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Increasing awareness of dyslexia; A knowledge exchange project linking schools, the Gloucestershire Dyslexia Association (GDA), and Bath Spa University.

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Abstract

We present the results from a teacher workshop co-created with a local dyslexia charity which aimed to raise awareness of dyslexia. Research evidence indicates that the teachers feel that initial and subsequent teacher training does not adequately cover dyslexia and other SEN. Approximately sixty teaching staff members from six schools (four primary and two secondary) participated in the workshops. We administered a pre- and post-workshop survey to capture the training needs and the impact of the targeted action-led workshop. Results from qualitative and quantitative analyses indicated that the teachers at the end of the workshop felt confident and powerful in identifying and supporting learners with dyslexia. The educational and policy implications of the initiative are discussed.

Introduction

Research evidence suggests that teachers need a sound knowledge of dyslexia to support students with dyslexia. Teachers are aware that dyslexia training (initial and continuous) is limited and costly (Knight, 2018; Whiteboure, Niolaki, Terzopoulos, Wood, under review).

Whitebourne et al. (under review) specifically highlights that '*currently, dyslexia teaching training has been light touch*'. This is surprising considering that 43% of the parents want help with their children's assessment for dyslexia, 21% needs support with managing dyslexia and teaching and 18% with managing the emotional consequences of dyslexia, as demonstrated by research carried out by the Gloucestershire Dyslexia Association (2020) via the parent-carer forum.

The British Dyslexia Association (2019, p.2) highlighted that:

"The human cost of dyslexia is too high, and we need to change that".

This powerful quote ignited our determination to seek support and fund our work in school with the teachers. The project idea was instigated in a Gloucestershire Dyslexia Association (GDA) meeting in July 2022. During the annual knowledge exchange meeting, the Chair of the Trustees (Mrs Claire Penketh) raised the need for dyslexia advocacy and an increase in membership numbers. I was aware at the time of the Arts and Humanities Research Council (AHRC) Impact Accelerator award, and this sparked the idea to approach Claire and my colleague from Birmingham City University (Dr Aris Terzopoulos) and apply for the funding. Our suggestion was that to minimise the cost, schools' personnel and parents must be aware of *the human cost of dyslexia*. The BDA's (2019) report stresses that the solution to improving public policy to support young people with dyslexia lies in training specialist dyslexia teachers, as these teachers can create bespoke interventions.

The BDA (2019) calculates the number of individuals with dyslexia in the UK is around 15%, with 4% of the population at the severe end of the dyslexia continuum. This equates to approximately 7.3 million people and between 800,000 and 1.3 million young people in education (DfE, 2018). Out of 8.7 million school children in England, the BDA's (2019) [general report](#) from the All-Party Parliamentary Group for Dyslexia and other SpLDs (APPG) estimated about 870,000 of them have dyslexia, but fewer than 150,000 were diagnosed, according to Department for Education figures.

The report carries on to stress that parents spent over £1,000 extra per year to support their child's dyslexia according to a survey with over 1,300 responses developed for the APPG for Dyslexia and other SpLDS. From the same survey it was reported that parents feel that they are not in a position to support their children while a staggering 82% reported that their children are embarrassed by their dyslexia and try to hide their difficulties. These numbers demonstrate the need for awareness, and our aim is to trial out short bite-size workshops for teachers to raise excellence in understanding and supporting individuals with dyslexia. In informal discussions we had with local schools, the need for better teacher training and continuous support in understanding dyslexia is highlighted.

Methods

As soon as Bath Spa University Ethics Committee evaluated and approved our project, we were set to proceed with the co-creation of the workshops. The first online meetings aimed to identify the GDA members who will work closely with us. Wendy, an experienced dyslexic-trained Learning Support Teacher in school, and Lucy, a mother of a child with dyslexia, offered to collaborate more closely with Aris and me throughout the processes and the build-up of the workshop content (see pictures 1 and 2). In addition, other members of the GDA contributed by participating in the workshops, sharing thoughts with the teachers, and making the school aware of the GDA and its role in the community. Also, members supported us with finding schools (six in total) and liaising with the key people about the logistics of the project (date, time of delivery, advertising the project to the teachers, disseminating the pre- and post-workshop survey, advertising the project in X (former Twitter), the GDA [webpage](#) and newsletter). We adopted a bottom-up approach in evaluating our project by seeking teachers' beliefs and knowledge about dyslexia recognition and classroom support (Worthy et al., 2016; Gibbs & Elliott, 2015).

