RESOLVING LANGUAGE BARRIERS WITHIN THE CONTEXT OF GLOBAL CO-HABITATION, WITH NEW EDUCATIONAL SUPPORT STRATEGIES FOR RESPONSIBLE INNOVATION

Sena BERKTAS¹, Busayawan LAM¹ and Ben WATSON²
¹Brunel University London, United Kingdom
²3M, United Kingdom

ABSTRACT
This paper focuses on resolving language barriers within the context of co-habitation for displaced communities, specifically between immigrant parents and Turkish teachers within the Turkish education system. Syrian immigrant parents are the majority of immigrants in Türkiye, and they struggle to play a role in their children’s education because of language problems which negatively affects immigrant students’ success as well as the welfare of the community over the long term. This paper offers a framework of parameters for Human Centred Design and Information Design, in addition to new educational support strategies, methods and mentoring, which can be relied upon to help students and graduates address current and future challenges for responsible innovation. The paper will expand on the detailed findings that Syrian parents and local teachers might not be able to maintain a dialogue due to language limitations, negatively affecting the success of Syrian students. Hence, this paper proposes an analysis of language barriers between Syrian parents and Turkish teachers including literature review and case studies. It has been reported that language barriers extend beyond language limitations, to other factors associated with ‘unfamiliarity with the issue’, ‘emotional barriers’, ‘cultural differences’, and ‘personal features’ according to context, which benefits from a design-led multi-perspective approach.

Keywords: Language barriers, immigrant parent-local teacher communication, global co-habitation, human-centred design, information design

1 INTRODUCTION
This paper will discuss preliminary results of the doctoral study, which aims to develop design guidelines for Turkish school management teams to reduce language barriers between local primary school teachers and immigrant parents to help co-habitation for displaced communities. The research is divided into 3 years. The first year focused on literature review and case studies. The second year will concentrate on primary research with key stakeholders and data analysis. Finally, the last year will be dedicated to the development of guidelines and practical solutions (see Table 1). In this paper, key results from literature review and case studies will be discussed. The goal was to develop an in-depth understanding of reasons contributing to language barriers between Turkish primary school teachers and immigrant parents. In this way, suitable design approaches can be selected to address these issues appropriately.

Table 1. Processes of the PhD research
1.1 The rationale behind the study
In 2013, Syrian immigrants started to migrate to Türkiye because of the war in Syria. According to the Turkish Immigration Administration (2022), there are currently 3.76 million Syrians who are the majority of the immigrants living within Turkish borders. The Turkish context shows that these people are unable to integrate into the local community mainly because of language barriers (Akar and Erdoğdu, 2019) since the language problem is associated with other problems they are often encountered which can be explained with Maslow’s hierarchy of needs.

Maslow divided people’s needs into five groups and illustrated them in a pyramid to prioritise these requirements. These are 1) physiological needs; 2) safety needs; 3) belongingness and love needs; 4) esteem needs; and 5) self-actualization needs. According to his theory, people must meet basic needs to survive. The psychological needs category follows basic requirements, which covers intimate relationships and friends. The last one is self-fulfilment needs, which focuses on achieving full potential of a person as illustrated in Figure 1. Syrian immigrants could not meet their basic requirements, as they cannot easily find jobs which leads to financial problems. Thus, they encounter difficulties buying food, paying for rent and bills, among other costs. Finding a job is especially challenging for people who cannot speak the local language (Jamil et al., 2012). Those people also generally have problems socialising with their neighbours and other people around them due to language barriers. As a result, they usually are not able to meet their psychological requirements either. Due to the language barriers, Syrian immigrants are not able to integrate into the community (Akar and Erdoğdu, 2019; Vesek, 2021) and struggle with various issues. Although education has great effects on communities (Hjalmarsson and Lochner, 2012), this research focuses on the educational side of their problems.

Education is one of the most important issues for communities since developed societies give great importance to education although the welfare level of the region is related to the quantity of educated people in the community. Hjalmarsson and Lochner (2012) reported that educated communities have lower crime rates. In this sense, education helps communities to have more peaceful lifestyles. Moreover, educated communities reach better economic conditions over time (Barro, 2001). Qualified workers create value in work areas, which helps nations to reach higher economic levels. Consequently, the countries become less dependent on other nations (ibid). With regard to this, governments should improve education of communities in terms of having a better standard of living. Parents play a crucial role in education. Parental involvement often has positive effects on students’ success (Alper and Yıldız, 2015; Đurišić and Bunijevac, 2017), especially in primary school levels and hence, parent-teacher communication needs to be improved. This project focuses on communication between immigrant parents and local primary school teachers in Turkish school which can help welfare of the Turkish community in a long-term plan.

