# Contents

Introduction .......................................................................................................................................................... 3

1. Methodology ..................................................................................................................................................... 9
   1.1 Action Research ........................................................................................................................................... 9
   1.2 Participating schools, teachers, parents and pupils ....................................................................................... 11
   1.3 Challenges and limitations of the study ...................................................................................................... 12
   1.3 Challenges and limitations of the study ...................................................................................................... 13

2. Results ............................................................................................................................................................. 16
   2.1 Selection of the Materials .......................................................................................................................... 16
   2.2 Feedback on the materials ........................................................................................................................ 17
   2.3 Improving Parental Involvement .............................................................................................................. 19
   2.4 Other effects ............................................................................................................................................... 21

3. Concluding Remarks ...................................................................................................................................... 25

References .......................................................................................................................................................... 27

Annex: List of Questions .................................................................................................................................. 28

Disclaimer: This project has been funded with support from the European Commission. This publication reflects the views only of the author’s institutes, and the Commission cannot be held responsible for any use which may be made of the information contained therein.
Introduction

Between October 2018 and March 2019, 48 kindergarten and primary teachers in ten European cities, towns and villages, participated in an experiment that brought parents and teachers together around a variety of bilingual materials. In some places, parents would come into the classroom and read stories in their home languages to the entire class, while the teacher would repeat the story in the school language. In other schools, teachers discussed with parents which materials would be taken home to practice with their children. One week, this might be a word game to match pictures with words in both the home language and the language used at school. During another week, the kids would be doing addition and subtraction in their home languages with their parents. Afterwards, parents and teachers discussed the results with each other. Some parents were asked or volunteered themselves to correct the materials when the translations were not finished or when the materials were provided in a different language variety than what was spoken at home. The experiment was initiated by project partners of AVIOR, a three year Erasmus+ funded project.

What is AVIOR?

Schools across Europe are seeing an increasing number of children who are either born in another country or whose parents are immigrants and who do not speak the school language at home. This presents a challenge as schools are expected to deliver quality education for all children, regardless of their ethnic background or linguistic abilities. The AVIOR project seeks to respond to this challenge with a partnership of seven organizations from six different European countries who work together to make bilingual literacy and numeracy materials available to schools and to share best practices among teacher trainers and school leaders on how to create inclusive multilingual classrooms.

Children who lack proficiency in their country’s host language of instruction are unlikely to achieve academic success (European Commission, 2015). Yet, mother tongue language support is crucial for the development of migrant children’s self-esteem and plays an essential role in increasing parental involvement, which both enhance children’s learning outcomes. The costs involved and a lack of awareness among policy makers about the
benefits of mother tongue learning explain why few EU countries provide mother tongue support for migrant children.

By collaborating and sharing best practices at European level, the project partners hope to reduce the costs of producing bilingual materials, improve teacher professional competence and enhance migrant parental involvement in the learning process of their children. In order to achieve these goals, AVIOR employed a three-pronged approach:

1. Bilingual resources: rather than creating new materials, the idea was to translate and adapt existing bilingual materials of high quality which are offered in both the host language and the mother tongue of migrant children;

2. Teacher competence: teachers, parents and teacher trainers share best practices on multilingual and mother tongue education through study visits to schools and teacher training institutes in European countries;

3. Teacher/parent collaborative networks: parents and teachers are actively engaged in local case studies involving the newly translated bilingual resources in order to provide deeper insight into the barriers and opportunities of migrant parental involvement. This has the added benefit of creating informal local networks of parents, communities and schools, ensuring the continuity of the project’s objectives.

Figure: AVIOR project and tools (from: AVIOR User Guide)
About this report

This report brings together the results from case studies that were carried out in all six countries as part of the third goal: to enhance migrant parents’ involvement in the learning process of their children by actively engaging teachers and parents to work with the newly translated bilingual resources and create teacher/parent collaborative networks. It is based on the reports written by the project partners: NEPC (Croatia), Praxis (Estonia), Farafina Institute (Germany), the University of Western Macedonia (Greece), Terremondo (Italy) and a joint report by Risbo and Rutu Foundation (Netherlands).

Migrant students’ parental involvement

There is a large body of research showing that parents’ involvement in the education of their children has a positive effect on the cognitive development and performance of their children (Santos et al 2016; Van Driel, Darmody & Kerzil, 2016; Wilder 2014; Hill & Taylor 2004). The type of involvement may vary considerably. For instance, parents may volunteer at school outings and parties, attend school performances and meet with teachers during parent teacher conferences. Other, academic-related, activities include monitoring their children’s homework, actively assisting their children with school work or come into the classroom to help with reading or other activities.

