Accommodating the Syllabus to Visually Impaired Students in the English Language Classroom: Challenges and Concerns

ANA-ISABEL MARTÍNEZ-HERNÁNDEZ & BEGOÑA BELLÉS-FORTUÑO*
Universitat Jaume I/IULMA (Spain)

ABSTRACT

The inclusion of students with disabilities in the education system results in content or assessment accommodations to suit the students' special needs and to ensure they have acquired the objectives listed in the curriculum. In this paper, we aim at proposing different ways to accommodate a university English language test to a partially blind student who used text-to-speech tools (TTS) in order to provide them with accurate assessment. To carry out this research, the student has been monitored throughout the course to see which accommodations fit their[1] needs best. All in all, we have observed that read-aloud accommodations lead to a better inclusion of the partially sighted student and better performance.

KEYWORDS: Special needs; Visually impaired; Higher Education; English language teaching; Curricular accommodation; TTS; Blind; Exam; Accessible.

1. INTRODUCTION

Access to education is one of the many citizen's rights, as established in The Universal Declaration of Human Rights (UDHR) (UN, 1948). Although not a binding or legal piece, the UDHR contributed to making progress in social and people's rights, which were later compiled in the Spanish Constitution (art. 27.1 CE, 1978) and in the European policy. Furthermore, it is a "moral imperative" to provide students with access to "assessment products and services" in education (Hansen & Mislevy, 2008: 1). The term 'accessibility,' can then be defined as the inclusion of students with disabilities in our education system considering their individual needs. This inclusion usually results in accommodations and modifications in the curriculum

as well as in the teaching practice. The former term, i.e., 'accommodation,' is used to refer to extra support to level the playing field for the student with special needs (Harrison et al., 2013) such as timing, setting or format, but keeping the goals and level unaltered. Whereas the latter, 'modification,' implies some "change in what is being taught or in what is expected from the student" (Center for Parent Information and Resources, 2017).

Within the European context, member states have united forces to combat social exclusion. One of the main objectives shared between the European Commission and the European Council is to foster inclusive education, equality, equity and non-discrimination so as to promote civic competences (OJ C 417 15.12.2015: 33), as agreed by all member states on The Paris Declaration on 17 March 2015 (EC/EACEA/Eurydice, 2016; OJ C 195: 7.6.2018: 2). In order to attain those priority areas, namely inclusive education, equality, equity and non-discrimination, governments need to respond to all types of diversity – i.e., "disadvantaged groups such as learners with special needs" (OJ C417 15.12.2015: 25, 28; OJ C 195, 7.6.2018: 3). These aims are in accordance with those outlined in the Convention on the Rights of Persons with Disabilities (UN General Assembly, 2007) which states in Article 24 (UN General Assembly, 2007: 14) the "right of persons with disabilities to education" and the fact that:

> States Parties shall ensure that persons with disabilities are able to access general tertiary education, vocational training, adult education, and lifelong learning without discrimination and on an equal basis with others. To this end, States Parties shall ensure that reasonable accommodation is provided to persons with disabilities.

Along these lines, the European Pillars of Social Rights (EC, 2017) highlights in its first chapter that:

> Everyone has the right to quality and inclusive education, training and life-long learning in order to maintain and acquire skills that enable them to participate fully in society and manage successfully transitions in the labour market.

Within Spanish borders, there has been an intention to develop an inclusive education system over the last four decades (Cuadrado Gordillo et al., 1998), for which the Spanish Constitution (1978) acted as a steppingstone declaring education to be every citizen's right (art. 27.1) and defending the inclusion of people with special needs in all aspects (art. 49). Although inclusive education did not become a reality until the 1990s and onwards with the Organic Laws on Education of 1990 (LOGSE), 2002 (LOCE), 2006 (LOE) and 2013 (LOMCE).

Despite the attempt of European and national policies to make access to education universal (Belles-Fortuño, 2019; Bellés-Fortuño & Martínez-Hernández, in press), much remains to be done as students with special needs are still not integrated or taken into account when designing content (Vickerman & Blundell, 2010). Although education systems are gradually becoming more inclusive in all social aspects (Hansen & Mislevy, 2008), higher education should be leading this transformation and set an example to other institutions; yet it

is a step behind, due to a lack of both information and training of our educators in this area (Dolan & Hall, 2001; Hansen & Mislevy, 2008).

The study presented here is an attempt to accommodate an English language examination paper to a partially sighted student in Higher Education. Douglas et al. (2009) highlight in their report that "providing visually impaired students with access to examination is challenging" (p. 4). As hard as it may be to imagine academic life without it, the printed text offers limited access to knowledge and interaction for many (CAST, 2018; Dolan & Hall, 2001). Access to printed material for a blind or partially blind person, for instance, used to require adaptation to Braille. Nevertheless, with the help of modern technological tools such as text-to-speech tools (TTS), and with the right text format, universal design can be fostered. Subsequently, a student with partial sight can have full access to content, instruction and assessment, and many of its barriers might be reduced (Dolan et al., 2005; Dolan & Hall, 2001; Dolan et al., 2010).

