Hi, I'm Judit Kormos and I do research on the effects of dyslexia on foreign language learning. In this talk I'm going to give you an overview on what dyslexia is and how it affects foreign language learning processes.

Let me start with a visual metaphor of how it feels to be dyslexic. In a recent YouTube video, the dyslexia group gave the following description of what dyslexic students experience when they are learning to read.

"Learning to read for dyslexics is like running a race where only the dyslexic students have invisible hurdles on the track. The others complete the race easily and quickly while the dyslexic students fall when they first hit the hurdles. As the hurdles cannot be seen, nobody understands why they fall. And all those standing by can say is try harder. The dyslexic runners can only succeed if someone notices the hurdles and teaches them how to jump over them."

This metaphor of invisible hurdles is very useful to help us understand the effect of dyslexia on learning another language. So what is dyslexia and what are the hurdles these students need to jump over?

The origin of the term dyslexia suggests that it is a difficulty associated with reading. In fact, most definitions describe dyslexia as a difficulty with accurate and fluent word recognition.

These definitions also add that dyslexia can cause difficulties with spelling and processing spoken information. Therefore, dyslexia is not just a difficulty in reading, but it also has an effect on other aspects of producing and using language. It is easy to see that if dyslexia has such wide ranging effects on various areas of language, it is going to influence not only students' academic progress and performance, but also other areas of life.

What causes dyslexia? In other words, why are the hurdles there on the track in the first place?

Most recent research suggests there are neurobiological origins of dyslexia and it is often inherited. Dyslexic students process verbal information differently from those who do not have dyslexia.

First of all, they have shorter memory spans when it comes to processing language input. Have you tried to remember a long telephone number? In order not to forget the number, you have to keep the
digits in your working memory and keep rehearsing them before you write them down.

The number of units you can store is your working memory capacity. For dyslexic students, this store can only hold fewer numbers. This has wide ranging effects on learning in general because students can remember fewer pieces of information at a time, whether it be instructions, how to carry out tasks, or new words in a language.

We do not only rely on working memory when we process incoming language, but also when we carry out other cognitive tasks. Think about mathematical operations, for example.

If you do mental arithmetics, you need to keep all the intermediary results of the calculation in your working memory to arrive at the right sum. In a similar fashion, working memory is needed to manipulate pieces of language simultaneously. This explains why it is often difficult for dyslexic students to put a sentence together in another language, and to pay attention to grammar, vocabulary, and pronunciation at the same time.

In addition to lower working memory capacity, another hurdle for dyslexic students is what is called reduced phonemic awareness. These students often have difficulties perceiving subtle differences between sounds-- such as long and short vowels-- and learning sound letter associations. This causes difficulties in reading and spelling both in their first language and in foreign language learning.

Some other important questions we need to ask are how many students have dyslexia and how should we conceptualise dyslexia as language teachers? Dyslexia is quite common. And regardless of geographical region and socioeconomic status, it affects about one in 10 people.

This means that in every language class of 20 students, you're likely to find two students-- at least-- who have dyslexia related difficulties. This is a high number and it shows how important it is that language teachers know about dyslexia and how to assist dyslexic students in the classroom.

As I already mentioned, dyslexia can have potential effects on wide areas of academic performance and everyday life. And this is not only because of the underlying cognitive causes. Dyslexia is one of the manifestations of what is called specific learning differences.

And here I would like to highlight the term learning difference. Dyslexia should not be seen as a disability that hinders people in their daily life, but as a difference in acquiring new knowledge and skills.
These students can learn successfully. And to return to our metaphor of the hurdle race, they can reach the finish line, but they do it differently from others.

Hence, they will need adjustments in the teaching process and the environment, and assistance in developing efficient strategies. In other words, they need to be taught how to jump over to hurdles. Often, maybe the running track needs to be shortened, or their speed needs to be slower.

It's also important to understand that dyslexia is one type of learning difference. And as such, it is frequently associated with difficulties in attention control and shorter attention span, as well as other learning differences. Such as dyscalculia-- which is difficulties with mathematical skills-- and dyspraxia-- which is a learning difference related to problems with fine motor skills.

Related to this, we also need to note that students who are identified as dyslexic can be very different in their strengths and weaknesses. This is because dyslexia can cause different types of difficulties. And also, these difficulties can vary in terms of how serious they are.

Therefore, it is very important for teachers to learn as much as possible about each individual student and to experiment with new techniques. Now that we have seen what dyslexia is, what it can be caused by, and how it affects students in general, let us look at the language learning processes and difficulties of dyslexic students.

Just as in the student's first language, dyslexia can cause problems in reading in another language. Students might mix up letters, misread words, read more slowly, and have difficulties understanding the meaning of text.

They might find it challenging to read a text aloud and to pay attention to what they are reading at the same time. Therefore, it is useful to shorten reading texts for dyslexic students, or to divide them into shorter sections.

Illustrations, glossaries of unknown words, quick and easy comprehension questions, can also help the students. We can also give them easier reading tasks, such as finding key information instead of reading for detail.

Another difficulty that can be observed, which we can also see in the student's first language, is problems with spelling words correctly. This is especially noticeable in the case of English, where a
sound can be denoted by different letters and letter combinations, and one letter can stand for different sounds.

If the student’s first language is more transparent than English, it might often happen that dyslexic students do not experience big difficulties with reading and spelling and their mother tongue. Or they successfully overcome them with efficient strategies.

Therefore it is often in English class where dyslexia related learning differences come to light. Thus, the language teacher’s responsibility is high in noticing the potential cause of students’ problems.

Another problem dyslexic students and their teachers often mention is difficulties with memorising new vocabulary items. Dyslexic students need many more encounters with the word, and more practise and revision opportunities to successfully learn new words.

This is a where modern technology, multiple sensory channels, and games can be particularly helpful. Teachers also need to assist the students to remember the correct spelling and pronunciation of words.

Dyslexic students vary with regard to the challenges they can face in using the second language orally. Some students speak with ease and do not have any problems with comprehending spoken text. Other can find it difficult to plan what they want to say, find the right words, pronounce the words correctly, and use grammar accurately.

As I mentioned earlier, shorter working memory span can make it challenging for dyslexic students to follow longer spoken text and remember all the relevant information. For us teachers, it is important to be aware of the fact that dyslexic students very quickly notice that they have hurdles that slow down their progress and many other students overtake them.

Imagine how you would feel and what you would do in this case. Your first feelings would be of frustration, anger. And you would quickly lose your self esteem. Your first reaction would be to flee, and give up, and think about choosing another sport where you do not have to run.

Unfortunately, this often happens. And in this case, dyslexic students are deprived of the opportunity to acquire an essential skill in our globalised world-- speaking another language.

In conclusion, if we teach students how to jump hurdles and alter the racing track for them, the chances they will give up are going to be smaller. We also need to praise them for each small step forward.
Encourage them all along and motivate them by setting up clear and achievable goals. If we do this, we will see many of our dyslexic language learners reaching the finish line.