Teachers' and students' views of access arrangements in high stakes examinations

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Introduction

High stakes assessments pose challenges to some students' ability to demonstrate their knowledge and skills. These challenges may stem from assessment features not related to the constructs being measured. In such cases, students' performance may be affected by the access to the assessment, which can obscure the knowledge and the understanding of the content being assessed and be a threat to the validity and fairness of the assessment. To address this, many countries have introduced access arrangements (also known as test accommodations) to support the needs of students struggling with standard assessment procedures.

Access arrangements are pre-exam arrangements that help students with specific needs (e.g., special educational needs, disabilities, temporary injuries) to access the assessment and demonstrate their knowledge and skills by removing unnecessary barriers without changing the assessment demand or reducing its validity. For example, students who cannot concentrate for extended periods or fatigue easily may be awarded extra time to complete their assessments.

Evidence confirming the need for an arrangement (e.g., scores from psychometric assessments for the candidate; samples of the candidate's handwritten work; report from a medical professional outlining how a student's disability or illness is a barrier to the assessment) needs to be acquired by the centres. The evidence of need will vary depending on the special educational needs or disability of the students and on the access arrangement(s) being applied for (see Cambridge Assessment International Education (2022) for more details). Centres must, therefore, undertake the necessary steps to gather the evidence of need and demonstrate that a requested arrangement represents as much as possible the normal way of working for a student. The principle of the arrangement to align with the students' normal way of working aims to ensure that students are not introduced to an unknown procedure or technology during the assessment.[1]

Evaluating access to access arrangements and how effective the arrangements are is important to ensure that the diverse learning needs of students are addressed and that the performance outcomes are a true reflection of students'

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1 Although students with temporary injuries (e.g., a broken arm a week before the exam) can request access arrangements, it is not expected that the approved arrangements in these situations align with the students' normal way of working. Access arrangements due to temporary injuries are out of the scope in this research.

knowledge and skills (Sireci et al., 2003). The provision and effectiveness of access arrangements can be evaluated from multiple angles. In particular, such evaluation should look at: (1) the types of students who are granted access arrangements, (2) the results of assessments when the arrangements are used, and (3) the students' and teachers' perceptions of how well the arrangements are working.

A large body of research has already examined the uptake of access arrangements (overall and broken down by students' characteristics) and their impact on performance. However, evidence regarding students' and teachers' perceptions of how well access arrangements work is rarely gathered. The aim of the research described in this article was, therefore, to gather stakeholders' views on access arrangements. In particular, the focus was on teachers' and students' understanding of the current provision of access arrangements and their perspectives on the strengths and weaknesses of access arrangements (including usefulness, fairness, consistency, implementation, and perceived effectiveness of use).

The research focused on access arrangements provided by Cambridge Assessment International Education (henceforth "Cambridge International"). Cambridge International is a large provider of international education programmes and qualifications for 5 to 19 year olds. They work with more than 10 000 centres in 160 countries around the world and offer pre-exam arrangements for all their qualifications (see Cambridge International, 2022).

In the following, we provide a summary of existing research evaluating access arrangements from the three different angles mentioned above.

Types of students granted access arrangements

There is a large body of research looking at the types of students who are granted access arrangements and the equality of students' access to such arrangements. The research has pointed out that the identification of special educational needs is not a scientific process and that there might not be an unbiased route to the provision of access arrangements. In fact, many studies have found that there is a relationship between the uptake of access arrangements and students' characteristics such as gender, type of school attended, attainment, socio-economic background, ethnicity and being identified as having special educational needs or disabilities (Fuchs et al., 2000; Lerner, 2004; Lindsay et al., 2006; Ofqual, 2020; Twist et al., 2006; Vidal Rodeiro, 2021; Yull, 2015). For example, some of the studies have shown that a disproportionately low number of access arrangements are awarded to students of minority ethnic groups, students who receive free or reduced-price school meals, or have low attainment at school. More recent research (Hutchison, 2021) has also shown a negative effect of attending school in a local authority with high levels of disadvantage; this made students less likely to be identified with special educational needs or disabilities than children of similar backgrounds in more affluent areas.

Impact of access arrangements on performance

The majority of the research looking at the effectiveness of access arrangements is based on experimental studies, often suffering from methodological limitations acknowledged by the authors (e.g., Duncan & Purcell, 2019; Gregg & Nelson, 2012; Liu et al., 2019). Additionally, as most of these studies are conducted in the United States, their results cannot be easily extrapolated to the context of high stakes assessments in other countries.