The university where this study takes place holds a Special Needs Unit that supports anyone with special needs in campus (e.g. students, administration staff and lecturers) within the university community or having to deal with situations where special needs occur. The functions of this Unit are mainly to raise awareness and sensitise the community about accessibility to communication, services and spaces, among others. But above all, they provide support and guidance to teachers to aid students with special needs along their academic life. This Unit also serves as mediators between the university and national or international Special Needs entities such as the Spanish national blind association (ONCE)[2] in this case, which is an exemplary and model foundation of excellent reputation in Spain for blind and visually impaired people. ONCE is a private statutory organisation, thus not part of the public administration. However, it performs tasks that may traditionally be associated with competences of the public administration (Corporaciones de derecho público, 2020), i.e. the blind and visually impaired.

Learners with disabilities in our classroom need the opportunity to show their knowledge in a way that adapts to their needs, oftentimes with the help of ICTs or other tools (CAST, 2018), especially with the help of those support tools they rely on to perform everyday tasks (Red SAPDU, n.d.); otherwise, test results might be invalid (Dolan & Hall, 2001). In our particular case of study, the student uses TTS software, namely *Jaws* (Freedom Scientific, n.d.), to access culture and knowledge through written text since they are illiterate in Braille. *Jaws* (Freedom Scientific, n.d.) is a screen reader for Windows that provides the blind and the visually impaired with access to text through either a Braille terminal or converting text into speech. In the case described here, the student used the latter, as they are not able to read Braille. A sighted person with the right language level could perform the tasks satisfactorily as they have two channels – or senses – working concomitantly to decipher the information: visual and auditory, i.e., sight and hearing. Sight would be in charge of reading the questions, while the recording comes in the auditory channel. However, written text is encrypted for a

partially sighted person since they do not have the visual channel and, therefore, cannot recognise written graphemes. Although Braille provides the visually impaired with another channel as an alternative to sight, not all visually impaired people are literate in Braille for many reasons, one of which might be the progressive loss of sight, for which the partially blind student in this research is a case in point. Hence, the use of TTS software in this study.

The student observed in this study uses the screen-reader *Jaws* (Freedom Scientific, n.d.) in their everyday life to perform any text-related tasks, among which are note-taking and reading, to name a couple. Thus, all materials – handouts, worksheets, and so forth – should be accessible, not to mention examination papers. An indicator of text accessibility is optical character recognition (OCR); that is to say, any scanned image or text should be converted into readable by the TTS software.

Thus, our research departs from the following research question: Is the text-to-speech software useful enough for partially sighted students to succeed in a language subject examination at university? Our hypothesis is that although text-to-speech is essential for visually impaired students to face education, the complexity of language acquisition and the variety of tests to evaluate the four different language skills might unveil some obstacles for these students.

Alternative modalities for expression, such as TTS software, and accommodations are crucial to making Higher Education inclusive and accessible. The purpose of this research is to design, develop and implement a test in a way that eliminates accessibility barriers to visually impaired students without compromising validity (Hansen & Mislevy, 2008).

2. METHOD

In this study we adapted an English language test to a student with a high partial blindness. This research has been conducted in a first-year English language course within a linguistic-based degree at a Spanish university. The objectives and contents of the course assume that all students have acquired a B1 level, which is reached upon successful completion of A levels.

Given that English is present in all years of their degree, a strong foundation of the language is needed. The main linguistic aims of the subject are (1) to endow students with the necessary skills to improve the comprehension of texts written in English, and (2) to develop an upper-intermediate command of the language in all skills – i.e. speaking, listening, reading, writing, which are assessed in the final exam.

2.1. Procedure

In order to achieve an exam accommodation with which the student would feel comfortable, we requested information to the student related to the preferred layout for some tasks to make the test fully accessible to them and easy to navigate with their TTS tool, since to provide a barrier free examination paper, some authors state that it is mandatory that we hear their experiences and voices (Fuller, Bradley & Healey, 2004; Franklin & Sloper, 2006; Madriaga, 2007 as cited in Vickerman & Blundell, 2010). Several accommodations ensued from these questions, among which format, timing and design were paramount for accessibility, but also setting as a last-minute accommodation for the listening.

The original English exam paper evaluates the four skills in the way that follows: the Speaking paper is made up of four parts: in Part 1 students need to answer questions related to familiar topics and everyday life, in Part 2 they are given two pictures and a question to answer about the pictures, in Part 3 they are given a question and different topics related to the question to talk about in pairs, and in Part 4 they discuss a question related to the topic in Part 3. Parts 1 and 4 did not present any problem as all the prompts were oral, but Parts 2 and 3 required modification and accommodation, respectively, as there were some visual prompts.