<Pictures 1 and 2 about here>

We initially discussed how we would capture the teachers' knowledge and beliefs of dyslexia, their further development training needs and, at the same time, the impact of the KE workshops. Therefore, we co-created a pre- and post-workshop survey. The pre-workshop survey aimed to capture the specific areas and topics the teachers would like or needed to receive training on. This was also an excellent opportunity to understand the needs of the local schools and, therefore, provide them with tailored support. In that way, the support workshops and the knowledge exchange initiative would be meaningful to them. The questions were also designed so that we could gauge the change in teachers' beliefs and knowledge before and after the workshops. End of the workshops feedback was valuable, to evaluate the importance of the knowledge exchange workshops.

Participants

Workshops were delivered in 6 [state](#) schools (2 secondary and 4 primary) to approximately 60 teaching staff. The pre-workshop survey was completed [voluntarily](#) by 58 teachers (and the post-workshop by 32). The attrition is not unexpected in research (Groves et al., 2009), especially when taking into account teachers' busy schedules. Staff varied in numbers and occupations, including Special Educational Needs Coordinators (SENCo), Teaching Assistants (TA), teachers, support staff, headteachers, senior management team members, and one member of the local educational authority. Ages varied from 18 to 60, but most teachers were between 41 and 50. They were also mainly females and White British.

Materials

The co-developed survey tool included 16 questions. These were short answer questions (e.g., "*Why do you want to learn about dyslexia?*") or a three-point Likert scale (i.e., "*How would you rate your current knowledge of Dyslexia?*") with choices: *a. Not aware at all / no knowledge e.g. I do not feel confident supporting dyslexic learners; b. Not a lot but I have some elementary understanding / elementary knowledge e.g. I can support a dyslexic learner under guidance; c. Very aware / knowledgeable e.g. I feel confident to support*

dyslexic learners. We also included some choices linked to questions about knowledge and understanding of dyslexia (i.e., Children with dyslexia may show difficulties in other school domains as well (e.g. Maths, PE) not just literacy (e.g. reading, spelling, writing)' with choices a. correct; b. not correct, c. don't know.

The same questions were also administered at the end of the workshop, apart from the ones checking 'Why do you want to learn about dyslexia' and 'What would you find most helpful to learn from these workshops about Dyslexia? Please state three points'. Also, in the post-workshop survey, two new short answer questions were added: "What have you found most helpful from these workshops about Dyslexia? Please state three points" and "Following this workshop, what changes are you going to make in your classroom practice? Please state two points". Surveys were shared before and after the workshop via the JISC platform.

The co-developed workshops

Activity-led workshops for teachers have been found to benefit participants the most (Kolb, 2014). The workshops aimed to cultivate an understanding of the British Dyslexia Association's (BDA) definition of dyslexia. We used two different case studies to make it interactive and practical. Both featured females, as we wanted to demystify the widespread misconception that dyslexia affects predominantly males. We aimed to engage the teachers in putting together strategies targeting literacy, cognitive, and social-emotional challenges. We also provided hand-outs with useful tips and links on effectively supporting a learner with dyslexia (see pictures 2 and 3).

Analyses

We used a mixed methods design to process the quantitative data we gathered from the Likert scale and the qualitative information we gathered from the brief question responses. First, we present the percentages of their responses before and after the intervention, and then we conclude with themes generated from the short answer questions. For the qualitative analyses to gain a deeper understanding of the teachers' beliefs and knowledge we followed Braun and Clarke's (2006) approach to extracting themes from the data.

Results and Discussion

Survey questions

Fifteen questions were asked that required the selection of a choice out of three. In the first question: 'How would you rate your current knowledge of Dyslexia?', it is interesting to see that after the workshop (see Figure 1) no one picked the *not aware at all* category and that the *very aware* choice increased compared to the pre-workshop response. This outcome indicates that even a short three-hour workshop can have a significant impact.

In the questions that followed, we observed that between the pre-workshop responses and the post-workshop ones, there was a steady reduction in the *I do not know* category (see Figures 2-9). This indicates that the workshop's aims to raise awareness were achieved, although not in its entirety, as we will explain next.

