Evolution in the constructs of integration and inclusion in Italy among migrant mothers and children: a study based on digital tools

Evoluzione dei costrutti di integrazione ed inclusione in Italia nelle mamme e bambini migranti: uno studio basato sull’uso di strumenti digitali

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ABSTRACT This eleven-year research study analysed changing perceptions of integration and inclusion among migrant mothers and their children in Italy. Changes were measured between two different times/years: (T1-2006) and (T2-2017). During the research activities, we used several digital tools: an interactive whiteboard (IWB); the OperaVOX app, which allows measurement of vocal prosody directly from the other category of tools employed, namely i-devices, and tablets. The results show positive evolution between 2006 and 2017. Data from 2017 demonstrate development of a cultural identity that alternates between the values, ideals and language of the heritage culture and those of the adopted country.

KEYWORDS Social Integration; Social Inclusion; Digital Tools.


PAROLE CHIAVE Integrazione; Inclusione; Strumenti Digitali.
1. INTRODUCTION
The history of the world is characterized by the constant mobility of individuals, groups, sometimes entire peoples, in search of better living conditions. Currently, this constantly evolving migration phenomenon is to be seen in almost every country in the world. It is being driven by a combination of factors pushing individuals to leave their home country and simultaneously attracting them to new territories. (Clegg, 2008; Rousseau & Heusch, 2011; Zust & Moline, 2003).

Migration is becoming a steady, on-going socially relevant phenomenon affecting a variety of countries around the world. Migration flows are intense and constantly evolving; regardless of the reasons behind them (global climate change, conflict, religious persecution, and so on) the most common motivation for migrants is the desire to improve their living conditions (Berry, 1992; Clegg, 2008; Fultantelli & Pipitone, 2017; Hernández, Lakhani, & Zúñiga, 2017; Roccella, 2008; Zanfrini, 2007). The dynamics of the immigration experience are influenced by the motivations and life plans that have determined and/or imposed this dramatic change on those involved: families, parents and children (Kim, Schwartz, Perreira, & Juang, 2018; Zust & Moline, 2003). Indeed, these migratory processes present various difficulties for all those forced to migrate to seek a better life. Migrants often find themselves as an ethnic minority in the new country. The disadvantages that ethnic minorities often experience within their new social milieu require that members of these groups adopt strategies that allow them to integrate and build a future in their new homeland while still maintaining their cultural identity (Akiba, Szalacha, & García Coll, 2004; Compton-Lilly, Papoi, & Venegas, 2017; Murray, 2017; Zust & Moline, 2003).

Moreover, there is a big difference between adults who have chosen to migrate and their children. Migrant families often face great difficulties because it is hard to strike a balance between maintaining their geo-cultural heritage and activating and supporting inclusion and integration processes in the country in which they live. This situation of “living between two worlds” is very complicated, especially when it comes to educating children; indeed, children are the ones who often have the most difficulty adapting. Various studies have shown that second-generation immigrants have more problems in defining their ethnic-cultural identity, because they also live suspended between two worlds: the cultural identity their parents transmit to them, and that transmitted by the adopted country in which they were born that provides them with growth opportunities (Berry, 1992; Cremaschi & Alberini, 2009; Kim et al., 2018; Moskal, 2017; Stan, 2020; Zanfrini, 2007).

Immigrant families living in a new country are an important social resource that must be carefully supported by all social actors (Berry, 1992; Clegg, 2008). Their integration and inclusion need to be scaffolded with interventions aimed at supporting their lives through specific social policies.

In the present study we describe an experience carried out at an aggregative centre in Italy, where activities are proposed to people with socio-cultural disadvantages with the aim to support their integration and inclusion. Thanks to the data collected during the experience, it was possible to investigate how the cultural identity of both migrant mothers and children evolved through time.