1.2 Research approaches which can help the research problem
This research covers human and communication issues, which require a Human-Centred Approach and suitable means to help both parties communicate. The design approach frames the whole research project and ensures an in-depth understanding of other factors which directly or indirectly affect existing problems. In this case, the researcher will involve different stakeholders including teachers, parents, the school management team, and the interpreter service team to gain a different variety of views. Information Design principles often facilitate the conveying of information to others in a clear way (Black et al., 2017—see Section 5.2), so the principles can be useful for the guideline which are aimed to be given to school management teams.

2 BACKGROUND RESEARCH
Examining the context, there is a large group of studies for language barriers in healthcare services but usually not in schools. Regarding the Turkish context, there is no in-depth examination and solution for language barriers which can help immigrant parent-Turkish teacher communication so this research will be a unique study to help parent-teacher communication, especially in Türkiye. The nature of language requires an in-depth understanding, and this paper will mostly focus on key factors accompanying language barriers.
3 AIM AND OBJECTIVES
The aim of the paper is to have an in-depth understanding of factors contributing to language barriers, and address language barriers between immigrant parents and local teachers to decrease the impact of language barriers in Turkish schools. The objectives are given as follows:

1. To explore language barriers within the context of co-habitation for displaced communities, specifically between Syrian immigrant parents and local teachers within the Turkish education system.
2. To examine how Human-Centred Design and Information Design principals could help this project.
3. To introduce new educational support strategy for responsible innovation-offering a guideline for school management team which can help reduce language barriers between teachers and immigrant parents.

4 METHOD
Firstly, the researcher carried out a literature review to have a better understanding of problems of Syrian immigrants in Türkiye (see Inclusion & exclusion criteria for literature review in Table 2) and found out that language barriers are the main factor behind most of their challenges. After deciding focus on the educational side of their problems (see Section 2 and 3), she examined case studies to have an in-depth understanding of factors affecting immigrant parent-teacher communication in Türkiye (see inclusion & exclusion criteria for the case studies in Table 3). Meanwhile, she examined language barriers context, factors contributing these barriers (see Section 7.1). Finally, the researcher shows how other factors contribute to language barriers between the two parties (see Section 7.2), and discusses which factors need to be taken into account for the solution phase (see Section 8).

Table 2. Inclusion & exclusion criteria for literature review based on problems for immigrants in Türkiye

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent reports of the Turkish Government focus on problems of Syrian immigrants</td>
<td>○ The reports which are not recent ○ The reports which examine problems of other minority groups</td>
</tr>
<tr>
<td>Recent research from the Turkish context focuses on Syrian immigrants</td>
<td>○ The papers which do not cover the last 10 years. ○ The papers which focus on other immigrant groups</td>
</tr>
<tr>
<td>Updated information from official websites related to Syrian immigrants: Republic of Türkiye Ministry of Interior Presidency of Migration Management (goc.gov.tr), official charities based on Türkiye (e.g., multeciler.org.tr), Turkish newspapers &amp; journals</td>
<td>○ Information which is not recent/updated ○ Information which does not focus on Syrian immigrants. ○ Sources which are not based on Türkiye.</td>
</tr>
</tbody>
</table>

Table 3. Inclusion & exclusion criteria for case studies based on problems for immigrant parents and Turkish teachers

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>The examples focus on examining language barriers between immigrant parents and local teachers in Türkiye</td>
<td>The examples focus on different problems of immigrants in Türkiye in other contexts</td>
</tr>
<tr>
<td>The studies based on primary education</td>
<td>The studies based on other education levels (e.g., kindergarten, middle school, high school)</td>
</tr>
<tr>
<td>The examples include primary data from local teachers and/or immigrant parents</td>
<td>The examples which do not include primary data from Turkish teachers and/or immigrant parents</td>
</tr>
</tbody>
</table>

5 DESIGN APPROACHES WHICH CAN HELP LANGUAGE BARRIERS

5.1 Human-Centred Design (HCD)
The HCD approach has been referred to as a theory for considering users as well as their environments in the design process (Giacomin, 2014, IDEO, 2015). The design approach has often been used to solve human problems. There is HCD pyramid offered by Giacomin (2014) – see Table 4, which could be applied to various design processes. The triangular pyramid includes five phases from the bottom to the top: 1) human factors (who); 2) activities-tasks and functions (what); 3) interactivity (when); 4) semiotics-communication and discourse (how); and 5) meaning (why). The question in the top of the pyramid could be useful in terms of explaining reasons for developing new solutions while the following
steps could be used to create solutions. In this project, HCD principles offered by Giacomin (2014) are followed, so the pyramid can be addresses based on this research (see Table 4).