The Reading and Use of English paper consisted of seven parts. Part 1 is a multiple-choice question made up of a gapped short text. The students are given the options (A-D) below the text to choose the best word to complete the sentence. Part 2 is an open-cloze question in which students find a gapped text they need to complete with the right word – no options given. Part 3 assesses word formation. Students are given a short, gapped text. For every gap the student is given a word in brackets from which they need to create a new word to fit the meaning of the sentence in the text. Part 4 is about paraphrasing. Students' ability to express the same information in a different way is assessed. Part 5 is a traditional multiple-choice reading comprehension task. The students are given a long text and six multiple-choice questions about the text; they need to choose the correct answer. Part 6 consists of a long text with some missing information; some sentences have been removed and jumbled. The student needs to read the text and write the sentences in the correct place – there is one extra sentence to make it more challenging. In Part 7, students are given some short texts about the same topic and some statements. They need to say in which text they find the information summarised in each statement.

The Listening paper is made up of 4 parts. Part 1 consists of eight multiple-choice questions and eight different recordings, one for each question. There is a narrator to guide the student through the questions. In part 2, students are given some prompts that need to be completed. They listen to a monologue in which all the information in the written prompts is paraphrased except the exact words the students need to complete the information. In Part 3, students listen to five speakers. In this task, students are given a list of statements that

summarise what each speaker says; students listen to the speakers and match them to the correct sentence. Part 4 is a multiple-choice task made up of seven questions. Students listen to an interview and need to choose the correct answer. This part is similar to Part 1 in the layout, although quite different in the procedure. Part 1 includes an interlocutor who guides the students through the questions, allowing some pauses between them. Even though in Part 4 the interviewer's questions aid the student navigate through the questions, there is no pause between them. In Parts 2 and 4, there were no interruptions aside from those in natural spoken language, at variance with Parts 1 and 3, in which an interlocutor is guiding through the questions and introducing the extracts.

The Writing paper consists of the production of two written texts, i.e., two tasks. The first task, i.e., an essay, is compulsory; while in the second task they have three options to choose another type of writing to show their command of the language.

In the next section, we will describe the accommodation the original English exam paper suffered to be adapted to the partially sighted student.

2.2. Accommodations

2.2.1. Text-to-speech exam

As far as format is concerned, official university exams are usually printed on A4 paper; however, a partially sighted person cannot read the text as they have very limited vision. Thus, as stated in Douglas et al. (2009) "the importance of electronic versions of examinations seems a critical approach to enable students to gain access to their preferred format" (Douglas et al., 2009: 4). The student had to complete the written part of the exam on their laptop, considering that the read-aloud software was already installed, and the student was accustomed to it. For the exam to be fully accessible to the student and the software, an editable text-only format was preferred; therefore, an MS Word-file was appropriate (Douglas et al., 2009). For this accommodation to be fair to the rest of students in class, we had to make sure the laptop had no internet connection and that no files were available so that the student could not look for exam answers. The use of TTS software offers students uniform reading, on the one hand, as opposed to human read-aloud which may present some drawbacks such as confusing intonation or misleading pauses (Dolan et al., 2005). On the other hand, it provides an "individualised, independent, and self-paced multimodal access to test content" (Dolan et al., 2005: 8).

2.2.2. Layout

Regarding layout and design, the most notable accommodation was the suppression of the answer sheet the rest of the students had. The answer sheet is, on the one hand, a time-saver for the teacher in terms of correcting, as all answers are concentrated into one or two pages,

rather than scattered in the sixteen-page question paper. On the other hand, however, it is also a way to ensure students double-check their answers. Notwithstanding, to avoid constant navigation through the exam document, the student could write the answers next to the question, as this was more convenient to them.

In addition to this, some fill-in-the-gaps and multiple-choice exercises had to be redesigned, especially those which assessed grammar and vocabulary. All dotted lines which indicated the gaps where students had to write the answer were deleted since the read-aloud software would read "dot, dot, dot" unendingly, breaking the flow and meaning of the utterance; hence, making it harder for the student to concentrate. For this reason, the gap for the missing word would be indicated only with a number in brackets (Figures 1 and 2). While the gaps are visually evident in the original exam, and they might be an advantage to those students with no special needs, they seemed to be an obstacle and confused the student as it broke the sentence with unnecessary noise – i.e., "dot, dot, dot". The student would write their answer next to the number in brackets, as they worked on an editable file.

scientists can therefore see that the sea level in Venice **(14)** ……………… risen by about 2.7 millimetres per year **(15)** ……………… Canaletto's day. More **(16)** ……………… 230 years after his death, therefore, the artist's paintings provide a record of sea levels for a period long before modern measurements began.

Figure 1. Reading and Use of English Part 2 – Original (Mann et al., 2015)

The scientists can therefore see that the sea level in Venice **(14)** risen by about 2.7 millimetres per year **(15)** Canaletto's day. More **(16)** 230 years after his death, therefore, the artist's paintings provide a record of sea levels for a period long before modern measurements began.