2. THE STORY OF MIGRATION THROUGH LIFE STORIES
Many researchers have used personal narratives as data in an approach focused on the evolution of personal coping strategies, attributing cultural significance to the analysis of personal concepts of adaptation, integration and future expectations (Bertaux & Bichi, 2008; Dicks, Soyinka, & Coffey, 2006; González-Monteagudo, 2018; Kim et al., 2018). Life stories are a way of expressing experience, and since reality manifests itself as experience in all of us, these stories are fundamental for human understanding. Personal stories are told as a way to share experiences and can thereby solve common problems. Moreover, life stories not only
carry the sequences of events that happened in someone’s life, but also reveal the teller’s feelings when a specific event occurred.

For these reasons, the adoption of a personal narrative research technique can play a fundamental role in discovering and understanding the life of immigrants. It is an investigative method that aims to recover and collect data relating to the paths and processes underlying migration (Bertaux & Bichi, 2008; González-Monteagudo, 2018; Zust & Moline, 2003). Thus, we chose this method for our study and asked mothers to share their migratory experience through their own and their families’ stories, as it will be further explained in the following. In this way, it was possible to highlight how they initiated and put into practice their life decisions, at the same time as supporting their families. During our research, we focused on the social and procedural nature of immigrants’ personal narratives. Various genres of personal narratives told during meetings were identified and analyzed, taking individual, social and cultural levels into account (González-Monteagudo, 2018).

Life stories offered a window allowing us to appreciate the internal changes migrants attribute to their personal migration experiences (Fantauzzo & Roccella, 2008; Stan, 2020). Build the “life story” and the individual identity of migrants allowed the gathering of information necessary for achieving the desired research objectives (Bertaux & Bichi, 2008; Dicks et al., 2006; González-Monteagudo, 2018; Kim et al., 2018).

3. TRACING THE IDENTITY OF MIGRANT CHILDREN

The migration process often brings migrant children into a state of psychological vulnerability (Berry, 1992; Hernández et al., 2017; Zanfrini, 2007). Their egos face a split reality, with realities related respectively to their country of origin and the adopted country. This can generate complex internal and external conflicts in migrant children. It is worth observing that migrant children have not chosen to migrate and cannot choose to return to their country of origin.

In this context, the two main educational contexts, family and school, can help the migrant child to manage conflicts between two different cultures: they can help develop an attitude of openness to the new culture and enhance behavioral traits that assist in dealing with cultural and linguistic differences (Cowden & Kreisler, 2016; Zust & Moline, 2003; Zhang, Dennis, & Houseman, 2018).

The school is the first dimension of social inclusion, and if the underlying processes are not managed properly, the school can create dramatic conditions of exclusion. Consequently, it is extremely important to take actions to counter discrimination and ethnic prejudice, and promote the inclusion and integration of children; this requires effective interventions and educational strategies based on an intercultural approach (Berry, 1992; Clegg, 2008; Cremaschi & Alberini, 2009).

Moreover, in the presence of a multicultural society, it is important to study the question of language and the concept of bilingualism, which is strongly interrelated with the concept of cultural identity: the development of bilingualism influences the cultural identity of children (Stan, 2020).

Kindergarten and primary school are often the first places where migrant families and children meet local families and note differences from themselves. The school has become a key field of intercultural exchange and context for building common projects starting from ethnic diversity (Clegg, 2008; Favaro, 2012; MIUR, 2014).

The school environment should seek to reduce the problems the migrant child faces related to ethnic diversity because these can pose the risk of school dropout.

Academically, migrant children often do not perform as well as locally-born children, not because of cognitive difficulties but due to other factors, sometimes including unsuitable teaching methods. Therefore, it
is necessary to develop innovative solutions to improve the learning conditions of migrant children in the school context (Maltese, Pepi, & Scifo, 2012; Pieloch, Marks, & Garcia Coll, 2016). An essential prerequisite for effective educational strategies is knowledge of each child’s competences and skills (Grinberg & Grinberg, 1990; Mladovsky, 2009; Pieloch et al., 2016).

Apart from linguistic and/or academic performance, integration into the school is multidimensional, involving aspects of relationships and interaction with adults and peers inside and outside the school context (Favaro, 2004).

To support bilingualism, it is necessary for the teacher to know migrant children’s competence levels in L1 (mother tongue) and L2 (the prevalent/official language of the adopted country) in order to design specific learning paths targeted to each child and to help enhance his/her written and oral linguistic skills (Berry, 1992; Zanfrini, 2007; Fulantelli et al., 2018).