<Figures 1, 2 and 3 about here>

As we can see in Figure 3, although the *not correct* choice was not chosen at Time 2 (post workshop); the Time 2 *I do not know* category had a similar response to the Time 1 responses. This could indicate that the workshop did not effectively cover additional topics such as co-occurrence and neurodivergence or at least in so much depth to clarify these more cognitively linked elements of learning and performing. Similarly, in Figure 4, although there is a drop in the *do-not-know choice, there are still individuals who feel* uncertain concerning the role of non-verbal reasoning. We argue this is because we were asking to seek beliefs linked to cognitive elements that are not easily observed in a classroom or understood by someone who has not received training.

<Figures 4 and 5 about here>

From Figure 5, we can deduce that only a few teachers were still uncertain after the workshop about the magnified role of reading accuracy in characterising dyslexia. It is great to see that reading accuracy was not considered the sole criterion after the workshop, as we had stressed in the workshops that other difficulties, like reading fluency, speed, spelling, writing and handwriting, can pose significant challenges. However, a significant number of teachers in the post-workshop survey still believed that the role of reading accuracy is seminal. This is something that more work has to be devoted to in the future. Similar is the observation based on the responses in Figure 7.

<Figure 6 about here>

The impact of accuracy on reading comprehension was significantly acknowledged at the post-workshop seminar but there were still a few that were not sure about the link (Figure 6). Also, the drop in the *do not know* choice between pre- and post-workshop should be highlighted as with all the other questions asked.

<Figures 7 and 8 about here>

It is also interesting that the majority at the end of the intervention believed that children with dyslexia do not always need to have additional phonological difficulties (Figure 8). This could be because teachers might believe that phonological difficulties are primarily associated with phonics (letter-sound associations) rather than memory and processing. As the former can be explicitly taught, it is also an aspect that can be mitigated, but cognitive tasks linked to memory and processing are not easily trained. It is more that the individual needs to be taught compensatory strategies. See also for a discussion on this on teachers' understanding of the cognitive elements of dyslexia in Washburn et al. (2017).

<Figure 9 about here>

It was overall very positive that teachers' responses in the *do not know* choice decreased at the post-workshop survey questions (Figure 9)

Open-short answer questions

The first question asked that required a short answer response was "How long have you been aware of dyslexia?"

The majority of the teachers have been aware about dyslexia many years now. Most of them commented that they are aware for more than 20 years. However, as several teachers commented this *knowledge is more surface rather than deep while they also highlighted the need for continuous training*. This is demonstrated in the quotes below:

"I have never had any formal training about how to best support others with dyslexia."

'New strategies in how to deal with it.'

The second question, in the pre-workshop survey, explored 'why do you want to know about dyslexia?'

The majority responded because they would like to *better understand* their needs and *support* children with dyslexia similarly to Knight, (2018) and Whitebourne et al., (under review). It is also clear that the teachers' recognition of needs and support go hand in hand. This is very positive as support, according to the SEND Code of Practice, begins from recognition of needs and this builds into a continuous cycle of assess- intervene- evaluate (DfE/DoH, 2015).

A selection of quotes that highlight the need for understanding the needs and putting in place appropriate support are presented below:

'To be able to understand to a greater degree how I can support children with dyslexia.'

'SENDCo - I want to understand it more and how to implement support, plus identify.'

It is also important to note the *inclusive ethos* that teachers strongly believe in:

'To help me adapt my teaching to suit all children in my class.'

'How best to support learning in the classroom and small groups.'

Teachers did not only recognise needs of monolingual children with dyslexia but also of bilingual learners. The foreign language teacher below correctly commented on the need to support vocabulary enhancement, which is indeed a critical barrier for second language learners (Proctor *et al.*, 2020).

'I want to improve my practice in supporting dyslexic learners. As a teacher of MFL, I can say that lots of students find the vocabulary content a barrier for them (even though it is an essential part of learning a language, it needn't be a barrier per se) and I would like to be able to remove this barrier more effectively.'

The need for more targeted support was recounted by the SENCo, who felt that the current *practices are not enough*. This also echoes the BDA's past and current concerns *that the government has to ensure funding for diagnostic assessments and targeted school support* (BDA, 2020; 2021; 2023).

