

How people with Dyslexia perceive the letters...

# DySLexia

**We understand you.**

While it is very difficult for you, others can do it so easily. You work much harder, but still you cannot do as well as others, and this situation repeats every single day...

Meanwhile people around you ask

“How is the school going?”

Don't worry!

We are and will always be with you...



The app will be launched in July, 2020

## Executive Summary

**Team Members:** Dilara Işık and Senem Işık

**Business Name:** DySlexia

**Team Name:** DyS+ (*D for Dilara and S for Senem*)

**Business Type:** Social Enterprise

**Mobile App Name:** LEXIA

**Business Location:** Istanbul, Turkey

### Reading is complex.



It requires our brains to correctly recognize letters graphically, connect them to sounds, put those sounds in the right order, and pull the words together into sentences and paragraphs we can read and comprehend. Each year, 1,630,000 students start 1<sup>st</sup> grade in Turkey. 130,000 of them (8%) need special education including children with Dyslexia, ADHD etc.<sup>1</sup> and the global situation is similar. Their academic challenges begin with learning the alphabet, the most important necessity of their primary school journey. However, they do not have proper resources to support their personal education needs. Upon our online surveys with Turkish Dyslexia Foundation for parents using the Empathy Map model, we concluded that conscious parents who are in search for effective tools to compensate the lack of specialized assistance for their children make up 20% (26,000) of families.

*Dyslexia* is a neurogenic special learning disorder involving difficulty in reading fluently, recognizing, analyzing and spelling letters and words correctly despite the high creativity and strong reasoning abilities of the individual due to the failure of the brain to process the information.

Dyslexic people tend to exhibit unsocial and marginalized behaviors in social environments, and they tend to be more anxious, depressed, sensitive and resentful. If Dyslexic individuals are not directed and provided a special education, experiencing failures in academic settings repeatedly leads to the cognitive death of the student. 40% of students with Dyslexia aged 7-18 consider their school years as a devastating experience. In early ages, they lose their self-confidence and self-respect, but most importantly, they lose their motivation to learn. It becomes impossible to teach them anything. For dyslexic people, the rate of committing suicide is 3 times and the rate of dropping out of school and committing crimes are 6 times higher than the average in the world.

However, with the right support and diagnosis of their talents,  
Dyslexic individuals can become highly successful.

### Our Solution

We, Dilara Işık, the **Programmer and Product Designer**, and Senem Işık, **Financial, Marketing and Development Officer** of **DySlexia**, had been volunteering at **Turkish Dyslexia Foundation** for over three years. Due to our close interaction with Dyslexic children and their parents, we were extremely aware of their special education needs and experienced in effectively using different tools and methods for their education. Thereby, we decided to collaboratively develop a technological solution that can help them to learn on their own remotely. We took courses from edX to learn how to use App Inventor, followed the model of Stanford d.school K12 Lab's framework to use user-centered design and created our app, LEXIA. When the global education system was transferred to online platforms due to global Covid-19 pandemic, we realized that the need for an edutainment mobile app like LEXIA was even more necessary than ever. DySlexia is going to contribute achieving UN Sustainable Development Goals, **Quality Education** and **Reduced Inequality** as basic human needs and rights, and ensuring social needs of people with specialized education needs such as acceptance by others, respect, and friendship.