Moreover, a major concept in psychological studies on migrant children is the development of ethnic identity. Migrant children have a “risk identity” that can break (Branch, 2020; Zust & Moline, 2003).

Taking all these considerations into account, the approach adopted for working with the children in this study was drawing on graphic tablets. Such choice is also grounded on previous scientific studies, supporting the theory that drawing is an excellent way for children to express their perception of themselves and the context around them (Campbell & Bond, 2017; Cronin, Gross, & Hayne, 2017; Favaro, 2013a; Oliveira & Wechsler, 2016).

4. THE ROLE OF MIGRANT FAMILIES IN BUILDING THE INCLUSION AND INTEGRATION PROCESS

As already mentioned, an important difference is revealed between first and second generation migrants (Jaramillo, Rendon, Munoz, Weis, & Trommsdorff, 2017; Zanfrini, 2007). The second generation is represented by immigrant children who were either born in a country different from their parental country of origin or emigrated there when they were very young. The difficulties facing the second generation are much more complex and harder to address than those facing the first generation (Berry, 1992; Hernández et al., 2017; Zanfrini, 2007). In most cases, first generation youth and/or adults, made a decision to change country, and are aware that by emigrating they will live in a new way, in terms of dress, eating, working, habits and lifestyle, maintaining the identity of origin more or less intact (concepts of life, death, family, religion, etc...). Instead, very often second generation immigrants must cope with duality within themselves, reconciling potential tensions between family life and the new world in which they live.

Migrant families generally seek to remain faithful to their origins and continuing family history; the new world within which second-generation migrant children live commonly presents them with a new culture and a new language (Berry, 1992; Kim et al., 2018; Lavis, 2010).

The specific objective of this research study is to show that it is possible for immigrants to find a meeting ground, an integration between different cultures and realities, without detriment to or abandonment of the culture of the country of origin (Branch, 2020; Bertaux & Bichi, 2008; Cowden & Kreisler, 2016; Dicks et al., 2006).

5. CONTEXT OF THE STUDY

This research was carried out over eleven years, from 2006 to 2017. During that time, we observed mother and child immigrants attending an aggregative centre in Palermo, Italy for people with socio-cultural disadvantages.
In particular, for the purpose of this study, we observed mothers and children participating to two digitally-supported activities: children drawing on graphics tablets, while mothers digitally recording their life stories. We collected data over time and then we compared the differences between the two dates: (T1-2006) and (T2-2017). The eleven-year period (T1-2006 to T2-2017) was an interval of time in which various social and cultural changes occurred that affected the lives of immigrants in Italy.

5.1. Participants
To ensure ethical compliance, we followed UNICEF (2005) guidelines on research with children, and written consent for their participation was obtained both from them and their mothers (UNICEF, 2005; UNICEF, 2008). In eleven years we observed 105 mothers and 155 children. The mothers ranged from 24 to 42 years of age and the children from 6 to 11 years. The children were observed both individually and in groups. Non-probabilistic sampling was used, specifically, a “typological sample” representing the population (Dicks et al., 2006; Potter & Hepburn, 2005; Trobia, 2005).

The participants in the research were heterogeneous, belonging to different nationalities: in Figure 1 you can see nationalities of the 2006 group (T1) and in Figure 2 those of the 2017 group (T2).

![](participants_nationality_2006.png)

**Figure 1.** Nationality of participants (T1-2006 group).
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1) the children were asked to use a graphic tablet to draw a drawing of a child with some friends and family (Harris, 1963; Golomb, 2003).

2) the mothers received a semi-structured interview and their answers were recorded as a means for constructing their life stories in digital form (Favaro, 2013b; Fulantelli et al., 2018; González-Monteagudo, 2018; Oliveira & Wechsler, 2016).