Figure 2. Reading and Use of English Part 2 – Adapted (Mann et al., 2015)

In the case of short multiple-choice questions, all the options were moved closer to where the gap was, and they were written in square brackets (Figures 3 and 4). Otherwise, had the options not been moved closer to the gap, the student would have had to navigate with the arrows in the keyboard and the cursor up and down. The student found it more convenient this way.

Living on a hill in London, after dark I can see the lights of the city beneath me and also the orange glow they **(0)** __A__ up into the night sky. But I can **(1)** ………….. see any stars. If light pollution - as this effect is known - continues to increase at its present **(2)** ………….. , our

0.	A send	B give	C keep	D fill
1.	A clearly	B surely	C hardly	D faintly
2.	A case	B rank	C grade	D rate

Figure 3. Reading and Use of English Part 1 – Original (Mann et al., 2015)

Living on a hill in London, after dark I can see the lights of the city beneath me and also the orange glow they **(0)___A___** up into the night sky *[0. A send   B give   C keep   D fill]*. But I can **(1)** see any stars **[1. A** clearly   **B** surely   **C** hardly   **D** faintly**]**. If light pollution - as this effect is known - continues to increase at its present **(2) [2. A** case   **B** rank   **C** grade   **D** rate**]** , our grandchildren will only **(3)** the

Figure 4. Reading and Use of English Part 1 – Adapted (Mann et al., 2015)

Regarding longer texts, namely Parts 5, 6 and 7, the student was asked for feedback and input on what accommodations were required (Vickerman & Blundell, 2010) for them to access the written word effortlessly. The student with partial blindness was offered layout options so as to make it more accessible to them, with particular emphasis on Parts 6 and 7. They were asked whether all the options given should appear (a) before the text, (b) after the text, or (c) where the gaps appeared, in Part 6, to make it easier to navigate if they had all the options at hand. The student chose 'after the text,' that is, the default format their sighted classmates would have. The student was familiar with the standard layout since that is the one offered in the book activities they worked in class, so it leads us to think that their choice might have been influenced by the fear of being treated differently, i.e. fear of discrimination (Kimball et al., 2016) or the student simply did not know which layout was more comfortable for them.

2.2.3. Description of images

The modern world demands multimedia literacy, as it is becoming increasingly visual. Images are flourishing everywhere, and, in turn, they are acquiring an important role in education (Boustead & Ozturk, 2004; Kendrick & McKay, 2004; Pope Edwards & Mayo Willis, 2000, as cited in Dolan et al., 2010). The absence of any printed prompts posed a challenge for both the teacher-examiner and the student in the Speaking paper. Part 2 of the Speaking paper tests the students' ability to "read" and interpret images. Yet blind and partially blind students hardly have access to this literacy, for obvious reasons. Therefore, in Part 2, the student was not asked to describe the pictures; instead, the teacher-examiner provided a general description of these pictures and asked the student a question related to the topic in the pictures. By modifying the task, the student was given the same chance as the rest of classmates to show a range of lexis related to the topic, as well as their fluency and degree of language control.

In Part 3, the written prompts consisted of a written question and some topics to raise discussion between the participants (see Figure 9). Considering this part was taken in pairs a simple read-aloud accommodation sufficed to help the student engage in discussion with their partner. Additionally, their partner could also guide the discussion and the student through the topics. The tasks in Parts 2 and 3 were accommodated as follows:

Table 1. Accommodation of Speaking paper

	Regular instructions	**Accommodated instructions**
Part 2	"In this part of the text, I'm going to give each of you two photographs. I'd like you to talk about your photographs on your own for about a minute and also to answer a question about your partner's photographs. X, it's your turn first. Here you have two photographs they show people doing sports in different situations. Compare the pictures and say which person is taking the most risk." (Figures 5, 6) ... "X, which of these jobs would you prefer to do?" (Figures 7, 8)	"I will describe the photographs to you, and you will have a minute to talk about the question. Both photographs show people doing sports. The one on the left is doing parkour, he's wearing sports clothes, and he's doing a backflip. In the second picture, the person is snowboarding, and he's wearing snowboarding gear: goggles, helmet… and he's jumping. Which person do you think is taking the most risk?" … "X, which of these jobs would you prefer to do: war correspondent or fire-fighter?"
Part 3	"Now I'd like you to talk together for about two minutes. I'd like you to imagine that a college is offering career advice to their students and these are the jobs they talk about. I would like you to discuss how rewarding you think each of these jobs would be." (Figure 9)	"Now I'd like you to talk together for about two minutes. I'd like you to imagine that a college is offering career advice to their students and these are the jobs they talk about: journalist, nurse, police officer, teacher and lawyer. I would like you to discuss how rewarding you think each of these jobs would be."