'I am a SENCo and I want to help the dyslexic children in our school make better progress. Currently, I don't think we are doing enough.'

Another important issue raised is how difficult it is for someone who does not have challenges to understand people who have challenges, the 'Double Empathy Problem' (Milton, 2012). This is considered to be a two-way communication barrier. To break this barrier, teachers need to be more confident, which can be enhanced by appropriate training. The following quotes raise the issue:

'I would like to develop my knowledge of how it can manifest in others and what support is required. Currently, I would only be confident in supporting a child with needs similar to mine.'

Teachers not only focus their efforts and support on the literacy challenges but also acknowledge the need to look at the emotional consequences of dyslexia (Niolaki *et al.*, 2020) and the range of the needs they present. They place significant value on holistic support of needs as only in that way they can help children to become independent learners.

'To help make material and writing responses easier for my students- so that they can access the curriculum and achieve better results, gain confidence and be resilient'

Finally, the importance of early intervention and support and the fact that TAs are frequently left to deal with children with dyslexia were highlighted as well. The latter stresses the importance of accessible training available to all teaching staff.

'I work with children who have dyslexia so would therefore like to deepen my knowledge to support children earlier and more effectively'

'My role as a teaching assistant sometimes requires me to support the learning of children with dyslexia'

The first post-workshop question seeks to identify the usefulness of the workshops -

What have you found most helpful from these workshops about Dyslexia? Please state three points:

Although the sessions were brief, as we tried to provide as much practical experience and support in an active learning environment as possible in three hours, the feedback was very rich and positive. We supported the teachers in putting themselves in the students' situation, and this was achieved through the case studies simulation activities.

'Understanding the underlying reasons for dyslexia, putting yourself as the teacher in the 'mind' of the dyslexic child, practical teaching tips.'

They appreciated the diversity of the needs in cases presented:

'I found the case studies particularly interesting as the dyslexic learners that I have taught are all very different and have specific areas of strength and weakness. One size does not fit all!'

But they also found the strategies for support helpful even if the time we had to expand on these was not as much as we hoped for.

'Strategies to support and a deeper understanding of what it is like to be a dyslexic learner in a classroom.'

Frequently, as we see above, having the time to share with colleagues and discuss common classroom challenges was greatly appreciated. Some teachers also commented on the importance of taking a positive teaching approach that can be massively beneficial for the learners:

'The importance of being positive about other areas of the curriculum.'

It was also very refreshing to see the teachers acknowledging the need to focus not only on literacy but also on the self-esteem of individuals with dyslexia after the workshop:

'How dyslexia impacts on learning in different ways and can affect self-esteem. How and when to be most effective in providing support to dyslexic learners'.

So overall, even for a brief workshop, we felt that we were able to give a lot to the teachers and help them feel more positive about elements that they felt less certain about before the workshop.

'Thank you very much for such an enlightening training course, pitched at the right level and with useful materials/sign-posting provided for future reference.'

Finally, it was very positive to see teachers thinking about children who might be struggling but also masking their challenges with their amazing strengths.

'Be more aware of pupils who don't have a diagnosis of dyslexia'.

The final post-workshop question asked: *Following this workshop, what changes will you make in your classroom practice? Please state 2 points.* We wanted to see the impact of the workshop in the actual everyday teaching practice.

One of the main take-home messages was the need to provide more wait time, which several teachers in the groups highlighted.

'The breadth of difficulties dyslexia can cause was interesting. The link between language and difficulties learning times tables was useful. Confirmation that individuals with dyslexia require TIME was invaluable validation of my own thoughts.'

The next more frequent strategy they appreciated a lot is scaffolding, repetition and breaking the tasks into smaller manageable steps to support memory. These strategies were suggested as beneficial take-home practices in the previous quotes. Also, multisensory strategies were highlighted as the main tool they will use following the workshop.

'I'm a teaching assistant so I don't have my own classroom as such, but this really got me thinking about using graphics with words a lot more for key vocabulary. For example, teaching GCSE English Language techniques to students, I've started thinking of ways to visually depict those terms and hopefully reinforce them a bit better'.