**5.2. Methods and procedures**

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**5.2.1. The drawing of the human figure on the graphic tablet**

The drawing of the human figure is a projective test in which the child is unconsciously him/herself. It is the stage for a psychodynamic evaluation of the representation of the human figure, which then becomes a projective test of personality. Analysis of the drawings must always take into account gender, age, level of development and cultural background. For this reason, we chose this test to ascertain the individual self-perception of the children in the new world in which they had been inserted in order to evaluate inclusion and integration. The drawing helps to understand the child’s level of integration and adaptation, the role that child plays in the family, in the classroom and in the educational contexts they attend. The characteristics of the drawing differ according to the context (Cronin et al., 2017; Favaro, 2013c; Zust & Moline, 2003).

In this study, three dimensions / focus areas expressed in the drawings were analyzed: self-perception, family perception, friendship perception. Each of these focus areas was assessed on a 4-point scale, reflecting the depth and clarity with which the children depicted the particular parameter: a “0” score was assigned.
when none of the focus area was apparent in the drawing; a “1” refers to one or more focus area apparent, but not well articulated in the drawing; a “2” means that at least one of the focus areas is clearly depicted in the drawing; and a “3” indicates that there are two or more clearly depicted focus areas.

Drawings were stored so that it was possible to analyse them in different sessions, thus providing accurate results.

5.2.2. Recording the mothers’ life stories

Through their answers to a semi-structured interview the mothers answered the questions necessary for the construction of their life story. This interview allowed us to get to know the family and life of immigrants better, especially as the mothers were asked to reflect on their own lives. The structure of the interview divided their lives into three parts: childhood/adolescence, adulthood and motherhood. The recording was made through OperaVOX, a specific app that measures the prosody of the voice (Hughes & Alexander, n.d.). The app offers an advanced voice analysis tool that uses an algorithm currently considered to be cutting-edge for measuring voice quality directly from an i-device, without the use of specialized equipment. It was developed by doctors, medical researchers, engineers, and specialists in language pathologies and qualitative analysis of the voice.

The OperaVOX app accurately measures how the user’s voice changes from one session to the next, be they separated by a day, month or year. It can also be used to detect “minor” changes in voice quality, i.e. when it is ‘at its best’ or ‘worst’. The operator can then use OperaVOX’s personalized diary and graphics functions to gain understanding of what might be affecting the quality of the subject’s voice (Hughes & Alexander, n.d.). In this experience, it was particularly important to use this tool, because it allowed to grasp the prosody, the changes in the intonation of the mothers’ voices during recording of their life stories. It is also easy to share the results of recordings and analyses (Hughes & Alexander, n.d.).

Then, the narrative prosody was evaluated by the educators who delivered the interviews, to capture its “emotional quality”. To do so, the educators analysed each participant’s life chapters and assigned a “narrative tone score” (between 1 and 5) to each of the three dimensions (childhood/adolescence, adulthood and motherhood). The score was based on changes in voice quality and ranged from 1 (low quality of narrative tone) to 5 (high quality of narrative tone). Finally, the overall narrative tone score (between 3 and 15) was calculated, by summing the scores of each of the three dimensions of the interview.

In addition, each mother’s life story was related to her child’s or children’s drawings to gain a more complete picture of the process of inclusion and integration. Finally, the results were compared between two different times (T1-2006) and (T2-2017).

5.3. The role of digital technologies in the study

As already mentioned, this research is part of a project to promote integration and inclusion for mothers and their children. Thus, it was decided that the technologies used during this specific activity should also support integration and inclusion. In particular, various digital devices were used: an interactive whiteboard (IWB), the OperaVOX and graphic tablets.

Each device was adopted in a specific phase of the project with a double purpose: to collect data on the evolution of the concept of integration and inclusion of mothers and migrant children, but also to promote inclusion and integration.

In particular, the IWB was essential for explaining the research project to both mothers and children. The IWB was located in the main hall of the educational centre where the meetings with migrant mothers and children were held. In our experience, in addition to its educational value, the IWB had a strong aggregating value and was formative for the participants, who used the IWB to jointly share their outputs.
Mobile phones played a dual function in the study: they were used for recruiting participants in the different phases and for the recording of life stories through the OperaVOX app. Compared to a classic tape recorder, using the mobile phone app made it much easier to grasp the difference in tone or prosody within the story/interview for the construction of life stories.