2.2.4. Timing

As for timing, the Special Needs Unit at university, in agreement with the ONCE, established that the student would need a 50% more than the average student on the written test. Ergo, the timing was initially accommodated as shown in Table 2. The Listening Paper was to be carried out in the examination room along with all the rest of the students and would be played a second time if the student needed so in order to promote an inclusive environment since no measures indicating otherwise had been instructed by either ONCE or the Special Needs Unit. Notwithstanding, there was a change of setting for the listening exam as a last-minute accommodation. This improvised accommodation resulted from the angst and frustration the student underwent since *Jaws* (Freedom Scientific, n.d.) cannot read aloud the

information as fast as the human eye can. This accommodation had been anticipated by neither the student, the Special Needs Unit, ONCE, nor the teacher, so the decision had to be made on the fly.

Table 2. Examination Timing 1

Written test papers	Regular timing	Accommodated timing (1)
Reading & Use of English	1h 15 min	2h
Listening	50 min	1h 15 min
Writing	1h 20 min	2h

Upon the adaptation of the written test, supervision and approval were requested from ONCE. The tutor of the organisation was in charge of evaluating how accessible the examination paper was to the partially sighted student. After a couple of weeks, we obtained the green light for the accessibility of the format and layout.

Figure 5. Image for speaking 2 (Source: Pixabay)

Figure 6. Image for Speaking Part 2 (Source: Pixabay)

Figure 7. Image for Speaking Part 2 (Source: Pixabay)

Figure 8. Image for Speaking Part 2 (Source: Pixabay - Journalist documenting events at the Independence square. Clashes in Ukraine, Kyiv)
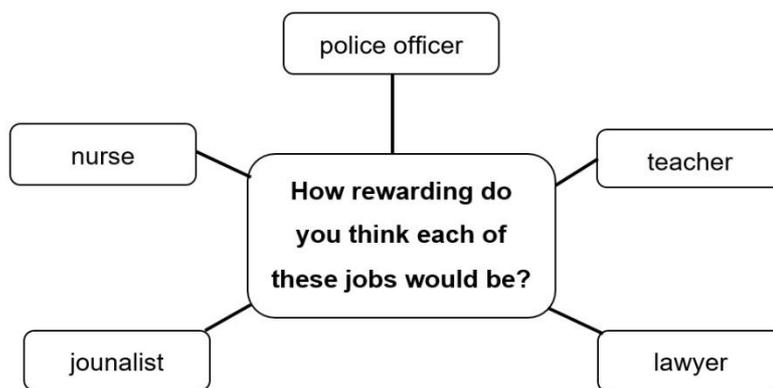
Figure 9. Prompts for Speaking Part 3

3. RESULTS

Regarding the Speaking paper, as explained in the previous section, the student did not struggle with the format. The accommodation of Parts 2 and 3 suited them, and they could attain the objectives assessed in the oral test successfully.

In respect of the Listening paper, not being able to pause the audio track to listen to the next question jeopardised the completion of the tasks. In order to allow the student to complete the listening examination paper to avoid frustration, they were allocated a different time and place where the listening would be paused for the TTS tool to read all the information twice before playing the recording.

Despite the accommodations provided to the student, i.e., exam format and a change of setting, results show the student still struggled to fulfil the four listening tasks proposed in the exam paper. The procedure for listening tasks requires reading the task before listening to the recording and attempting to answer. However, a sighted person can keep reading the question while listening, but the partially blind student would have to retain the information and remember the question while listening. This did not pose a challenge for Part 1 (Figure 10) and Part 3 (Figure 11) of the listening since they consisted of short phrases.

Listening | Part 1

You will hear people talking in six different situations. For questions 1-6, choose the best answer (A, B or C). You will hear each situation twice.

   1) You hear a woman talking about her car. What is she describing?
      A. what she dislikes about her car
      B. how she needs a new car
      C. why she needs a new car

Figure 10. Listening Part 1 – Adapted from Mann et al., 2015.

Listening | Part 3
You will hear five short extracts in which people who have given up stressful jobs in the city are talking about their decisions. Match the speakers to the statements. There are two statements you will not need to use.

A. I'm not absolutely sure I've done the right thing.
B. I find I can manage on a much lower income.
C. My employer wouldn't help with the stress.

Figure 11. Listening Part 3 – Adapted from Mann et al., 2015.

Conversely, Parts 2 (Figure 12) and 4 (Figure 13) required a higher level of ability of word retention for the student as the stretches of language and speaker interventions in the tasks were longer. Despite the help the interviewer might provide the sighted student to navigate through the questions in Part 4; the partially blind student is at a disadvantage since they would need to pause the recording to listen to the read-aloud software read the question for them, retain the options, and continue listening to the audio track. This hampered task completion.

Listening | Part 2
You will hear a well-known sportsman called Malcolm Price talking about training for different physical activities. For questions 9-18, complete the sentences with a word or short phrase.