A recent study on the integration of migrant students in schools in Europe reported that almost all European education systems acknowledge that the collaboration with students’ parents or families is considered essential in ensuring the successful integration of migrant students (Eurydice 2019). Yet, according to the same study, school heads in Europe report that parents who speak another language than the school language, are less involved in the school of their children. In the Netherlands, it was found that parents with a migrant background attend parent teacher meetings much less frequently than native parents (50% vs 75%) (Vogels 2002). Lower parental involvement was among the most frequently reported reasons for explaining why Turkish children fall behind their peers in the Netherlands (Bezcioglu-Göktolga & Yagmur 2018).
Why are migrant students’ parents less frequently involved in the education of their children?

One of the problems is that expectations of parental involvement are often perceived and presented as universal, but in reality they are based on culturally specific norms, namely those of the school and the surrounding environment. They may therefore not always align with the type of parental involvement offered by parents with a different cultural background. For instance, for teachers it may be an indication of parental involvement when parents show up frequently at school and participate in school activities, and if this is not the case they may easily conclude that parents are not interested in the education of their children. They may not be aware however, of the extent to which the parents are engaged in the school work within the family environment (Bower & Griffin 2018; Bezcioglu-Göktolga & Yagmur 2018).

Even when parental involvement activities do align, teachers may not perceive them as such, or do not recognize that it might actually be their own behaviour which prevents migrant parents from being involved in the way the teachers would prefer. This was demonstrated in a study comparing perceptions of Turkish parents and Dutch teachers in the Netherlands (Bezcioglu-Göktolga & Yagmur 2018). It was found that Dutch teachers were critical of Turkish parents, saying that the parents do not come to school to ask for help and do not participate in activities: “They don’t ask anything. They bring the child to school and immediately leave. Then I tell them they can stay if they want to see how their child is doing, but they just leave” (Idem). But according to the Turkish parents, they had frequently followed the advice of the teachers, for example by hiring private tutors to improve their children’s Dutch language skills. Teachers were unaware of this. Furthermore, the Turkish parents said that the teachers did not tolerate parents who cannot speak Dutch well, that teachers would not allow them to use Turkish among themselves, not even to translate what the teachers say. This kept some parents away from school.

When parents and teachers do not share the same language and cultural background, the communication clearly presents a challenge for both. This challenge becomes even greater when home languages are rejected by the school. Many teachers in Europe are unaware of
the research showing the benefits of a multilingual education that includes home languages, for example by using translanguaging (Herzog-Punzenberger, Le Pichon-Vorstman & Siarova 2017). They believe that using the home language may be a hindrance to the students’ learning and may confuse them. In fact, supporting the development of the full linguistic repertoire of students has been proven to result not only in better command of the school language but also in higher levels of students’ emotional well-being (Collier & Thomas 2017). No matter how well intended by the teachers, parents may perceive the school language policy as a rejection of their linguistic and cultural identity, leading to a breakdown in the communication (Bezcioglu-Göktolga & Yagmur 2018).

By allowing teachers and migrant parents to work together and using bilingual learning resources, it was expected that teachers would discover what parents are doing at home, while parents would gain more insight into the learning process in the classroom, ultimately leading to greater communication and improved learning for children with a migrant/minority background.

**Objective of the case studies**

The central question of the case studies was: How can AVIOR bilingual materials be used to support the involvement of parents of multilingual children with a migrant/minority background in the learning of their students, particularly literacy and math?

More concretely, the case studies were aimed at:

- Creating informal parent/teacher collaborative networks in six countries around literacy and numeracy in early grade learning of migrant children;
- Increasing the involvement of parents with a migrant background in learning processes in schools, and increasing their awareness of their children’s learning processes, as well as their own role in enhancing basic numeracy and literacy skills of their children.
- Creating a deeper insight among policy makers, school leaders and teachers about opportunities and obstacles for parental participation in learning processes of migrant children.
Providing policy makers with greater insight into the obstacles and opportunities related to the use of bilingual and mother tongue materials in classrooms and becoming (more) open to policies that close the achievement gap between native and non-native children through mother language support and multilingual learning.

Content of the report

In chapter 1, the methodology applied to the case studies in the six countries is outlined, including the challenges that the project coordinators experienced. In chapter 2, the results are presented and in the conclusions we reflect on some of the lessons learned.
1. Methodology

1.1 Action Research

It was originally planned to use an ‘action research’ approach to the case studies: teachers, parents and, (if possible) principals would be asked to collect information aimed at answering the central question, i.e. How can AVIOR bilingual materials be used to support the involvement of parents of multilingual children with a migrant/minority background in the learning of their students, particularly literacy and math? Parents and teachers would then each design their own research questions (e.g. a teacher could ask: ‘how can I involve more fathers to participate using this particular material?’ And a parent could ask: ‘how can I encourage my son to practice his vocabulary?’) and subsequently come up with an intervention aimed at finding a solution for the question. The results would be evaluated together. The role of the AVIOR partners was to organize feedback meetings and report the results of the case study. Through these activities, it was hoped that teachers and parents would form informal collaborative networks, eventually leading to a breakdown of the perceived barriers and towards improved parental involvement.

The case studies took place between October 2018 and were concluded by March 2019 (4-5 months). In Germany due to difficulties finding schools willing to participate, one school completed the case study between November 2018 and January 2019, while the other school experimented with the materials in May-June 2019.