Table 4. The Human-Centred Design pyramid (Giacomin, 2014) and use of HCD in this project

<table>
<thead>
<tr>
<th>Meaning (Why)</th>
<th>To help immigrant children’s achievement, and welfare of the local community in a long-term plan (see Section 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semiotics, Communication and Discourse (How)</td>
<td>With the help of Information Design Principles (see Section 5.2)</td>
</tr>
<tr>
<td>Interactivity (When)</td>
<td>Parental meetings</td>
</tr>
<tr>
<td>Activities, Tasks and Functions (What)</td>
<td>To help parent-teacher communication</td>
</tr>
<tr>
<td>Human Factors (Who)</td>
<td>School Management Team, Turkish primary school teachers, immigrant parents, interpreter staff</td>
</tr>
</tbody>
</table>

The importance of this research can be an explanation for the ‘Meaning’ (see Section 1.1) while the principles of the Information Design can be useful for developing a solution (see Section 5.2), which can help integration of immigrant parents in Turkish schools. The human factors are not only immigrant parents and Turkish teachers, but also other staff related to this problem. The school management team can be advised to offer a guideline to reduce the language barriers between teachers and parents. In this case, interpreter services will be a crucial part of the solution.

5.2 Information Design

Information design is referred to as a ‘visual function’ which means avoiding confusions in daily lives by offering correct directions to people for having more comfortable daily experiences (for example, designing road maps in a clear way) (Peterson, 2002, Black et al., 2017). Recently, it has often been applied to deliver complex information in a clear way in various areas (Waller, 2011). There are some principles of Information Design which have been applied by designers to convey information clearly (for example, Gestalt principles). Such theoretical information has guided designers to generate the whole Information Design process. Besides this, there are practical ways to facilitate converting information to others. Although school managers tend to communicate with parents using written format documents, Information Design principles can be useful to convey information from school management team to immigrant parents clearly.

6 FACTORS CONTRIBUTING TO LANGUAGE BARRIERS BETWEEN THE TWO PARTIES

In this section, the parameters of the language barriers (Section 7.1), and their effects on immigrant parents-Turkish teachers are explained (Section 7.2).

6.1 Key factors should be considered within language barriers

Differences in communication types can create emotional barriers between people, as well as unfamiliarity with issues, and personal features of each individual (Zhong and Zhou, 2011; Kapur, 2018) - see the explanations below:

**Cultural differences in communication types:** Cultural differences are the diverse behaviours, beliefs, traditions, customs, and expressions that are characteristic to groups of people of a specific race, ethnicity or national origin (Moran et al., 2014: 11-15). Cultural differences between people can affect the mode of communication with each other (Moran et al., 2014: 38-66).

**Emotional barriers:** Kapur (2018) defines emotional barriers as positives and negatives which are happiness, anger, frustration, stress, depression, anxiety, trauma, and pride. Researchers have reported that emotional issues affect engagement among people. People can express themselves more efficiently when they feel comfortable. In contrast, when people feel highly stressed during conversations, they might not understand others well; they could miss some part of narratives, or they could misunderstand (ibid).

**Unfamiliarity with an issue:** Unfamiliarity with a subject has been defined as the fact of having no knowledge or experience of the area. Differences of understanding and definition for the same point are also part of this challenge. People struggle with understating issues when they are not familiar with the topic/phrases (Kai, 2005).
Personal features: Personal characteristics are aspects of personality, experience, talents, competences, and social status which could be used to describe a person (Subedi, 2020). Some features which could define a person include being calm, shy, outgoing, warm, practical, approachable, balanced, helpful, and kind. Such personal features are effective in social communications, for example, people could feel more comfortable to ask for help from people who are kind, and approachable. Similarly, outgoing people could express themselves more clearly compared to those who are low in self-confidence (Joinson, 2004).

