41 Turkey: I am special, I am in education

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Website: https://www.meb.gov.tr/ozel-cocuklara-ozel-ilgi-gosteren-mobil-uygulama/haber/20785/tr | Özelim Eğitimdeyim on google play | Özelim Eğitimdeyim on App store

General description

At the outset of the COVID-19 crisis, the Turkish Ministry of National Education established a series of policy actions to maintain educational services and meet the wider needs of the society as a whole. When schools closed on 17 March 2020, Turkey could rely on a strengthened distance education environment to provide teachers, students and parents with an extensive variety of solutions for pedagogical continuity. The deployed solutions immediately covered all classes from primary to secondary education (including vocational education and training) and partly consisted of a package of academic, social and psychological support delivered through online teaching, radio, TV broadcast (e.g. TRT Okul) and telephone (Özer, M., 2020[1]).

As early as 23 March 2020, Turkey was able to provide distance education nationwide to its 18 million students through the Educational Information Network (EBA), the country's official platform for online education. Supported by Turkey's top three mobile operators that offered all students 8 gigabytes of free data, 12 million K-12 students and 900 000 teachers could immediately access the 1 600 lessons and 20 000 interactive contents curated on the platform, making it the second largest state-owned platform for online education at that time, behind the People's Republic of China's. The EBA has served as a generic hub for distance learning, as it hosted several TV programmes, integrated psychological support centres

and allowed up to 2.7 million users to hold virtual classrooms at the same time. In June 2020, Turkey further invested in a project on Safe Schooling and Distance Education with support from the World Bank. This longer term strategy will notably finance the development and roll-out of a New Digital Education System and the expansion of the EBA, as the aim is to enhance the capacity, reach and resilience of Turkey's education system during and beyond the COVID-19 pandemic and future shocks.

As part of this multimodal toolkit to mitigate school closures, the Turkish Ministry of National Education has developed a mobile application to support the participation of students with special needs in distance education. Called Özelim Eğitimdeyim (I am special, I am in education), the application essentially consists of a mobile adaptation of the generic EBA platform specifically designed for students with all sorts of special needs, from learning difficulties through to sensory and cognitive impairments.

The I am special, I am in education application provides an intuitive portal for students with special needs and their families to access the hundreds of educational resources, activities, videos and lessons that have been prepared and uploaded to the EBA platform mostly before, but also during, the pandemic. It works as a bridge for people who would otherwise be left out of the usual distance education solutions as they sometimes neglect visual or hearing impairments, assume learners' autonomy, and only rarely put interaction and personalisation at the core of their learning strategy. Because its development mainly consisted of redeploying existing resources, the implementation of the application was particularly cost-effective.

The application has the following functionalities:

- Providing easy access to the curated subset of learning resources available on the national EBA platform that was designed or is appropriate for students with different types of special needs.
- Giving access to specific resources for parents and caregivers to support their children with special needs; for example, guidance and training to help them set up an appropriate environment for home-based teaching and learning, or a calendar helping them structure their children's learning activities over time.
- Providing technical functionalities and services as well as following standards for the selected resources to make them appropriate for different types of impairments (for example loud text reading from screen, sign language, dyslexia-friendly fonts, etc.).
- Providing interoperability with major external technology devices supporting children with special needs, so the learning resources can also be used on those devices.
- Embedding a social network for users (students, parents, teachers), allowing them to upload homemade creations (images, videos and learning activities) and share them publicly with the application user community.

The ministry started to develop the application one week before schools closed in Turkey, and it took only three weeks to make it available free of charge on Google Play and Apple Store. Within the first two weeks of deployment, the number of special education resources channelled from the EBA platform to students with special needs at home had doubled. As of September 2020, the application had been downloaded over 350 000 times across Turkey and counted 117 000 active users.

Main problems addressed

The application explicitly aimed to ensure education continuity for students with special needs, whether they were enrolled in schools or not. Those students faced some specific problems:

- ***Education discontinuity*** when they either normally attend a public school but have special needs or attend a special education school.
- ***Social and psychological distress*** for some of those students and their family in the face of the pandemic and the entailing social crisis.
- ***Limitations of the generic solution of distance education*** (web platform, TV, radio) for people with special needs, most evidently when they are physically impaired (deafness or blindness for instance) or when they suffer from troubles such as autism, dyspraxia or attention deficit.

In essence, the application aims at inclusiveness at a time when school closures were likely more detrimental to students with special needs (or from disadvantaged backgrounds or deprived areas), effectively increasing the equity gap in education. Education for students with special needs is a process that continues largely beyond schools, often at home in day-to-day life. The application thus provided video training to support the relatives of students with special needs and all bound to spend time with them during the lockdown, including medical assistants or caregivers.

In Turkey, special education teachers working for the public sector have to prepare annual lesson plans for each student with special needs. Thanks to the application, they could follow the yearly planning and monitor their students' development during and after school buildings closed.

Mobilising and developing resources

The government initiative mostly built on specific educational resources that pre-dated the health crisis. Before the pandemic, the Turkish Ministry for National Education, in co-operation with non-governmental institutions and foundations for disabled people, had made a variety of learning resources available for special education on the EBA portal, Turkey's official platform for distance education. These resources consisted of video recordings of courses taught in special education schools, educational activities and games created by teachers in those schools, or simply traditional learning materials targeting students with special needs.