'1) suggestions to support spelling - visual imagery; 2) Ideas to support reading/decoding; 3)The wider range of dyslexic tendencies which encompasses so many different children.

They also proposed whole classroom inclusive activities; this was highlighted in the next quotes:

'Additional support for certain activities and making some strategies standard for all lessons, e.g. word banks introducing new vocabulary etc.'

They also talked about focusing on strengths as suggested next:

'Specific assistance to dyslexic students with vocabulary learning (as homework task) e.g. reducing the number of words to learn, discussing techniques. Looking to develop the strengths of dyslexic students.'

Similarly for spelling and writing they said that they will adopt teaching spelling in context, use of assistive technology and visual prompts to boost memory.

'Continue to work on spellings in context, not isolation. Closer monitoring of effectiveness of spelling interventions'.

Conclusion

Overall, we felt from both the quantitative and the qualitative data that Teachers, at the pre-workshop phase who had thought that they were less aware, post-workshop presented a powerful and determined attitude due to the knowledge transferred via this co-created project. It was a great strategy to listen to the teachers' needs and build on these to provide a targeted workshop that effectively used the strength of the active learning approach. The most important take-home messages for next-day classroom practice, *wait time, repetition, scaffolding, and multisensory teaching practices have also been* highlighted by research evidence concerning their effectiveness (Niolaiki et al., 2023). Thus, even with a short three-hour workshop, we could make a difference and change attitudes and misconceptions. Our study also, like multiple others, highlighted the need to *raise awareness about dyslexia* not only in initial teacher training but also in continuous teacher development. This is important and useful as despite good intentions there is limited knowledge which affects the information PATOSS members and assessors might want to give to classroom teachers around diagnostic reports and suggestions for support. We hope that with that small-scale study, we will be able to inspire more targeted sessions on SpLDs to follow with teachers.

Thank you for reading 😊

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Mrs Wendy Hawkins, Mrs Lucy Hamilton, Mrs Ingvild Goff and Mrs Claire Penketh are members of the Gloucestershire Dyslexia Association.

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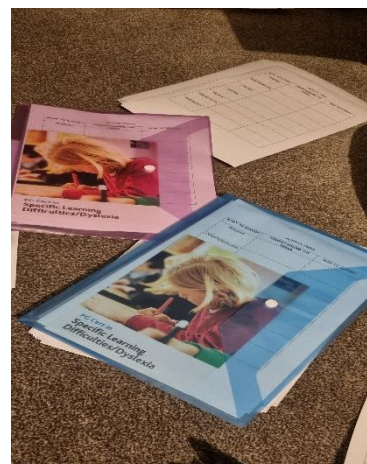
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Picture 1: Handouts given to teachers



Picture 2: The workshop ¹



Note: Teachers orally agreed to a photo of the workshop to be taken and used on social media

Figure 1. How would you rate your current knowledge of Dyslexia?