In practice, the action research methodology proved too complicated. A major difficulty was the lack of time reported both on the side of the teachers and on the side of parents. To start, it was a challenge to get teachers and parents together at the same time. Teachers in Germany and the Netherlands reported being overloaded with work and considered these activities as additional work. Also, it was difficult for teachers to explain the method to parents who did not speak the school language. This was a challenge anyway for teachers and researchers who had no translators available. As reported by Greece:

“The implementation of the action research method as it was proposed couldn’t work with the research groups in our case study, mostly because parents did not feel confident about their language awareness and skills in Greek; actually, when we
started the case study, they were barely talking, because they felt shy and insecure about their language performance.”

To overcome these challenges, the project coordinators from Estonia, Germany, Italy and the Netherlands decided to hand the materials to the teachers and then left it to the teachers to present the materials to the parents. As was reported by Italy:

“as in any experimentation, most of the work is left to the enthusiasm of the teachers and their willingness to test a new methodology. In many contexts, this task usually falls on a limited number of teachers, who may feel overwhelmed by the work required. In order to overcome that, we enacted two different strategies: we involved the school director before talking to the teachers as an essential step in entering the schools and developing a fruitful exchange with them; we left the teachers free to adapt the materials and take inspiration from them, without giving too many instructions. We just clarified to them the goal of the experimentation (i.e. how multilingual materials could encourage parents’ involvement) and asked them to periodically report to us.”

In Croatia, AVIOR materials were presented first to a professional community of preschool teachers, primary school teachers and language experts and representatives of the Croatian National Teacher Training Agency. Later, the research team presented the materials during a workshop for parents and children together with teachers and assistant teachers. The whole family was encouraged to get involved: teachers gave instructions to older brothers and sisters how to play with their younger siblings.

After some time, the project coordinators would get back in touch with the teachers and receive feedback. Feedback was gathered sometimes in the form of focus group interviews, either mixed groups with teachers and parents together, or in separate groups. Feedback was also gathered via phone, email or skype interview. A questionnaire was distributed to all partners as a guiding tool (see Annex). In Greece the project coordinators also did observations in the classrooms, using observation sheets to discuss and collaborate with the
teachers and also watch the children’s progress throughout the implementation of the case study.

1.2 Participating schools, teachers, parents and pupils
A total of 42 teachers from 12 primary schools and kindergartens participated in the study. The teachers worked together with 67 parents and 211 children ranging in age between 4 to 8 years. In Italy, one of the school teams became so enthusiastic about the materials, they decided to extend the case study to older pupils (up to 11 years old). In Germany, the materials were tested in more schools, but unfortunately our partner was unable to receive feedback from the teachers or the parents due to a lack of time on the part of the teachers. These schools were therefore left out of the analysis.

Table 1: participating schools, teachers, parents and pupils

<table>
<thead>
<tr>
<th>Country</th>
<th># schools</th>
<th># teachers</th>
<th># parents</th>
<th># pupils</th>
<th>Age groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Croatia</td>
<td>2</td>
<td>4</td>
<td>20</td>
<td>20</td>
<td>5-7 and 6-8 yrs</td>
</tr>
<tr>
<td>Estonia</td>
<td>2</td>
<td>8</td>
<td>9</td>
<td>9</td>
<td>4-8 and 7-9 yrs</td>
</tr>
<tr>
<td>Germany</td>
<td>2</td>
<td>8</td>
<td>16</td>
<td>48</td>
<td>5-7 yrs</td>
</tr>
<tr>
<td>Greece</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4-6 yrs</td>
</tr>
<tr>
<td>Italy</td>
<td>2</td>
<td>12</td>
<td>10</td>
<td>122</td>
<td>5-7; 8-9; 10-11 yrs</td>
</tr>
<tr>
<td>Netherlands</td>
<td>2</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>4-6 yrs</td>
</tr>
<tr>
<td>Total (vs planned)</td>
<td>12 (12)</td>
<td>43 (48)</td>
<td>69 (48)</td>
<td>213 (240)</td>
<td></td>
</tr>
</tbody>
</table>

Ethnic background of pupils and languages spoken
As the focus of the AVIOR project is pupils with a migrant background, the project partners selected schools with a high ethnically and linguistically diverse student population. Usually these were schools that the partners had already built up a relationship with. Some schools and teachers participated in other AVIOR activities, such as the study visits or the implementation activities.

Most of the schools are situated in low-income neighbourhoods with parents who either belonged to ‘traditional’ immigrant groups or had arrived more recently. In Estonia, one the schools had a mixed student population, with children from different migrant backgrounds as well as from the Russian minority. The other Estonian school was an international school catering to highly educated temporary migrant workers (‘expats’). In Croatia, the majority of
the school population in both schools are children whose parents belong to a Roma minority group, speaking the Bayash language (see Box 1, below).