Sports training
Malcolm has achieved sporting success as a(n) **(9)** .
Malcolm says that fundraising for **(10)** can be just as demanding as competitive sport.
Malcolm mentions running and **(11)** as sports requiring training.
Malcolm tells us that his weight is **(12)** .

Figure 12. Listening Part 2 – Adapted from Mann et al., 2015.

Listening | Part 4
You will hear an interview with Alan Preston, a young man who sailed around the world alone at the age of sixteen. For questions 24-30, choose the best answer (A, B or C)
24. How does Alan describe himself as a child?
    A. keen to follow in his father's footsteps
    B. interested in dangerous activities
    C. willing to try anything new

Figure 13. Listening Part 4 – Adapted from Bell & Thomas, 2014.

The fact that there are no well-defined and evident pauses or interruptions in these two parts to indicate when the examinee had to move on to the next question and focus on listening for new details makes it highly demanding for the visually impaired illiterate in Braille, since their only channel, i.e. the auditory, is trying to decode two different oral texts: the read-aloud by *Jaws* (Freedom Scientific, n.d.) and the recording. In the face of the stress the partially blind student was experiencing, they were excused from completing these two parts because the adaptation might not have been as efficient as expected.

3.1. Recommendations for language assessment improvement

The results obtained from this study arose reflections for language assessment improvement which were discussed by all university members involved, the English teacher, ONCE and the university Special Needs Unit. In an intense meeting some accurate accommodations and test adaptations, some general (1, 2) and specific (3), for the Reading and Use of English paper were discussed.

First of all, (1) in order to favour navigation in the document, fragmenting texts into sentences was suggested. Against the principles of coherence in text writing, single-sentences are facilitative to TTS tools. Despite the linguistic importance of paragraphs as far as coherence and cohesion of a text are concerned, breaking paragraphs into shorter sentences makes navigation through the text more accessible to the visually impaired (Unitat de Suport Educatiu, 2015). TTS software does not stop reading until it reaches the end of a paragraph, therefore, making it hard for the student to identify and remember where the gaps are. Splitting the paragraphs into shorter sentences makes it less challenging for a visually impaired student as navigation with the cursor occurs only vertically, rather than vertically and horizontally, as the student remembers the beginning of the sentences and knows where they are in the text.

Second of all, (2) shorter texts and sentences might make access to long, complex texts less daunting to a visually impaired student. Although this might seem a feasible option at first sight, by doing so, the syntax is being simplified, and the student is not showing their B2 knowledge of the language, required to pass the subject. Even though this might work in a listening comprehension activity, it does not apply in this context as it is the comprehension of the text itself what is being assessed. Modifying the text to simplify it, be it oral or written, cannot be considered an option; otherwise, the level and validity of the examination might be compromised. It is part of the examination and part of the level to understand certain syntactic structures and the assessment and evaluation of all skills must be the same for all students (Miller et al., 2005).

Third of all, (3) in Part 6, all the possible options for the missing fragments should appear immediately after each gap. In this way, the student would not have to navigate through the text vertically to find all the possible options at the end of the text. Then, backtrack with the help of the cursor to the specific point in the text where the reading stopped before, i.e. the gap where that sentence should go. This small adaptation would save the student time and having to retain ample information. This adaptation had already been anticipated by the researchers, albeit not applied.

4. CONCLUSION

In this study we departed from the following research question: Is the text-to-speech software useful enough for partially visually impaired students to succeed in a language subject examination at university?

From the results observed, we could conclude that the listening examination paper needs further adaptation, especially in Parts 2 and 4, or even some extra modifications. In this sense, Part 2 might require further time adaptations or task simplification. For instance, reducing sentences into more schematic text. Simplifying syntactic structures in a listening task such as this one would not present a dilemma between level and language since what needs to be understood is the oral text in the recording, the task is simply proof of that listening comprehension taking place.

Furthermore, another finding shows that multiple-choice questions with no clear and obvious pause or interruption between questions are not a suitable format for partially sighted students. Instead, the task could be modified into a True-or-False activity, in which sentences are shorter, and the student would not have to retain the question and three options - just the sentence. The recording to be used in the task is the same; thus, the level is not altered, as they need to show comprehension of that oral text.

With regards to the Writing paper, it did not seem to present any impediment to the student in terms of accessibility. The fact that it was a production task rather than a comprehension one meant that the student could finish both tasks within the regular timing limits. Although the results obtained in the writing test were not up to a standard. This could have been a result of the stress the student suffered on exam day or, alternatively, the student did not have the right level and knowledge of the language.

As for the Reading and Use of English paper, this presented a dilemma from the beginning in terms of validity, as it aims to prove text comprehension, but instead, listening skills were being practised. Had the adaptation used been Braille, this would not have posed the dilemma, as reading does take place. However, owing to the use of *Jaws* (Freedom Scientific, n.d.) the student was listening rather than reading the text. Thus, the occurring decodification did not meet the assessment objectives of the tasks.