Furthermore, the practice of providing access arrangements is not without controversy. It is not clear to what extent access arrangements work as intended (i.e., create equity and level the playing field for candidates with disabilities and learning difficulties). Some argue that access arrangements may potentially lead to an unfair advantage for some students, rather than simply levelling the playing field (Elliott & Marquart, 2004; Zuriff, 2000). If that were the case, the test scores of the students with access arrangements would be inflated, which would have a detrimental effect on the validity of the assessment. Others, however, claim that access arrangements provide gains for students with special educational needs and disabilities, but do not seem to unduly advantage them (Cohen et al., 2005; Sireci, 2008). An overview of studies evaluating the effectiveness of some of the most common access arrangements (e.g., extra time; reading assistance; writing assistance; word processor) is given in Vidal Rodeiro and Macinska (2022).

Students' and teachers' perceptions of access arrangements

Research looking at students' and teachers' perceptions of access arrangements is scarce.

In the context of examinations in England, Woods (2007) highlighted that the lack of data relating to the perspectives of students with special educational needs or disabilities, and the perspectives of their parents/carers and teachers, is a particular obstacle to the effective evaluation of access arrangements.

Hipkiss and Robertson (2016) and Woods et al. (2018) have argued that user feedback on provision of access arrangements is particularly important to develop effective arrangements and highlighted the lack of students' perspective within the process of identifying students' needs. In particular, Woods et al. (2018) recommended continuous collaboration between awarding bodies and centres to ensure "*enhanced shared understanding of the purpose, place and limitations of access arrangements*".

Lovett and Leja (2013), who reviewed empirical literature on students' perceptions of access arrangements in the United States, also discussed the importance of students' feedback on the usefulness of access arrangements. They mentioned that, in particular, if students are provided access arrangements that they do not believe to be helpful, they might not want to use them and that students' feedback is needed to determine how well the arrangements are working.

Regarding teachers' perceptions, Meadows (2012) carried out some work to measure teachers' attitudes towards the use of access arrangements for students with special educational needs in public schools in the United States. The data

collected in the study showed varying attitudes among teachers, differing by their position at the school (regular or special education teacher), the level of education taught, and the teacher's education and experience. For example, the research showed that special education teachers had a more positive attitude towards the use of arrangements than regular teachers and there was also a more positive attitude by teachers with lower education levels towards access arrangements. Teachers with positive attitudes tended to use access arrangements correctly and effectively to help improve student learning in the classroom and to improve student performance on examinations.

Data and methods

Data for this research was gathered via an online survey questionnaire. The survey included a mixture of closed and open-ended questions covering the following themes:

- awareness of access arrangements

- resources to provide access arrangements

- students' views on access arrangements

- overall views on access and inclusion.

We sent the survey to centres in eight countries: Indonesia, Italy, Malawi, Malaysia, Myanmar, Oman, South Africa, and Switzerland. In these countries there was a particular interest to find out about the use, implementation of, and views on access arrangements. All centres offering Cambridge International qualifications in each of the eight countries were invited to take part in the survey.

We carried out descriptive analyses for each question. Reponses to open-ended questions were coded and analysed in an attempt to bring together recurring themes.

Findings

There were 258 responses to the questionnaire out of 587 invitations sent, resulting in a participation rate of 44 per cent. A mixture of Cambridge co-ordinators,[2] exams officers, senior management and teachers took part in the research. Their roles in the centres suggested that they were likely to be relatively well informed and able to respond to the survey questions.

Table 1 below shows that around three-quarters of the centres that responded to the questionnaire were in Indonesia (24 per cent), Italy (28 per cent) and Malaysia (26 per cent). The participation rate was highest in Italy, where over half of the invited centres (51 per cent) took part in the research, and lowest in Oman and Malawi, where 27 per cent and 30 per cent of the centres, respectively, responded to the survey.

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2 The Cambridge co-ordinator is the member of staff that is in charge of communications between the centre and Cambridge International. They are usually familiar with Cambridge procedures and carry out the administrative work within the centre relating to Cambridge qualifications.

Table 1: Participating centres, by country.

Country	Number of centres responded	Number of centres invited	Per cent centres (of responses)	Per cent centres (of invitations)
Indonesia	62	133	24.0	46.6
Italy	73	142	28.3	51.4
Malawi	6	20	2.3	30.0
Malaysia	66	160	25.6	41.3
Myanmar	4	9	1.6	44.4
Oman	8	30	3.1	26.7
South Africa	32	77	12.4	41.6
Switzerland	7	16	2.7	43.8
Total	*258*	*587*		*44.0*

Awareness of access arrangements

The first section of the survey investigated the respondents' awareness of access arrangements and the most common access arrangements used by centres offering Cambridge International qualifications.