The initiative mostly developed the mobile application itself, and mobilised existing resources to suit the special needs of its users, including some new adaptations and developments.

A governmental team of 237 experts, academics and civil society members worked under the guidance of the Turkish Ministry of National Education's Department of Programmes and Teaching Materials to develop the I am special, I am in education application. Their objectives were twofold:

1. gather all special education contents under one roof
2. ensure the highest accessibility and usability for each different group of people with special needs and talents.

In total, the experts gathered around 400 education activities prepared in diverse disciplines to target different audiences. Among them are 19 education programmes for students with different levels of autism, 97 video trainings for special talents students, 51 audiobooks for visually impaired students, 17 external educational mobile applications, 11 stories in sign language, 35 audio description stories, and dozens of videos accessible targeting tutors and relatives.

Mobilising a variety of relevant special education resources was only half of the development work for the Ministry of National Education. In a second phase, all efforts were directed towards making those resources accessible and usable by all app users, regardless of their disabilities. These efforts led the ministry's Development Unit to implement innovative contents and features that targeted, but were not limited to, the following special needs:

- ***Visually impaired students:*** the app embeds a technical architecture that is fit for screen-reading programmes and other external devices dedicated to the reading out loud of digital text, and includes audiobooks and textbooks used to teach visually impaired students in school.
- ***Hearing impaired students*****:** most curated contents include sign language and the app proposes additional learning resources on Turkish sign language.
- ***Cognitively impaired students*****:** a sample of activities are designed to be conducted at home for children with mild to moderate through to severe mental disabilities.
- ***Individuals with autism spectrum disorder*****:** appropriate activities are available for students with a low to high level of autism.
- ***Individuals with special talents*****:** practical presentations of educational and social development contents were added at their intention.
- ***Individuals with attention deficit and hyperactivity disorder, Down syndrome, dyspraxia, etc.***

From learning difficulties through to sensory and cognitive impairments, the application also aimed to allow a good level of autonomous use for students with special needs. As students were locked down at home and thus often on their own, priority was given to create an interface that was appealing, fluid, easy to use and functional for all students, despite the likely absence of their tutors or teachers.

Fostering effective use and learning

Turkey's strategy was to extend its distance education solutions to all Turkish students, including those with special education needs. To that end, the I am special, I am in education application was geared to ensure maximum engagement not only from these students, but also from their families and caregivers.

Evidence has shown that students with special needs are not only more vulnerable in times of crisis, but also less reachable (ECW, 2020[2]). In addition, students with special needs, by essence, do not form a united body: it is precisely the variety of impairments and disabilities that makes special education so specific to each individual.

The challenge was thus to adapt the application and its content to replicate learning conditions that are usual for students with special needs and put interactivity and personalisation at the centre of their teaching and learning strategy.

To ensure effective use and learning for all users, the application was designed not merely as a content repository, but also as a potential daily companion for students with special needs and, perhaps as importantly, for their caregivers. Indeed, depending on the targeted needs, an app intended for children with special needs must include their parents and tutors in the process. To that end, a few sections of the application are entirely dedicated to caregivers, as they provide clear communication, guidance and instruction on how to have their children engage with the app's content at home. For instance, the calendar and events sections were designed to help families set up an appropriate environment for home-based teaching and learning. As students with special needs often thrive more with structure and routines, the application incentivises parents and teachers to work together at establishing home learning activities that resemble the school day.

As much as fostering effective use partly consists in engaging students' caregivers with the app resources, fostering effective learning goes beyond this engagement. Many of the learning resources had initially been designed to be used and taught in-person by expert teachers in dedicated schools. Fostering effective learning translated into adapting these special resources for online learning and physical distance. The ministry's team tried to overcome those barriers through its curation and by implementing the series of innovative features that address the variety of special needs of their targeted users. In addition to those content features, several technical characteristics distinguish the application from other applications hosting online learning resources, such as a content size editor, a system of bridges between educational units or the user message network.

One feature that has been particularly appreciated by the app users is the data entry panel. This panel offers users the possibility of uploading content directly to the application and sharing it with other users. Very quickly, teachers, students and their family started to publish pictures, videos and activity materials that they prepared at home. All this homemade content, hosted on the ministry's servers, is published in the "From you" section of the application and made publicly available. Combined with continuous feedback from the user community, this iterative loop of resources has enriched the user experience over the weeks as it responded to both the supply and demand of people with special needs, and attracted more users to the application.

Implementation challenges

Gathering a team of experts, mobilising the appropriate resources and developing the application were demanding tasks, but they were seamlessly overcome thanks to consistent support from Turkey's Ministry of National Education, trust among stakeholders and strong human competence on those topics.

Once the application was released, reaching students with special needs at home became the most challenging part of the implementation.

Students with special needs do not always fall on the radar of traditional schooling. Although a share of them are enrolled in public schools, many others are enrolled in special private schools or benefit from home-based education.