Problems had not been anticipated for the Reading and Use of English paper except for those mentioned above, namely dotted lines, multiple-choice and navigation through long texts. Notwithstanding, the student had some difficulties to accomplish the tasks since sentences were long and complex. Results show that further adaptation will be needed in this point. On exam day, the student seemed to navigate through the text and questions with no relevant setbacks. Despite the timing accommodation for this exam paper, the student did not have enough time to finish Part 7 and was excused from completing it on the grounds that time adaptation might have been inaccurate. Seeing that the student was struggling with timing a

  IJES, vol. 21 (1), 2021, pp. 75–92

second modification of the time accommodation was needed in situ for comprehension tasks and resulted in the timing shown in Table 3.

Table 3. Examination Timing 2

Written test papers	Regular timing	Actual time (2)
Reading & Use of English	1h 15 min	2h 30 min
Listening	50 min	1h 40 min
Writing	1h 20 min	1h 20 min

As we have seen in the results obtained in this paper further accommodations are required in a regular language test to make it accessible to a partially sighted student, such as setting. These findings go along with the hypothesis we established at the beginning of this paper. Although useful, the text-to-speech software has presented some problems to the partially sighted student for the on-going of the language examination, which despite the experience and knowledge of the parties taking place in the accommodation of the exam, could not be foreseen. These results cast a new light on language exams design for the blind and partially blind. However, in line with the ideas of Dolan et al. (2005), it can be concluded that although read-aloud accommodations have led to higher inclusion, full inclusion was not reached. On the one hand, higher-inclusion was attained since the student could do most of the exam at the same time as their peers. Notwithstanding, full inclusion was not reached because the listening test needed further accommodation. The student's lack of proficiency was considered as a possible conclusion, although, it was dismissed as the researchers had some information regarding the student's level and command of the language from other tasks performed in class. Taking this information into account and comparing it to the tests results, the level of the student did not match the results obtained in the test.

The accommodations of the English language examination paper presented here can be an example of how language courses in general and language assessment, in particular, have to be adapted to people with special needs and more concretely to partially sighted or blind students. Despite universities following inclusion policies and having Special Needs Units, as it has been the case here, real practice and classroom applications in everyday university lecturing can provide fruitful results and insights accommodating language teaching syllabi. We have proven here that general guidelines provided by Special Needs national and international association are beneficial; however, these directions and standards together with the use of text-to speech software are not definite. Other last minute accommodations were needed. Real language teaching practices in situ like the one here have proven to be very useful as to effective ways of accommodating the English language assessment.

All in all, the findings and conclusions provided in this paper can be valuable for visually impaired students participating in language-based subjects assessments at university. The

study also provides tangible guidance for language lecturers to adapt examination papers to partially sighted students.

Conflict of interests: The authors have no conflicts to be declared.

NOTES

[1]The plural personal pronoun 'they' is used throughout this paper to refer to the partially blind student taking part in this study in order to preserve anonymity, as gender is irrelevant to the context of the study.

[2] Spanish acronym for *Organización Nacional de Ciegos Españoles*

REFERENCES

Bell, J. & Thomas, A. (2014) *Gold First Coursebook*. Harlow: Pearson Education Limited.

Bellés-Fortuño, B. & Martínez-Hernández, A.I. (in press). The use of Wordclouds for vocabulary retention in the English for Psychology classroom. *The EuroCALL review, 28*.

Bellés-Fortuño, B. (2019). Diversity in the language classroom. (B. Bellés-Fortuño, Ed.) *Language Value, 11*(1), pp. i-iii.

CAST. (2018). Universal Design for Learning Guidelines version 2.2. from http://udlguidelines.cast.org

"Center for Parent Information and Resources." *Supports, Modifications, and Accommodations for Students*, Newark, NJ. Retrieved 7 February, 2020.

Constitución Española. Boletín Oficial del Estado, 29 de diciembre de 1978, 311: 29313-29424.

Corporación de derecho público. In *Diccionario del español jurídico. Real Academia Española*. 2020. Retrieved 14 February, 2020.

Corporaciones de derecho público. In *Enciclopedia Jurídica.* 2020. Retrieved 14 February, 2020.

Council of Europe. (2001). *Common European framework of reference for languages: learning, teaching, assessment*. Cambridge, U.K.: Press Syndicate of the University of Cambridge.

"Council Recommendation of 22 May 2018 on promoting common values, inclusive education, and the European dimension of teaching." *Official Journal of the European Union*. (2018/C 195/01) ST/9010/2018/INIT

Cuadrado Gordillo, I., Davara Rodríguez, L., López Risco, M. & Murillo Gil, M. (1998). *Alumnos con necesidades educativas especiales. Tomo I.* Cáceres: Universidad de Extremadura. Servicio de Publicaciones.