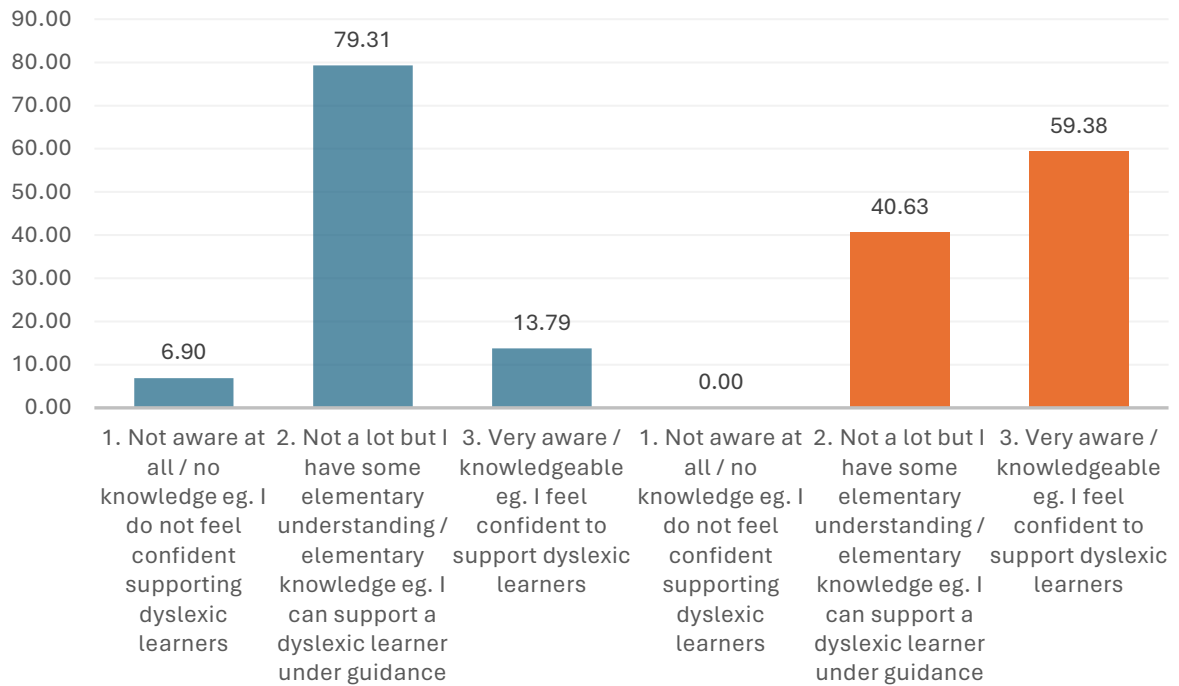


Figure 2. Children with dyslexia may show difficulties in all/other school domains as well (e.g. Maths, PE) not just literacy (e.g. reading, spelling, writing)

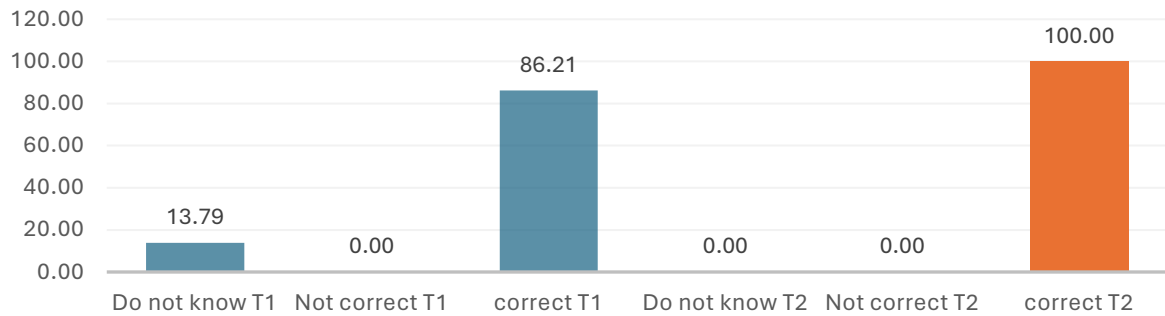


Figure 3. Children with dyslexia may also have other needs (e.g. hyperactivity/impulsivity or autism)