Table 2: Ethnic background of pupils and teachers, languages spoken and languages chosen for the materials

<table>
<thead>
<tr>
<th>Country</th>
<th>Ethnic background pupils</th>
<th>Languages spoken</th>
<th>Ethnic background teachers</th>
<th>Languages chosen for materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Croatia</td>
<td>Roma or Romani</td>
<td>Bayash, Croatian</td>
<td>Croatian; Roma educational assistant</td>
<td>Bayash</td>
</tr>
<tr>
<td>Estonia</td>
<td>Russian</td>
<td>Russian, Estonian &amp; other</td>
<td>Estonian</td>
<td>Russian</td>
</tr>
<tr>
<td>Germany</td>
<td>Syrian, Afghan, Russian, Turkish, Italian, Portuguese, Greek, Nigerian, Iranian, Iraqi</td>
<td>Arabic, Russian, Albanian, Turkish, Greek, Polish, Italian, Portuguese, Spanish (mostly Arab and Russian)</td>
<td>German, mother tongue teachers of Turkish and Arabic</td>
<td>Arabic, Russian, Albanian, Turkish, Greek, Polish, Italian, Portuguese*, Spanish* (mostly Arabic and Russian)</td>
</tr>
<tr>
<td>Greece</td>
<td>Albanian, Iranian, Roma (Turkish speaking)</td>
<td>Albanian, Farsi, Turkish</td>
<td>Greek</td>
<td>Albanian, Farsi*, Turkish</td>
</tr>
<tr>
<td>Italy</td>
<td>Nigerian, Moroccan, Chinese, Egyptian, Romanian, Albanian, Peruvian</td>
<td>Italian, English, Arabic, Chinese, Romanian, Spanish</td>
<td>Italian</td>
<td>Italian, English, Arabic, Chinese, Romanian*, Spanish*</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Turkish, Moroccan, Polish</td>
<td>Turkish, Arabic, Berber, Polish</td>
<td>Dutch</td>
<td>Turkish, Arabic, Polish</td>
</tr>
</tbody>
</table>

* Note: languages with an (*) were not available as AVIOR materials but were added by teachers and parents themselves.

Box 1: Background: Roma parents in Croatia

"Roma [or Romani] people in Croatia speak several different languages. Bayash Roma in Northern and Eastern Croatia speak ‘ljimba dâ bjash’ or: Bayash language. Bayash Roma arrived to what is today Croatia during the middle of the 19th century, after the abolition of slavery in which the Roma lived in Vlaska (today Romania) and Moldova. In today’s Croatia, around 36.5% of Roma speak ‘ljimba dâ bjash’.

Except in Croatia, Bayash is spoken in Serbia, Hungary and countries to which this language group has emigrated to. Bayash language is the archaic Romanian dialect language, sometimes referred to as Romanian Bavarian. In Croatia there are actually three dialects of Romanian Bavarian (‘Erdélyi’, ‘Baranjskomuntsenški’ and ‘Ludarsko-Muntenski’).

Bayash is mainly a spoken language and until recently there was no written standardization of the language.

Most Romani children starting school are either not fluent in Croatian, or do not speak/understand it all. Unlike other children, for whom Croatian is their first language, once they start school, or one-year preschool program, Romani children spend every day in school, learning in a language they do not understand at all or very well.

Apart from that, about 95% of Roma children in Croatia live in poverty. This means that they have fewer books at home, that they probably visit libraries or theatres rarely or never, and that they might not have many toys to play with at home and are less frequently involved in extracurricular activities. In conclusion, poverty has a great effect on their language development as well. Staff in some of the schools with a significant Roma population try to improve achievement of children from deprived communities by offering them more content (e.g., additional lessons, classes, more time in school) instead of merely accepting the fact that children do not speak or possibly understand Croatian.” (Extract from the Croatian report)
1.3 Challenges and limitations of the study

The project partners faced different challenges while implementing the case studies:

**Practical obstacles**

Practical obstacles were mostly related to the experimental character of the project. Some materials were not completely finished when the case studies were carried out (for instance the layout still had to be completed) and there were technical difficulties in adapting the materials to the different languages. On the other hand, this sometimes proved to be a welcome opportunity to involve parents more in the project: in the Netherlands, one of the higher educated parents helped out with translating and correcting the Arabic versions. In Italy, parents volunteered to translate the materials into languages that were not on our list. Helping out with translations and corrections can give parents the feeling of being experts, and enhance the process.