To mitigate this issue and foster a large take-up among all students and their families, the Ministry of National Education promoted the application through various channels as soon as it was approved by mobile application platforms (Google Play and Apple Store). Public and private institutions involved in education for kids with special needs were officially notified of the app release, so were all potential users (students, parents and teachers) of the generic EBA platform – Turkey's official platform for distance education – efficiently targeting those with special education needs.

On 25 April, Ziya Selçuk, Turkey's Minister of National Education, presented the application to the public. Several other ministry officials followed on via interviews on national TV channels and state advertisement on the Internet. On Twitter, the hashtag #ÖzelimEğitimdeyim generated thousands of interactions (tweets, retweets and likes), echoing the immediate surge in the number of app downloads across the country.

Since then, the Ministry of National Education has appointed five staff to work full time on the application maintenance. They are in charge of addressing the day-to-day technical and conceptual problems that emerge given that the initiative has been implemented at a national scale.

Monitoring success

One week after the Turkish government started to communicate about it, the application had been downloaded 150 000 times, free of charge. This figure grew to reach 353 000 downloads as of September 2020. The application received 335 reviews averaging a 4.6/5 rating on Google Play and a 4.5/5 rating from 165 reviews on Apple Store.

Considering that there are around 2 million people in Turkey listed with all sorts of sensory or cognitive impairments and disabilities, the government set itself a medium-term objective of 500 000 downloads.

As of September 2020, the application counted 117 000 active users. Anyone with an Android or Apple device (mobile, tablet, computer) can download the application and access its full content for free, even if they are not based in Turkey – although all navigation menus and resources are presented in Turkish.

Adaptability to new contexts

The I am special, I am in education application has several assets that make it potentially scalable and sustainable regardless of the response to school closures.

International replicability

Turkey's initiative consists of a mobile application designed to improve access to certain education resources to individuals with all sorts of special needs. Provided that such resources are available or developed, all it needs to operate is a mobile device and a decent Internet connection.

Foreign developers can draw from Turkey's application to replicate its innovative architecture and features to suit the needs of people with various types of sensory and cognitive impairments.

Whether they predate the COVID-19 crisis or whether it was a response to school closures, an increasing number of countries now curate an ever-increasing number of education resources on line. While generic platforms for distance education make these contents accessible to most students at home, special education resources need special attention, especially during lockdown periods. Applications replicating the purpose and design of Turkey's initiative could help mitigate this equity problem for a very reasonable cost and time investment.

Sustainability beyond the COVID-19 crisis

Six months after its release and even though schools started to reopen, the application still counted 117 000 active users across Turkey, with thousands of new downloads every week. It is probable that the application will continue to grow, as new sections and content continue to be added and adapted for mobile devices.

On the one hand, schools might soon close again if there is a resurgence of infections, thus reinforcing the need to provide distance education to every student in the country. On the other hand, the application can also be sustained as a lasting supplement to education for students with special needs.

Because education, and in particular special education, does not stop at the classroom door, the I am special, I am in education initiative could set a transformative trend for the inclusion of students with special needs in (distance) education. The application now runs at a low cost and benefits from extensive support and trust within and beyond education systems, so it could, in principle, continue to thrive in the coming months and years.

Box 41.1. Key points to keep in mind for a successful adaptation

1. Build on existing infrastructures and resources to facilitate the application development. If possible, and if relevant, make use of government's capacity to deal with legal issues, build trust among stakeholders and mobilise existing resources.
2. Involve a multifaceted team of experts comprising educational experts, developers, academics, ministry officials and civil society members to produce the right output for the right audience.
3. Collect, prepare and curate resources taking a user perspective at all stages of the process.
4. Convert and adapt existing resources rather than creating new ones. The wealth of quality education resources curated on line has skyrocketed in the past months, and was often already abundant before schools closed. Gear your efforts to give priority to inclusive delivery rather than piling up content.
5. Design an application that can be accessed, navigated and effectively used by individuals with all sorts of impairments. To that end, collaborate with teachers and education experts for students with special needs to propose an exhaustive list of technical features that allow for the largest possible engagement and take-up through one complete application rather than several specific platforms.
6. Engage parents and caretakers to ensure effective use and learning. Provide them with clear guidance as to how they can set up an appropriate learning environment at home, ideally one that replicates the school day.
7. Promote the application through official communications and advertise its release to all relevant public and private institutions to foster a wide and rapid adoption across your territory when people have to stay at home.
8. Leave room for collective appropriation of the tool. Allow users (students, parents and teachers) to exchange with each other and upload homemade contents publicly for the benefit of all.
9. Provide maintenance services to ensure a scalable and lasting experience for users.

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References

ECW (2020), *The Fierce Urgency of Now!: Education in Emergency Response to COVID-19*, Education Cannot Wait (ECW) Policy Reports, https://www.educationcannotwait.org/download/covid-19. [2]

Özer, M. (2020), "Educational policy actions by the Ministry of National Education in the times of COVID 19 pandemic in Turkey", *Kastamonu Eğitim Dergisi*, Vol. 28/3, pp. 1124-1129, https://dx.doi.org/10.24106/kefdergi.722280. [1]