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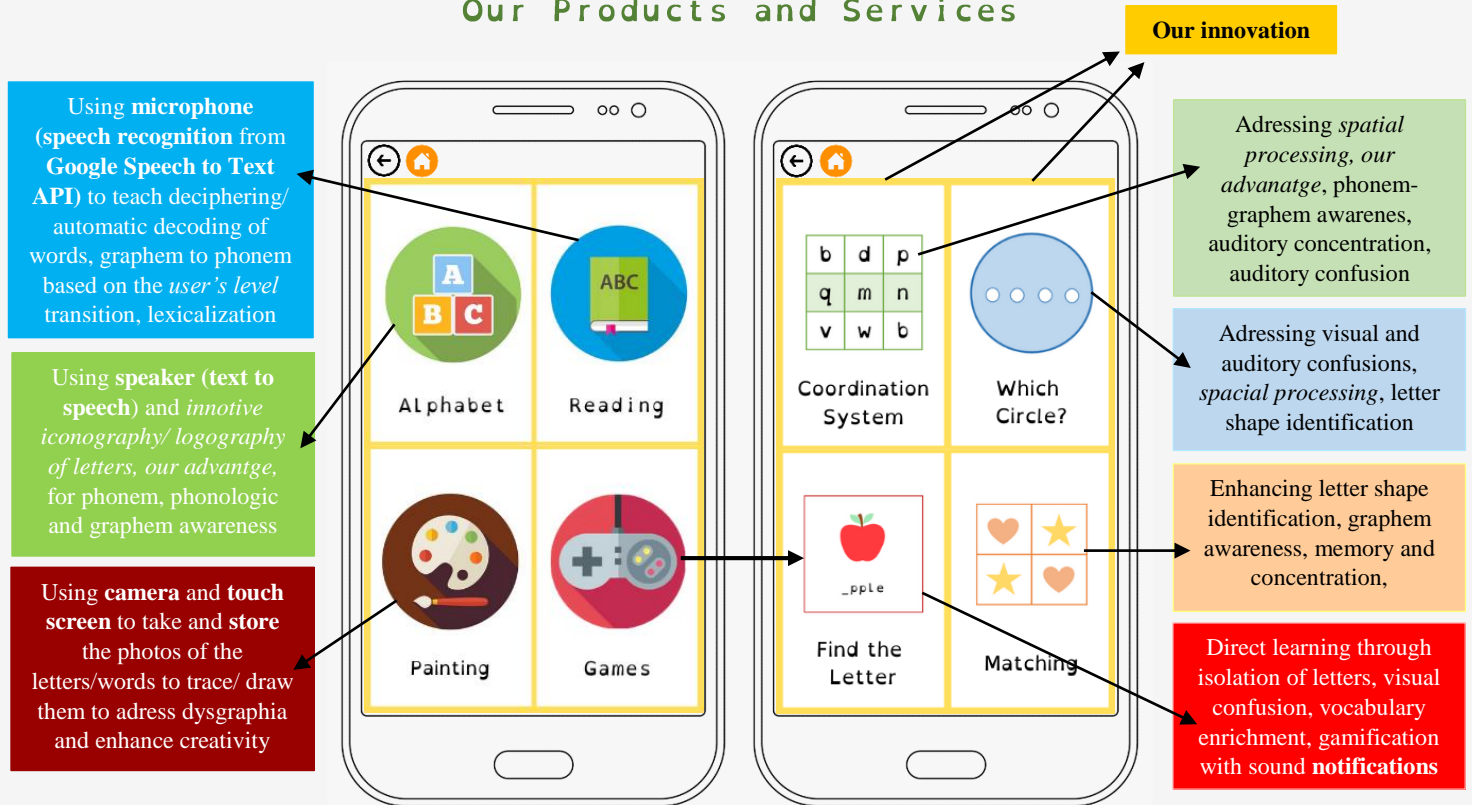
<sup>1</sup> Data from Turkish Ministry of Education

## Company Description

**Our Mission:** To decrease the rate of school drop-outs of Dyslexic children because of being marginalized and not adapting to the social and academic environment and to reintegrate these people back to the society.

**Our Vision:** To equip and support children with Dyslexia with **edutainment** tools using technology to address their specific educational needs and empower them to learn **remotely**.

## Our Products and Services



In the first screen, using TinyDB for local database, the user can add letters they learnt to a list, which will be saved and used for feedback.