**Lack of time by both teachers and parents**

The lack of time by both teachers and by parents was a serious constraint mentioned by the project partners. Not only was there little time to explain the project beforehand, but it also proved challenging to gather feedback at the end or in between. In one case, time constraints prevented feedback to be gathered at all, even though the teachers said they and the parents had used the material. As Germany reported:

“The major challenge for the team was to gain the commitment of schools and teachers to participate in the case study. Schools and teachers are generally overloaded with work and do not find time for any extracurricular activities. Some schools are already involved in numerous projects and initiatives and do not want to commit to any additional activity. For parents it was difficult to find the time to come for meetings to be introduced to the materials and to provide feedback. Most parents who used the materials are working and have only little spare time to spend with their children.”
Communication with parents

Challenges were reported by teachers and project coordinators with regard to the communication with the parents. This was especially the case with parents came low social economic backgrounds. For instance in Croatia, teachers do not speak Bayash (or other Roma language) and parents are not always fluent in Croatian – or lack specific vocabulary to help their children with school work or follow what goes on in school. Here, the role of the educational assistant for the Roma was reported as being crucial. In the Netherlands, a parental coordinator who could speak Turkish played an important role in facilitating the communication between the school and the parents. With parents who were bilingual, it was easier to work with the materials, as was reported in Italy, because they could follow what was being said in both languages and could interact with the class in a bilingual way. In Greece, the communication with parents was not as frequent or easy as the teachers wanted. This was attributed to the teachers’ workload and to the level of Greek language skills. Some parents could not understand the instructions that were given by the teachers. In addition, it was mentioned in Greece that the refugee families feel that they are in a transitional phase and often do not have the motivation to learn the Greek language or to invest in school.

Limitations of the research

Schools are not sterile labs where every condition can be controlled. They are busy environments where teachers may have only 15 minutes to talk before they are called back to their classrooms. Also, during focus group meetings with parents, younger siblings may be present who demand their parents’ attention. The outcomes should therefore be viewed within the context in which the studies were carried out.

A major limitation was that the project coordinators were usually not present when the materials were used in the classroom or at home and had to rely entirely on the feedback provided by the participants. The questionnaire was also not administered consistently everywhere. Rather, the project partners opted for a more flexible approach and gathered information from different participants whenever they could: by email, by phone or when
walking in the school corridors. Still, we were able to get a good impression of how the materials were used and whether their use contributed to the goals we set.
2. Results

As mentioned in the Introduction, the case studies were carried out with the objective of finding out whether the AVIOR bilingual materials could increase the involvement of parents with a migrant background in the learning process of their children. As we will see in this section, the materials did much more than that.

2.1 Selection of the Materials

The schools could choose from 10 different types of literacy and numeracy materials: bilingual stories, word and math games, lesson plans for teachers with suggestions for creating multilingual classroom activities and a series of themed word posters to hang up on the classroom wall.

Teachers were for the most part free to select which materials they wanted to use. The Language Games were selected in all countries. Of these, Bingo was the most frequently mentioned. Second most often selected were the Math Cards (selected in four countries). The bilingual stories (A Chocolate Cake in Hawaii and A Different Kind of Chick), the lesson plans for Creating Multilingual Word Lists and the Math Cards were used in three countries. Two countries selected the Word Posters, Listen and Act and Maths-Naturally part I. Not selected at all were Maths, Naturally, Part II, which was considered too difficult for the age group by Italian teachers and the software applications. The latter may have been because of the lack of the necessary equipment (tablets or smart phones).

In Germany, in addition to the AVIOR materials, other multilingual stories were used that were broadcast by radio (Bayrischer Rundfunk).

Translations were provided in the following languages: Albanian – Arabic – Bayash – Croatian – Dutch – Chinese – English – Estonian – German – Greek – Italian – Polish – Russian – Turkish. Not all the materials were produced in every possible language combination; only those language combinations that were considered relevant for the schools were created, sometimes by the project coordinators, sometimes by the schools or the parents.
Table 3: Overview of the AVIOR materials

<table>
<thead>
<tr>
<th></th>
<th>Literacy</th>
<th>Description:</th>
<th>Selected by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Language Games (Bingo, Completing Words, Counting Colours, Linking Words, Three Word Puzzle)</td>
<td>Bilingual games for a variety of activities to encourage vocabulary in both languages.</td>
<td>All</td>
</tr>
<tr>
<td>2</td>
<td>Word Posters (14 posters with different themes, e.g. body parts, days and weeks, fruits and vegetables)</td>
<td>Bilingual word posters.</td>
<td>Greece, the Netherlands</td>
</tr>
<tr>
<td>3</td>
<td>A Chocolate Cake in Hawaii</td>
<td>Illustrated story for reading out loud. Same story is available in many different languages.</td>
<td>Estonia, Germany, Italy, the Netherlands</td>
</tr>
<tr>
<td>4</td>
<td>A Different Kind of Chick</td>
<td>Story around the theme of inclusion and exclusion with different language activities.</td>
<td>Greece, Italy, the Netherlands</td>
</tr>
<tr>
<td>5</td>
<td>Creating Multilingual Word Lists (lesson plan)</td>
<td>A lesson plan for teachers to compare different languages in the classroom and to support grammar lessons.</td>
<td>Germany, Greece, Italy</td>
</tr>
<tr>
<td>6</td>
<td>Software applications to create stories and other classroom activities (lesson plan)</td>
<td>A power point explanation of how to use three different (free) software apps to create stories with the children and compare the different languages in the classroom.</td>
<td>None</td>
</tr>
<tr>
<td>7</td>
<td>Listen and Act: the Body (lesson plan)</td>
<td>Explanation of learning different languages using physical activities (Total Physical Response -TPR).</td>
<td>Estonia, Greece</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Numeracy</th>
<th>Description:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Math Cards</td>
<td>Bilingual math games to practice comparisons (bigger/smaller) and operations (addition, subtraction, multiplication and so forth)</td>
<td>Croatia, Estonia, Greece, the Netherlands</td>
</tr>
<tr>
<td>9</td>
<td>Maths, Naturally! Part I</td>
<td>Bilingual math exercises for beginners</td>
<td>Greece, the Netherlands</td>
</tr>
<tr>
<td>10</td>
<td>Maths, naturally! Part II</td>
<td>Bilingual math exercises for older/more advanced students</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Feedback on the materials