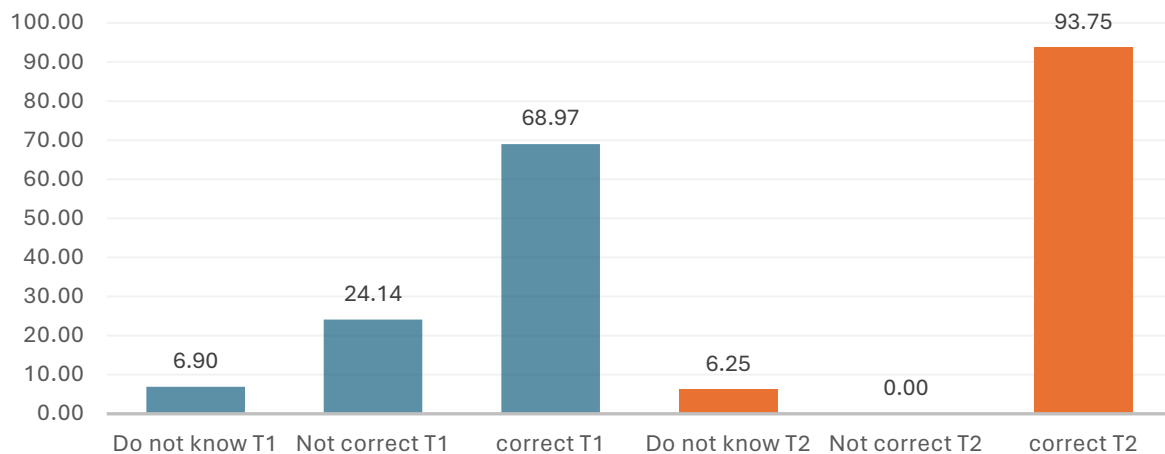


Figure 4. Children with dyslexia always have high non-verbal reasoning

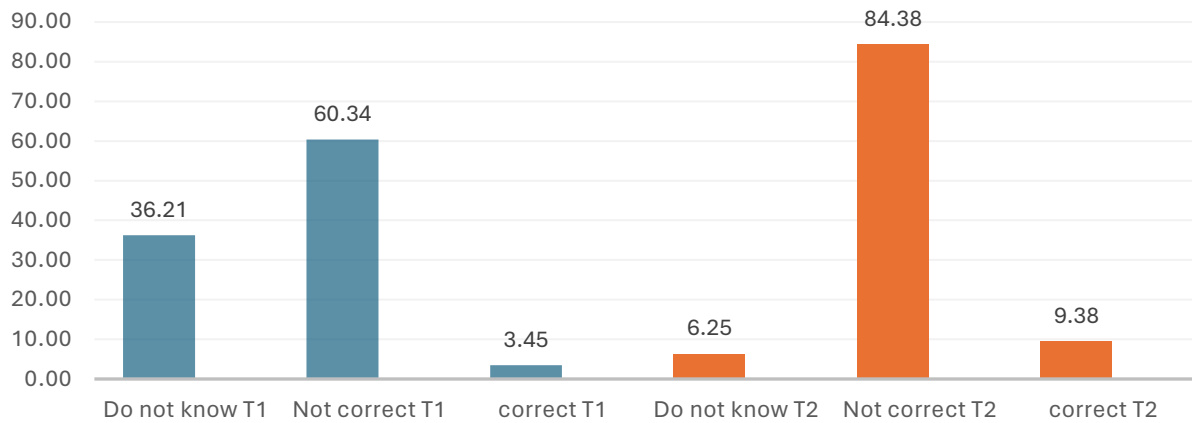


Figure 5. Children with dyslexia always show difficulties with reading accuracy

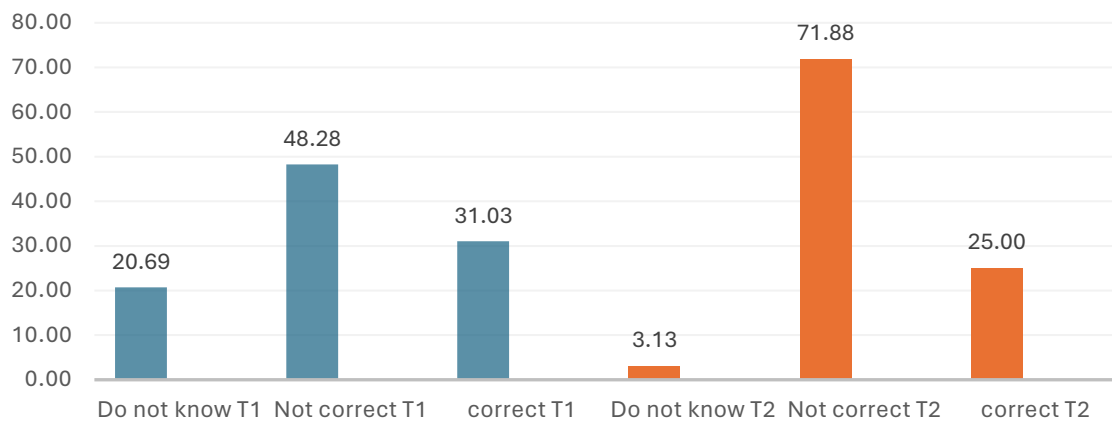


Figure 6. Children with dyslexia may have difficulty with reading comprehension

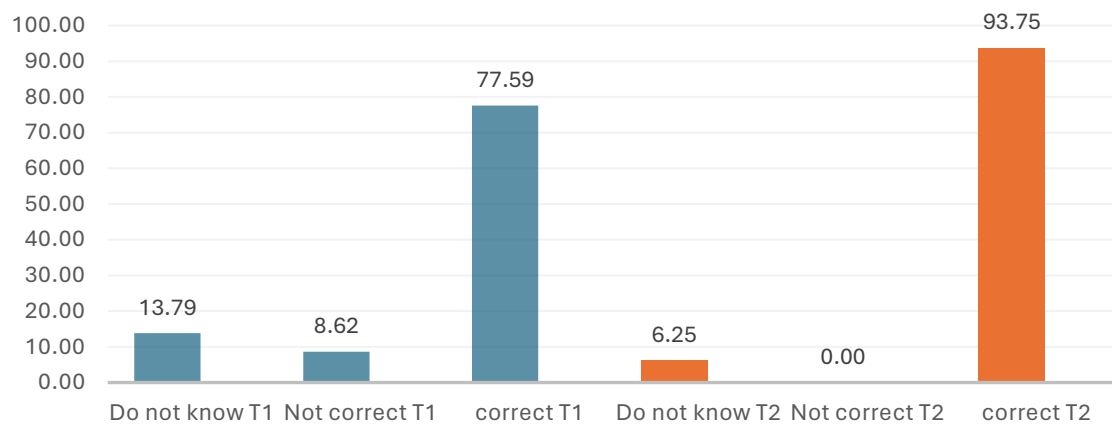