Dolan, R.P. & Hall, T.E. (2001). Universal Design for Learning: Implications for Large-Scale Assessment. *IDA Perspectives, 27*(4), 22-25.

Dolan, R.P., Burling, K.S., Rose, D., Beck, R., Murray, E., Strangman, N., Nichols, A. & Strain-Seymour, E. (2010). *Universal Design for Computer-Based Testing (UD-CBT) Guidelines.* Iowa City, IA: Pearson Education.

Dolan, R. P., Hall, T. E., Banerjee, M., Chun, E. & Strangman, N. (2005). Applying principles of universal design to test delivery: The effect of computer-based read-aloud on test performance of high school students with learning disabilities. *Journal of Technology, Learning, and Assessment*, 3(7), 1-33. Retrieved from http://www.jtla.org.

Douglas, G., McCall, S., Pavey, S. & Nisbet, P. (2009). *Summary report on international systems of exam access for visually impaired pupils: United Kingdom*. CALL Scotland.

España. Ley Orgánica 1/1990, de 3 de octubre, de Ordenación del Sistema Educativo, 238: 28927-28942.

España. Ley Orgánica 10/2002, de 23 de diciembre, de Calidad de la Educación, 24 de diciembre de 2002, 307: 45188-45220.

España. Ley Orgánica 2/2006, de 3 de mayo, de Educación, 4 de mayo de 2006, 106. (LOE).

España. Ley Orgánica 8/2013, de 9 de diciembre, para la Mejora de la Calidad Educativa, 10 de diciembre de 2013, 295.

European Commission. (2017). *The Pillar of Social Rights*.

European Commission. (2017). *Proposal for an Interinstitutional Proclamation on the European Pillar of Social Rights, COM 251 final*.

European Commission. (2015). Joint Report of the Council and the Commission on the implementation of the strategic framework for European cooperation in education and training (ET 2020) New priorities for European cooperation in education and training. *Official Journal of the European Union* (2015/C 417/04).

European Commission/EACEA/Eurydice. (2016). *Promoting citizenship and the common values of freedom, tolerance and non-discrimination through education: Overview of education policy developments in Europe following the Paris Declaration of 17 March 2015*. Luxembourg: Publications Office of the European Union.

Freedom Scientific. (n.d). *Jaws* (Job Access with Speech).

Hansen, E.G. & Mislevy, R.J. (2008). *Design Patterns for Test Takers With Disabilities*. ETS.

Harrison, J.R., Bunford, N., Evans, S.W. & Owens, J.S. (2013). Educational Accommodations for Students with Behavioral Challenges: A Systematic Review of the Literature. *Review of Educational Research, 83*(4), 551-97.

Kimball, E.W., Wells, R.S., Ostiguy, B.J., Manly, C.A. & Lauterbach, A.A. (2016). *Students with Disabilities in Higher Education: A Review of the Literature and an Agenda for Future Research*. https://doi.org/10.1007/978-3-319-26829-3_3.

Mann, R., Kenny, N., Bell, J. & Gower, R. (2015). *First Expert Student's Resources*. Harlow: Pearson.

Miller, O., Keil, S. & Cobb, R. (2005). *Review of the literature on accessible curricula, qualifications and assessment*. Report submitted to the Disability Rights Commission. Disability Rights Commission.

Red SAPDU, Red de Servicios de Apoyo a Personas con Discapacidad en la Universidad, Fundación Once. (n.d.). *Guía de adaptaciones en la universidad*.

UN General Assembly. (2007). *Convention on the Rights of Persons with Disabilities*: resolution / adopted by the General Assembly, 24 January 2007, A/RES/61/106. Retrieved from: https://www.refworld.org/docid/45f973632.html (30/01/2020)

Unitat de Suport Educatiu. (2015). "Guia d'atenció a La Diversitat." https://recercat.cat//handle/2072/357258#.

Vickerman, P. & Blundell, M. (2010). Hearing the Voices of Disabled Students in Higher Education. *Disability and Society, 25*(1), 21–32. https://doi.org/10.1080/09687590903363290.

United Nations. (1948). *The Universal Declaration of Human Rights, 1948-1998.* New York: United Nations Dept. of Public Information.

Resources:

Image 1:

Parkour, Atleta, Al aire libre by Usman Ahmad on Pixabay, Pixabay Licence.

Image 2:

Snowboard, Nieve, Trampolín, Extremo, Deportes by Michael Gedde on Pixabay, Pixabay Licence.

Image 3:

Bombero, Formación, Vivir, Fuego, Controlado by 272447 on Pixabay, Pixabay Licence.

Image 4:

Journalist documenting events at the Independence square. Clashes in Ukraine, Kyiv. Events of February 18, 2014, by Mstyslav Chernov/ UnFrame under Creative Commons Attribution-Share Alike 3.0 Unported License.