## Future Strategies based on Extensive Market Analysis

TOWS Analysis	Opportunities (external, positive)	Threats (external, negative)
<b>Strengths (internal, positive)</b>	New graphic designs for adapting our iconography to different alphabets	Features related to Dysgraphia, Dyscalculia, and Dyspraxia
<b>Weaknesses (internal, negative)</b>	Providing all services in other languages. Using <b>Artificial Intelligence</b> to translate texts to sound for lexicalization and automatic decoding	Further <b>gamification</b> Development Testing and Parental Recommendation

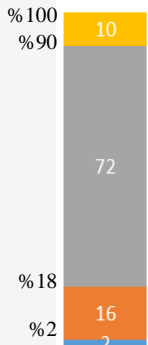
**Immediate Future Plans:** New graphic designs for adapting our iconography to Turkish and Russian.



## Market Analysis

### Customer Research

In cooperation with the experts at **Turkish Dyslexia Foundation** and from the training we had by **Google Play Academy for Kids-Friendly App Success**, we created a framework of factors that can contribute to a high-quality app for preschoolers and primary school Dyslexic children and implemented **User Centered Design** in the building process of LEXIA. Once we had the **Minimum Viable Product**, we tested our app with Dyslexic children at Dyslexia Foundation. %100 of them said that they had never seen **Coordination System** and **Which Circle?** games before, as they were our *own innovations*.



We also tested our app in a pre-school called **3 Apples Kindergarten** in Istanbul with non-dyslexic children from many nationalities. We observed that the funny narrative we used with innovative and original design of the letters made the children smile and the delightful sound notifications encouraged them to play the games more. **80%** of them said that they would want use our app regularly and **50%** of them mentioned LEXIA to their parents. On our one-to-one interviews and online surveys for 458 parents, **%90** were willing to download apps in general, but **20%** of them were making purchases (**18%** of the total surveyed), preferring apps with in trend characters (eg. Frozen and Lightning McQueen). **10%** of these parents (**2%** of the total surveyed) were willing to pay **1.50\$** for in-app purchases on average.

Upon our costumer research, we made DySlexia a *social enterprise* that is aiming to provide *free* educational assistance to our target group, Dyslexic children, with the profit generated by also selling our services to non-dyslexic pre-school children.

### Competitor Analysis

We analyzed 8 most downloaded apps for Dyslexia on Google Play Store based on the framework we created as shown by the table on the right. From this data, we concluded that we have the *opportunity* to be the most effective app to **graphically teach the letters** in the market due to our *fundamentally new idea of teaching letters with original illustrations*. Additionally, if we gamify our activities and add language options, we can have even greater *advantage* over our competitors. Furthermore, to make our app holistic, we are planning to test the children and inform parents about their development as our **future feature**.

3 = good 2 = average 1 = poor Blue = Our Strengths Green = Future opportunity for R&D Red = Our Weaknesses	Eye Games	Dyslexia.ai	Augmentally	Specify	Reversals	Learn Letters	Dyslexia Test	Dislexi (Turkish)	LEXIA
Free (F) / Paid (P)	P	P	F	P	F	F	F	P	P
“Designed for Families” Badge	-	+	-	-	+	-	-	+	+
Appropriate Kids Content	+	+	-	-	+	+	+	+	+
Education Category	+	+	+	+	+	+	+	+	+
Iconography to Code Letters	1	1	1	1	1	1	1	1	3
Teaching letters with graphics	1	2	1	1	2	2	1	2	3
Addressing phonological awareness	1	3	3	3	2	2	2	3	3
Solving visual confusions	3	3	3	3	3	2	2	3	3
Solving auditory confusions	1	3	3	3	2	2	2	3	3
Addressing pronunciation	1	3	3	3	2	2	2	3	3
Games for space orientation with letters	3	2	1	1	1	1	1	3	3
Dyslexia-friendly design (specific font, legible and limited text, colors etc.)	1	2	3	1	2	1	1	2	3
Encouraging creativity	2	3	1	1	2	1	1	2	3
Intuitive User Interface	2	2	2	2	3	2	1	2	3
Popular topics for Kids	3	3	1	1	2	2	1	2	3
Language Options	1	1	1	1	1	1	1	1	1
Development Testing	1	1	1	1	1	1	3	1	1
Gamification	2	3	1	1	2	1	1	2	1
<b>Total</b>	<b>23</b>	<b>32</b>	<b>25</b>	<b>23</b>	<b>26</b>	<b>21</b>	<b>20</b>	<b>30</b>	<b>36</b>