Overall, the materials were well received, especially by the children and the parents. All parents in Germany provided the feedback that their children liked the (Chocolate Cake) story, they appreciated the colourful pictures. The parents said that the children also liked the word puzzles and used them frequently. In Greece, “the students reacted to the material with great enthusiasm. The fact that they were encouraged to use corresponding words in their native language brought great pleasure and particular interest to their classmates.” In the Netherlands, one parent reported that whenever her daughter received new material
from the teacher to practice at home, she would rush home and urge her mother to start doing the exercises with her.

Especially the playful aspect of the materials was much appreciated. In Greece, both teachers and parents indicated that doing all these activities in a playful way was for their children the key to success. In Croatia, parents felt the materials were “very fun and instructive”, while in Estonia, the parents’ overall impression of the material was positive. The parents liked the materials especially because they saw how interesting and fun it was for the child.

As some materials were not completely finished, some children commented that they would have preferred the materials to be printed in colour and that they didn’t like using the test versions. In Germany, many children started to realize that the Chocolate Cake story contained a moral lesson which made them hesitant as it felt like school-related material.

The materials and their use in the classroom seem to have been most appreciated by teachers in Greece and Italy. In Italy: “We had a very positive reception since we managed to involve six classes, i.e. 12 teachers and 10 in activities addressed to whole class groups. The teachers seemed to be waiting for such an experience, since they were already in search for instruments to encourage the learning of their students in multilingual classes. We just needed to give them inputs.” In Greece, the teachers viewed the materials as a good way to enhance the children’s academic achievement, including enriching their Greek vocabulary, but also to improve the way they expressed themselves. “The most powerful help of the material was to improve the children’s psychology and certainly to the realization that their mother tongue is connected with Greek.” The parents said that through this process, their children started feeling more confident of their skills in the Greek language but also gained a better understanding of their mother tongues.

For some teachers (in the Netherlands and Italy) the math materials did not match the method they were using at the moment. Some said they had difficulties to incorporate the
materials in the curriculum. Other teachers, notably in Estonia, were said to appreciate the autonomy to use the materials in whatever way they wanted.

2.3 Improving Parental Involvement
All project partners reported that the materials did indeed improve the participation and involvement of parents in the education of their children and in the school process.

Teachers mentioned that communication had improved with both the children and the parents who participated (e.g. Estonia and Croatia). For the preschool teachers in Croatia who worked with the AVIOR material, the communication with parents was reported to be even better than before. This was because the materials demonstrated to the parents that the teachers valued the language of the children and therefore also their culture, while allowing teachers to accomplish a better contact with parents.

In Greece it was reported that for the teachers the experience was ‘extremely helpful, as it gave them the chance to communicate and cooperate with the parents of the students.’ By discussing with the parents how the material would be applied at home, the teachers in Greece said that they had gained the trust from the parents about the work involved in acquiring both languages.

In Italy, the teachers found the experiment a very useful way to involve parents who were otherwise difficult to involve, by promoting an active role of parents in the education of their children. In one school, it was reported that:

“the experiment created a sort of ‘cascade effect’ among the parents: if at the beginning only a few wanted to participate, others, when hearing their children reporting home what they had done in class, asked to join. As a consequence, the teachers decide to replicate the activity throughout the schoolyear. On the other side, the parents who participated were very happy to be involved in the school-life of their children and find it easier to collaborate with the teachers on a very practical way: this may represent a good starting-point for building a stable teacher-parent relationship and communication in the future.”
In the Netherlands, one teacher wrote that she felt that “parents are more involved in the education of their child. I see them more at school and the parents also ask me questions for more school material (other than the AVIOR materials). I see that the collaboration with parents has a positive effect on the development of the children.” Also in the Netherlands, parents were happy with the material and delighted that they could help their children with the learning process. They said that they now had a better idea of what their children were learning at school.