Training that the children received through the IWB made it possible for them to perform the “drawing of the human figure on the graphics tablet” test. This training was fundamental because many children had never seen a graphics tablet before and all had practical problems in using the digital pen to draw on the tablets. Using the IWB to show educational demonstrations/videos of graphics tablet use proved particularly valuable for this training. By recording the participants’ (drawn) responses in file format allowed more careful analysis of the results.

Overall, in our study these technologies were not only a means of analysis, but also a way to support immigrants’ inclusion and integration strategies (Fulantelli & Pipitone, 2017; Kim et al., 2018; Lavis, 2010).

6. RESULTS

6.1. Results of quantitative analyses

For the analysis of the drawing of the human figure on the graphic tablets, the children were grouped on the basis of the days of presence for year at the aggregative center: in particular group 1 (children present: between 28-48 days for year), group 2 (children present: at least 76-96 days for year) and group 3 (children present: at least 88-108 times for year). A MANOVA was conducted with dependent variables associated with children’s self-perception, family perception, friend perception. A significant group effect emerged among the groups: F (5, 01) = 3.03, p = .021, η2 = .11 for each dimension studied of self-perception, perception of the family, perception of the friend. The ANOVA follow-up revealed a significant group effect in the perception of family and friends: F (1, 73) = 6.41, p = .024, η2 = .06. Thus, in our study the self-perception of the children, the perception of the family, and the perception of friends grew with the frequency at the aggregative center and participation to the proposed activities. This shows that the proposed activities played a mediating role between the new culture and the culture of origin, which influences emotions and the structuring of identity (Bertaux & Bichi, 2008; Branch, 2020; Stan, 2020; Zhang, Dennis & Houseman, 2018). Furthermore, the evolution of the children’s perceptions (perception of self, perception of the family, perception of friends) grew over time between (T1-2006) and (T2-2017) (correlation: r = .28, p <.01).

Moreover, in (T2-2017) the correlation between the children’s perceptions and the mothers’ vision through life stories has a strong correlation r = .36, p < .01. These results confirm that the role of mothers in migrant families is essential for finding roots, looking to the future and activating inclusion and integration processes.

Furthermore, correlational exploratory analysis was conducted on the registered mothers’ life stories, starting from the ‘narrative tone’ or prosody detected by the OperaVOX app, as it can predict characteristics that will emerge later on in the narration. Three significant correlations were found. First of all, the awareness for mothers to emigrate to guarantee a better future for their children, r = .33, p <.001. Secondly, the awareness for mothers to emigrate without certainty: often, the expectations was different from the reality r = -.22, p <.05. Third, the awareness for mothers to emigrate is very complicated because it necessary to balance between two cultures, r = -.28, p <.01.
6.2. Results of qualitative analyses

In the 2006 drawings of their country of origin, children depicted very beautiful houses, full of light, vegetation and animals; they also drew many relatives who had remained in the country of origin. Instead, in the drawings of the adopted country, the houses and the streets are represented without colour, little light and only some animals and vegetation. Over time, in particular in the 2017 drawings, they began to depict their lives in Italy with their families in rich colors and with other people. In this historical excursus of this research, it emerged that children ‘s original abandonment or loss of cultural identity coincided with abandonment of their original language, in particular with the beginning of formal education, but this trend reduced in the following years. In fact, in the school years following the beginning of school, immigrant children have a tendency to integrate their culture with that of their new homeland (Favaro, 2013c; Grinberg & Grinberg, 1990; Melo-Pfeifer, 2017). This trend helps eliminate the cultural divide.

This is important because it signifies an evolution, a change, meaning the school is not a moment of breaking apart, where there is a loss or abandonment of their original culture (Pieloch et al., 2016).

Analysis of interviews with the mothers in T1 (2006) compared to T2 (2017) underlines a theory that is sustained over time; that is, in both T1 (2006) and T2 (2017), there is a desire to return to the country of origin and a strong desire not to lose contact with their country and culture. That said, their decision to return to their country of origin or to stay in their adopted homeland largely depends on what they think is the best for the future of their children (Berry, 1992; Lavis, 2010).