## Our Strategy and Implementation for Marketing

### Branding

The word *dyslexia* comes from the Greek words *dys*, meaning difficulty, and *lexia*, meaning language. Therefore, eliminating the word *dys* to overcome the difficulty, we made our app's name **LEXIA**. Our app's identity should feel *friendly* and *understanding* to children. That's why we designed our logo, splash screen, menu, illustrations etc. colorful to appeal and look *friendly* to them.

**Our motto: We understand you.**

**Our position statement:** *For children struggling with learning the letters, LEXIA is the friendliest among all education apps thanks to its memorable letters in the shape of cute illustrations.*

### User Centered Product Design

To make our stylistic features Dyslexia friendly and show *understanding*, we used a special font called **Open Dyslexia** that has ideal width, size for and spacing between characters and words to achieve simplicity. We used a pastel color such as off-white, as this is the most preferred background color by Dyslexic children while reading. We created a consistent structure for an **Intuitive User Interface**, avoided long and dense explanations, ensured sufficient contrast levels between background and text, used clear and large buttons, and most importantly, effectively used iconography to support each text and letter. For example, we coded the letter **A** with the image of **Alligator** to make the children remember the letter permanently. In accordance with the **feedback** from our **target users**, as adds can be distracting for the children and their parents considered most adds as inappropriate and risky content on our survey, LEXIA will be a **freemium** app making profit from **\$ 1.50 in-app purchases per one-year subscription**.



#### Word of Mouth

We are giving presentations in kindergartens and special education centers. Our biggest influencer is **Turkish Dyslexia Foundation**. We know from the parents that they trust their experts' recommendations to know what is beneficial, enriching and fun for their children. In collaboration with other NGOs, Turkish Dyslexia Foundation will advertise our app in their regional **Academies for Parents** in every city and promote our app at every presentation and seminar they give.

#### Social Media

We have created **website, Facebook and Instagram** accounts. We started actively sharing stories, posting promotions, creating games with our illustrations. One of our biggest influencers is the **Instagram accounts of famous mothers**. They liked our services so much that they also promoted our app as shown by a fun letter activity and age survey on the Instagram story above.



@dys.\_lexia

### Reaching Out

#### Media Advertising

Turkish Dyslexia Foundation and other NGOs are going to share our advertisement on their website and publish it on their monthly magazines. Some of their ambassadors can advertise our app in the local newspapers for free in their regions. We are also going to distribute the brochures and flyers through various school events, education seminars, parent meetings etc. The design of these is inspired by the cover of this business plan.

#### Promotion on Stores

We are going to create a strong description on Google Play Store as well as on App Store, using key words for parents, uploading attractive screenshots, and requesting our followers to share reviews for our app. We are developing our app to be eligible for **Teacher Approved badge** to be a high-rated app on the **Kids Section**, so that LEXIA features on banners and collections of **Google Play Store** and is eligible for **PlayPass**.