‘Hard to reach’ parents
Several project partners mentioned that the materials were also useful to establish better communication with what they called ‘hard to reach’ parents. In Germany, for instance, “the study primarily fostered the already positive relationship between engaged parents and teachers. However, it benefited the relationship between teachers and ‘hard-to-reach’ parents indirectly in two ways: (1) Teachers developed a better understanding for the languages and the background of the families who they know little about … Teachers feel they are now better equipped to reach out to some of the families who they found difficult to reach before. (2) Teachers and parents who participated in the study discussed several ways of how the materials could be used in the future and how more connections between their use at home and in the classroom could be created (see conclusions). They also discussed strategies how ‘hard-to-reach’ parents could be involved through the AVIOR materials in the future.”

In one of the schools in Germany, an Arabic-speaking mother who had never participated in a school-related activity before, came to school and read the Chocolate Cake story in Arabic to the class. The teacher considered this a big success.

In The Netherlands, one of the schools deliberately made the choice to work with parents who were ‘harder to reach’. As a result of working on the materials, the school noticed that the parents showed up more often at the school and as mentioned above, the contact with the teachers had improved considerably. A Turkish-speaking mother who had not received
much formal education herself and whose children all went to the participating school, had never participated in school activities. Because of this project, she felt she was welcome at the school, she was allowed to use her own language which was not the case in the past. The teachers said that they had never seen her enter the classroom before but now she regularly comes in and asks them if there is anything she needs to do. She also has a better idea of what the school does.

In the case of the Roma parents in Croatia, the results were particularly encouraging because of the often difficult and marginal position of the Roma in Croatia. The project partner pointed out that, “Every effort to have Roma pupils and students feel more welcome in schools, and excel in their learning outcomes, counts”. One of the misconceptions among teachers is that Roma parents do not care about the educational achievement of their children, while Roma parents, especially when they are not educated themselves, doubt their own capabilities. Through this project, the parents experienced that they were able to provide support to their children at home. And also during the instruction workshops, the teachers were able to see how the parents carried out the assignments and could encourage them to practice at home. In this way, it was clear that even if parents identify themselves as ‘uneducated’ they could still be involved in the learning process of their children.

The key conclusion drawn by a school principal in the Netherlands was that it is the “curriculum that links the parents to school. Parents need to have a reason to work together, to come out of their comfort zone. This project offers that reason, it makes the connection so that the triangle between parents, teachers and child can work smoothly.”

2.4 Other effects
Besides improving the relationship between school and home, the AVIOR experiment with the bilingual materials also had other, unforeseen effects.

Improved relationship between parents and children
One unexpected effect was that that parents in almost all countries reported that the project contributed to a better relationship with their children and that they were learning together. In Estonia, parents saw the materials as an additional activity to engage their children to spend time together. In Greece, something parents really enjoyed was the fact that their children were able to “teach” them words and phrases in Greek and helped them improve their language performance respectively. In Croatia, as mentioned previously, in some families all members participated in doing the exercises with the child. For most parents it was the first time that they saw Bayash in the written form. Parents commented that “it was fun! We also learned how to pronounce some words accurately ourselves. So, we are learning something with our children. And playing while learning.”

Greater awareness of and insight about multilingualism

As mentioned in the Introduction, teachers in Europe lack training and awareness about the benefits of multilingual education, which may give rise to misconceptions. In Croatia, most of the teachers do not speak the Bayash language and do not allow children to speak Bayash language at school. In fact, teachers and parents shared numerous misconceptions regarding learning second language, including that it would be best for children if only Croatian is spoken in school, that speaking the Boyash language would prevent them from mastering Croatian, that parents should speak Croatian to their children at home and that children who do not speak Croatian cannot achieve good results in school. Many parents teach their children not to speak Bayash when in school. The use of the AVIOR materials contributed to busting at least the first and second misconceptions. After a workshop during which the AVIOR materials were presented to parents and children, teachers said that they now recognized more “the importance of preserving mother tongue for the purpose of development and learning in general”. For the first time, it was reported, “it was clear to everybody that Bayash was not only ‘allowed’ but recommended.” Furthermore, because the Boyash language did not have a written form until recently, “seeing the letters and learning the Boyash alphabet helped teachers understand the specifics of Boyash pronunciation and some stated they now finally understood why Boyash pupils mispronounced Croatian words... Before they thought that they simply cannot master Croatian.”
In Germany, teachers observed that many children were not very confident in using their parents’ language in front of others. They had not learned to read in their parents’ language or felt too shy because they were uncertain whether speaking another language was a shortcoming or a benefit. The materials helped some children realize that it is in fact an advantage. Because of the project the teachers developed a better understanding of the languages and backgrounds of the families they didn’t know very well. The materials helped raising awareness among teachers of the benefits and potential of knowing multiple languages and teachers suggested that they wanted to use the materials in the future for comparing languages and identifying similarities. This could be done at home and in the school and would help children realize that most languages are connected and that knowing more languages makes it easier to understand other languages.

In Italy and Greece, it appeared that teachers of the newcomer classes used the AVIOR materials primarily as instruments to teach the school language via the students’ mother tongues. However, in Italy, it was reported that even though the value of learning the students’ mother tongues in itself and of multilingual education was not immediately clear to all, the AVIOR case study contributed to raising awareness about multilingualism and motivated the teachers in taking a more active role. Several teachers decided to participate in the study visits to Tallinn and Amsterdam because they wanted to know more about multilingual practices elsewhere.