Figure 7. Children with dyslexia always have difficulties with all three skills: reading, spelling and writing.

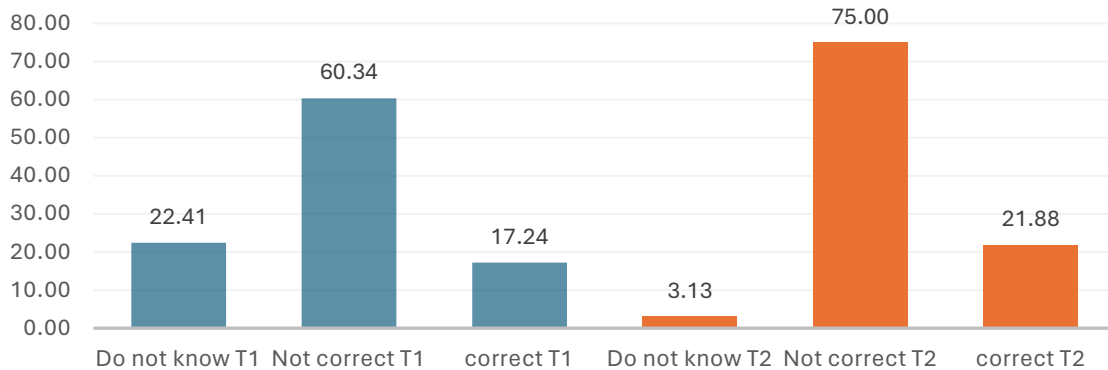


Figure 8. In order to have dyslexia a child/young person always needs to have additional phonological difficulties (difficulties manipulating the sounds of the language).

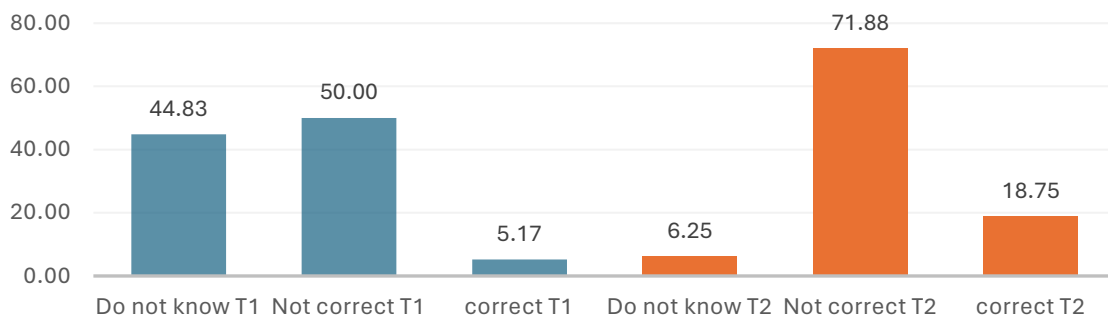


Figure 9. Mean % performance accross questions