## Financial Plan

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Startup Capital from Crowdfunding</b>	\$7560 (in exchange for free downloads)	-	-	-	-
<b>Revenue from In-app purchases</b>	-	\$12600	\$22680	\$42000	\$83300
<b>Total</b>	\$7224	\$7899	\$10899	\$17398	\$24899
<b>Operating Costs</b>					
Equipment	(given by Dyslexia Foundation)	-	\$2000 (computer)	-	\$4000
Software Program	\$200	\$200	\$200	\$200	\$200
Utilities (phone & internet bill)	\$170	\$300	\$300	\$300	\$300
App Store fee (\$99) Google Play Store (\$25)	\$124	\$99	\$99	\$99	\$99
Marketing	\$750	\$1300	\$2300	\$4200	\$8300
Employee Salaries (Developer and Designer)	\$6000	\$6000	\$6000	\$12000	\$12000
<b>Total Profit</b>	<b>\$336</b>	<b>\$4701</b>	<b>\$11781</b>	<b>\$24602</b>	<b>\$58401</b>

The App Stores will deduct 30% of our *affordable* app price \$1.50 as the service fee. Thus, we will get  $\$1.50 \times 0.70 = \$1.05$  from each in-app purchase. We are planning to spent 10% of our revenue for marketing each year. Furthermore, we are going to hire a professional designer to create special illustrations for letters in different languages and a app developer to get technical support to build future features to gain more customers.

1<sup>st</sup>  
Year

**Turkish Dyslexia Foundation** and other NGOs are going to **crowdfund** for us in their large network in exchange for free provision of in-app purchases of Lexia to children. They promised us to reach out 7200 families that can support us in the first year. Therefore, our revenue from crowdfunding will be  $7200 \times \$1.05 = \$7560$ .

2<sup>nd</sup>  
Year

We will gain ground in other markets using **Latin Alphabet** and **Cyrillic Alphabet** such as CIS countries. In our local market, we will reach out to non-dyslexic children.

3<sup>rd</sup> & 4<sup>th</sup>  
Year

We are planning to grow into global markets, as our app will able to teach letters to children all over the world in their mother language as well as foreign languages.

5<sup>th</sup>  
Year

As also a holistic app preferred by pre-school parents, we are projecting to cover the full potential of our **local Turkish market** and continue to expand in **global market** within five years.

Each year, 130,000 students with special education need start 1<sup>st</sup> grade and there are 1,630,000 preschoolers in Turkey. In accordance with our market research, our revenue from our local market will be

$$((130,000 \times 0.20) + (1,630,000 \times 0.90 \times 0.20 \times 0.10)) \times \$1.05 = \$58107.$$

Our goal is to reach at least 2000 sales per month from our global expansion. Thus, our revenue from other markets will be  $24000 \times \$1.05 = \$25200$ .

Thanks to Turkish Dyslexia Foundation, we contacted NGOs in other countries for getting support to expand to global markets. We also contacted professional App Developers in Turkey who designed successful apps for global markets and took their opinion about our Business Plan for benchmarking our app. They found our Goals and Financial Expectations for LEXIA realistic.

With the profit generated,  
**DySlexia** is going to continue supporting Dyslexic children  
by providing access to new technological tools that empowers them  
to excel in their academic journey, and in life.

We aim to democratize dyslexia support, so that every dyslexic child is understood and  
given the right support to realize their brilliant potential.

**We understand you.**

**We have a solution for you!**



The app will  
be launched  
in July, 2020.

**JOIN US**

To be **DySlexia** social media influencer, volunteer, regional ambassador, *or to make gifts,*

**Please contact us:**



**@dys.\_.lexia**

## **MADE BY DYSLEXIA PLEDGE**

### **We will endeavour to:**

- Recognise** dyslexia as a different and valuable way of thinking.
- Understand** the importance of identifying each dyslexic and their pattern of strengths and challenges.
- Support** which is targeted to enable dyslexics to harness their strengths and flourish.

### **We'll achieve this through:**

- Knowledge** skilling up staff in schools and workplaces to recognise, understand and support dyslexia.
- Discover** using digital screeners which make it easy and cost effective to check if you're dyslexic.
- Adjustments** in tests and assignments so dyslexics can demonstrate their full knowledge and skills.

**DySlexia**