In the Netherlands, one teacher said that because of the project, she started thinking more about multilingualism, that she is more aware of it now. For example, now she would try to find another child who speaks the same language so that they can work together.

**More contact among different parents**

One of the more surprising effects was that the experiment also improved the contact between parents from different language and cultural backgrounds. This was the case in the Netherlands, where parents reported that they would normally only interact with parents who speak the same language, but now they worked together with other parents. As one
parent said: “I used to take my child to school and I wouldn’t talk to anybody. But now I also have contact with the other parents. We work together. With Turkish and Spanish speaking parents.”

Boosting parents’ confidence
Finally, for parents occupying very marginalized positions in society, the AVIOR project boosted their confidence. In Croatia, the Roma parents felt proud. For most parents it was the first time that they saw Bayash in the written form. Also, they understood that their support of their children at home has a positive influence on their children’s development and learning. The parents were intrigued by seeing school-approved usage of materials in their own language. The introduction of AVIOR materials by teachers showed parents that they and their children are respected in school.

In the Netherlands, the AVIOR project provided encouragement for a mother to start Dutch language classes for the first time since she arrived in the Netherlands 30 years ago.
3. Concluding Remarks

We know that parental involvement has a positive effect on children’s learning. We also know that allowing bilingual children to use their entire language repertoire, including the school language along with their home languages, is a strong indication for school success. This project was an attempt to use bilingual materials as a way to improve the communication between parents and teachers for the benefit of multilingual migrant pupils. The results indicate that this approach was successful: project partners in six countries reported that after three to five months of using the materials in the classroom and at home, there was more communication and a better relationship between both parents and teachers. The project also led to more engagement between parents and their children, improved the relationship between teachers and students and even among parents from different language groups. The project also indicated that it was possible for schools to reach ‘hard to reach’ parents from lower social economic backgrounds with very limited skills in the school language. They were seen coming into the school for the first time and actively participating in the activities, thereby boosting their self-confidence.

We did not measure whether there were also gains in the academic development of the pupils, but a similar experiment carried out in the United Kingdom resulted in higher levels of literacy in the school language among the students who participated as well as fluency in reading in their home language. In the long term, the achievement gap between migrant and native students was narrowed (Sneddon 2008).

Lessons learned and some recommendations:

▶ The curriculum is what connects the school, parents and student.

▶ Academic activities which are respectful of the parent’s cultural identity and heritage, such as bilingual activities, can enhance the mutual understanding and therefore the communication between parents and teachers.

▶ Parental involvement does not only mean being active or ‘seen’ at school; activities at home which do not require parents’ presence at school can be equally valuable and enhance the relationship between parents and their children;
The value of collaborative activities between teachers and parents may lie in the process, not just in the results. By asking parents to help with the translation or correction for instance, parents may feel acknowledged as experts which can contribute to their self-esteem and further improve the relationship with the teacher.

The activities or materials do not have to be very costly or fancy; with simple games and stories much can be achieved.

Training of teachers in the benefits of multilingual education and the role of home languages in migrant children’s learning process is essential.

Supporting overburdened teachers for example in the form of teaching assistants who share the languages and cultural backgrounds of the students, or through parental coordinators, is crucial. The role of NGO’s and migrant organisations in supporting schools should also be acknowledged and supported.

Bilingual teaching materials should be made available for free in all EU member states, both for teachers and parents and in as many languages as possible. This could also help the learning process of children who migrate through different education systems with their parents.
References


OECD (2018). *The resilience of students with an immigrant background: factors that shape well-being*. on the perception of family support and control, school satisfaction, and learning environment.


Annex: List of Questions

Questions for Parents and Teachers:

1. Have you used (one of the) AVIOR materials this last two weeks?
2. Which material are you using? (if you used more multilingual material give answers per material)

Questions for PARENTS:

Material A .................. (fill out which material it was)

1. When did you use the material? Why this one?
2. Please: describe the setting: With whom and at what location (at school/ at home?)
3. How did you like the material?
4. How did your child like the material?
5. Was it difficult to use the material? Why?
6. What did you like about material...
7. Did the material help in reaching your goal/ answering your research question? How?
8. Please write down any other relevant experiences! We’re very curious

Questions for TEACHERS:

1. How has the contact between you and the parents been?
2. When did you use the material(s)? Why these one(s)?
3. Please: describe the settings: With whom and at what location (at school/ at home?)
4. Has the material helped to communicate with the parents? And your student(s)?
5. What is your experience with the material: Any positive or negative feedback?
6. How did the parents like the material?
7. How did the student(s) like the material?
8. Are you communicating more with the parents and your student(s)?
9. Did the material help in reaching your goal/ answering your research question? How?
10. Please write down any other relevant experiences! We’re very curious!