involving themselves in the school pathway, providing stability and avoiding conflict with their children (Suárez-Orozco *et al.*, 2010; Siraj & Mayo, 2014). Schools can support students by helping them to develop knowledge about their new social context and language, by promoting positive relationships between students and teachers and between peers, and by providing training to enhance teaching abilities (i.e., Pianta, 2019). We also highlight that time and the interactional dimension, influence the learning outcomes of students. They can develop new skills and knowledge if they are involved in significant and positive interaction with school context and people they meet there; as well as if they can participate in regular learning activities over an extended amount of time, and if societal events support access to high quality instruction across the time students are in schooling (Bronfenbrenner & Morris, 2006).

It is necessary to identify protective factors, characteristics that facilitate resilience and risk factors and, simultaneously, help teachers to develop specific professional competences to support students to overcome the difficulties they face. Developmental and educational success are considered an outcome of processes that intervene between the child and their context, including their wider developmental context. There remains urgent need to better understand how learning contexts differ and why they differ, and clarify how specific experiences are shaped by personal developmental systems—in addition to how the roles of family and schools can influence them.

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