6.2 Language barriers between the two parties, displaced and local communities-immigrant parents and Turkish primary school teachers

The Turkish context shows that language is the main reason behind parent-teacher communication in Turkish schools. Besides this, there are also other factors accompanying this problem due to emotional issues, cultural varieties, and being unfamiliar with the local education system (Akar and Erdoğdu, 2019; Tumkaya and Copur, 2020; Vesek, 2021) – see explanations below:

- **Emotional barriers between the parents and Turkish teachers:** Integrating Syrian immigrants presents a number of challenges to the local community. Following this, it can lead to immigrants not fully sharing their needs and feelings within the new community, and this can be more difficult when people hold different beliefs about each other, such as with immigrant parents and local teachers.

- **Cultural differences between Turks and Syrians:** There are a number of cultural differences between the two groups. For example, Syrians have traditional lifestyles where the power of authority is much more visible while Turks are more likely to be between modern and traditional lifestyles which could affect the method of communication between teachers and parents. In Türkiye, parents and teachers usually meet privately in order to co-operate for the existing problems. However, in traditional communities, teachers are more likely to hold power on themselves rather than co-operate with parents. Following this, they are not expected to carry out regular dialogues with teachers. Consequently, the immigrant parents may not know how to get in touch with teachers, and to know at what level to make contact. As a result, differences in communication styles between parents and teachers in the two countries could prevent effective communication between local teachers and the immigrant parents.

- **Unfamiliarity of Syrian parents with the Turkish education System:** Most countries have their unique education system (for example, acceptance to schools, evaluation criteria in exams, education terms and breaks, expectation from students and parents). With regard to this, the immigrant parents may not understand some of the local educational terms in a new country. Following this, integrating immigrants into the Turkish systems could be challenging for Syrians as well.

- **Personal features:** All individuals have different characteristic features, which may affect the method of communication. In this case, it may not be practical to differentiate personal features based on the two groups.

7 DISCUSSIONS

Although a school management team has the authority, management staff can help to manage language barriers effectively between immigrant parents and local teachers. Therefore, a guideline for management teams can be beneficial to manage the situation. HCD and Information Design principles can help design the guideline (see Section 5.1 and 5.2) which can be developed based on the key factors accompanying language barriers between the two parties (see Section 7). In this case, emotional barriers between the teachers and parents, cultural differences between local and host communities, and unfamiliarity of being the local education system need to be considered. However, each person has unique personalities; therefore, considering personal features of each may not be possible—see Table 5.

<table>
<thead>
<tr>
<th>Key factors</th>
<th>Explanations</th>
<th>Inclusion/Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional barriers</td>
<td>The Turkish context shows that Syrian parents hesitate to communicate with local teachers which may result in emotional barriers that can prevent effective parent-teacher communication. Following this, resolving emotional barriers between the two parties can help reduce language barriers, and efficient parent-teacher communication.</td>
<td>Included</td>
</tr>
<tr>
<td>Cultural differences in communication</td>
<td>It has been reported that cultural differences between the two groups causes problems for the immigrant parents. In this case, resolving cultural barriers can help parent teacher communication. Following this, explaining the mode of parent-teacher</td>
<td>Included</td>
</tr>
<tr>
<td>Types between Turks and Syrians</td>
<td>Communication in Turkish education system can be beneficial in terms of reducing language barriers due to cultural differences.</td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Unfamiliarity of Syrian parents with the Turkish education System</td>
<td>Unfamiliarity with the Turkish education system has been reported as one of the problems preventing parental involvement. In this case, delivering information to the parents about the Turkish education system and scope of parental meetings can be helpful.</td>
<td></td>
</tr>
<tr>
<td>Personal features</td>
<td>Although individuals have different characteristic features which may affect the method of communication, it is not useful or practical to consider people's own characteristic features in a scientific study.</td>
<td></td>
</tr>
</tbody>
</table>

8 CONCLUSION & FUTURE STUDIES

The language barrier is the most important problem for immigrant parents in Türkiye. The parents cannot be involved in the education of their children, which is highly important for their success. Besides language problems, emotional issues between teachers and parents, cultural differences between the two groups, and unfamiliarity of the Turkish education system also accompany language barriers. It has been declared that Human-Centred Design and Information Design principles can help with this problem. While Human Centred-Design principles can help framing this research, Information Design can be used in a solution phase to convey information clearly. A guideline for Turkish primary school management team can be generated based on the key factors contributing to language barriers with the help of Information Design principles. The guideline could help management teams provide a clear direction to interpreter staff, local teachers and immigrant parents in order to reduce language barriers and involve immigrant parents in local education areas. The factors identified through the literature review and case studies will be investigated further through suitable primary research. In this way, the researcher can confirm and prioritise them accordingly.

REFERENCES