Our data also show that migrant mothers do not actually assimilate the culture of the adopted country. Instead, they somehow develop an “alternative identity” through which they adapt to the new culture, while maintaining their original values, ideals and language (Clegg, 2008; Grinberg & Grinberg, 1990; Kim, et al., 2018; Murray, 2017; Zhang et al., 2018).

As a conclusive remark, we would like to stress that from our observations it seems even this specific activity, along with the proposed digital technologies, positively affected mothers’ and children’ s integration strategies. The use of technologies was fundamental as an analysis strategy allowing behavior modification and supporting the acquisition of new information. The technological tools were used by immigrant mothers and children as an important “scaffolding” for personal change. Together with providing a specific technical function, such as design (IWB), recording (mobile phone), drawing (graphic tablets) and prosody analysis (the OperaVOX app) (Hughes & Alexander, nd), they also became tools of careful analysis that made it possible to change the mindset of individuals.

7. CONCLUSIONS

It is necessary to work for the recognition of cultural diversity and identity reconstruction in the new social context where immigrant children live. It is necessary to find a way to combine their dual identities rather than allow them to clash, making the child live as if “suspended between two worlds” (Berry, 1992; Compton-Lilly et al., 2017; Hernández et al., 2017; Jaramillo et al., 2017; Kim et al., 2018; Mladovsky, 2009; Zanfrini, 2007).

What is evident from the data collected in T2 (2017) of this research study is that the immigrant children lived through traumatic experience, having been uprooted from their cultural contexts, and having experiencing a total loss of their former existences, as well as social, ecological and cultural landmarks. The situation in 2006 (T1) was more complex. The second-generation immigrants showed a fragile personality and difficulty in adjusting and integrating. In 2017 (T2), instead, the situation is very different: often, the immigrants are an important link between the family and/or community, and the external cultural and social
environment, thereby promoting a process of integration and inclusion. This research shows that the immigrants involved in the study managed to achieve a role of mediation between the new culture and the culture of origin, which influences the emotions and the structuring of identity (Bertaux & Bichi, 2008; Branch, 2020; Stan, 2020; Zhang et al., 2018).

Immigrant children are capable of considering themselves as belonging both to the culture of origin, enhancing continuity with the past, and at the same time belonging to the culture the adopted country (Grinberg, L. & Grinberg, R., 1990).

The second generation is the generation that lives the first and fundamental part of the process of growth and learning stretching across two worlds, namely the family and society at large. These two worlds are distinguished by values, norms, traditions, practices, life, religion, and language (Akiba et al., 2004; Cremaschi & Alberini, 2009; Grinberg, L. & Grinberg, R., 1990; Hernández et al., 2017; Pieloch et al., 2016; Zust & Moline, 2003). The results of our experimental research are consistent with other studies, and show that today a change has occurred in the concept and role of immigration within Italian society (Branch, 2020; Favaro, 2012; Fulantelli & Pipitone, 2017; Pieloch et al., 2016).

Between T1 (2006) and T2 (2017) a change has taken place, an evolution in our society and educational reality: there is more involvement in the processes of inter-cultural exchange with an attitude of openness towards multi-ethnicity (Berry, 1992; Branch, 2020; Compton-Lilly et al., 2017; Hernández et al., 2017; Kim et al., 2018; Zanfrini, 2007; Zhang et al., 2018).

Digitally supported methods present important opportunities and challenges for researchers across the social sciences. In particular, this research study has highlighted the importance of using technological tools to support the processes of inclusion and integration of migrants. (Cowden & Kreisler, 2016; Grinberg, L. & Grinberg, R., 1990; Jaramillo et al., 2017; Kim et al., 2018; Stan, 2020; Yuan & Jiang, 2018).

The research presented here has sought to analyse the construction of inclusion and integration processes through the assimilation of cultural diversity and identity reconstruction of the migrant with the support of technological tools (Akiba et al., 2004; Compton-Lilly et al., 2017; Grinberg, L. & Grinberg, R., 1990; Murray, 2017).

7. REFERENCES