Table 2 shows the responses to the question "Are there provisions in the education system of your country for access arrangements in examinations?". Just below 60 per cent of the respondents said that they were aware of such provision, but almost 30 per cent did not know. Only 13 per cent of the respondents mentioned that there was no provision for access arrangements in the education system in their country. Table 2 also shows the answer to the question broken down by country. The countries with the highest percentages of respondents being aware of provisions for access arrangements were South Africa, Italy and Malaysia. The highest lack of awareness was in Indonesia and Myanmar.

Table 2: Are there provisions in the education system of your country for access arrangements in examinations?

	All (N=258)	Indonesia (N=62)	Italy (N=73)	Malawi (N=6)	Malaysia (N=66)	Myanmar (N=4)	Oman (N=8)	South Africa (N=32)	Switzerland (N=7)
Yes	58.1	30.6	69.9	33.3	65.2	0.0	62.5	81.3	57.1
No	13.2	17.7	12.3	33.3	13.6	25.0	12.5	3.1	0.0
Don't know	28.7	51.6	17.8	33.3	21.2	75.0	25.0	15.6	42.9

Figure 1 shows the access arrangements available to request (in the centres that were aware of access arrangements provisions).
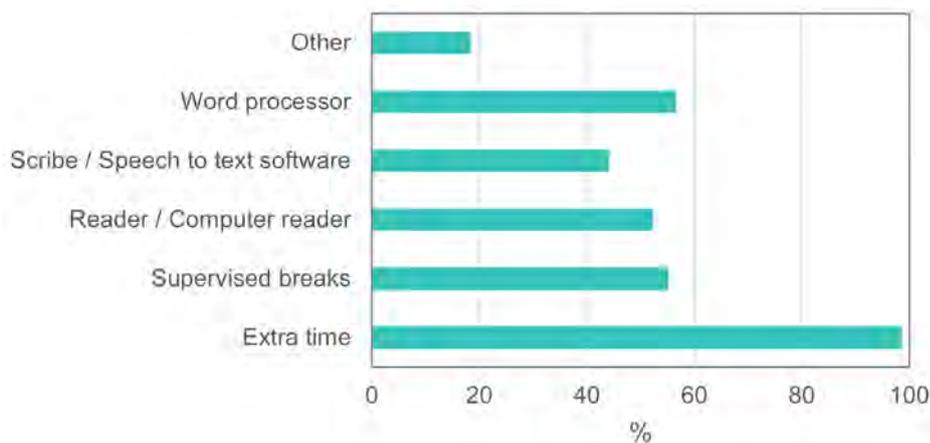
Figure 1: What access arrangements are available to request for your students for any examinations? (*N* = 136).

Extra time was available in 98.5 per cent of the centres. Using word processors, readers, or having supervised breaks was available in more than half of the centres. Just below 20 per cent of the respondents said that other access arrangements were available to request in their centres. These included coloured overlays, separate invigilation, colour naming and prompters.

The remaining questions in this section of the survey related to the provision of access arrangements for Cambridge International examinations. For details on all the different access arrangements (e.g., what they are and how to use them), see the *Cambridge Handbook* for centres (Cambridge International, 2022). Note that not all respondents answered all questions.

When asked the question "Do you know that Cambridge International offers access arrangements for their examinations?", 93 per cent of the respondents to the question (135 out of 145) gave a positive response. Among those who were aware of Cambridge International's offer, 75 per cent (*N* = 101) had applied for access arrangements for their students at some point. The majority of these centres had less than 5 per cent of students with access arrangements, although 11 per cent had between 6 per cent and 10 per cent of students with arrangements. Very few centres had higher percentages (only four centres reported having more than 10 per cent of their students with access arrangements).

Centres that never applied for access arrangements for Cambridge International examinations (*N* = 34) were asked the reasons for that. All respondents to this question (27 out of 34) selected as a reason for never having applied for access arrangements for Cambridge International examinations "None of the students required access arrangements". It is encouraging that they did not select any of the other available options (e.g., the school does not have the resources to provide access arrangements; the school did not know how to apply for access arrangements; the school is not able to provide the required evidence of the students' need for the access arrangements; the school lacks confidence to make judgements about students' needs).

Resources to provide access arrangements

The questions in this section of the survey were only presented to those participants who knew that Cambridge International offered access arrangements for their examinations (*N* = 135). They were related to the availability of the centre resources to either request or provide access arrangements.

The first question asked participants if their centres had the appropriate resources to provide the access arrangements required by their students. Figure 2 shows that the vast majority of the centres did not have resourcing issues: 94 per cent of the respondents agreed or strongly agreed with the statement "My school has appropriate resources to provide the required access arrangements". Only eight respondents disagreed with the statement. These respondents were in centres in Malaysia, Oman and South Africa. There were no reported resourcing issues in centres in Indonesia, Italy, Malawi and Switzerland. No participants from Myanmar provided an answer to this question.
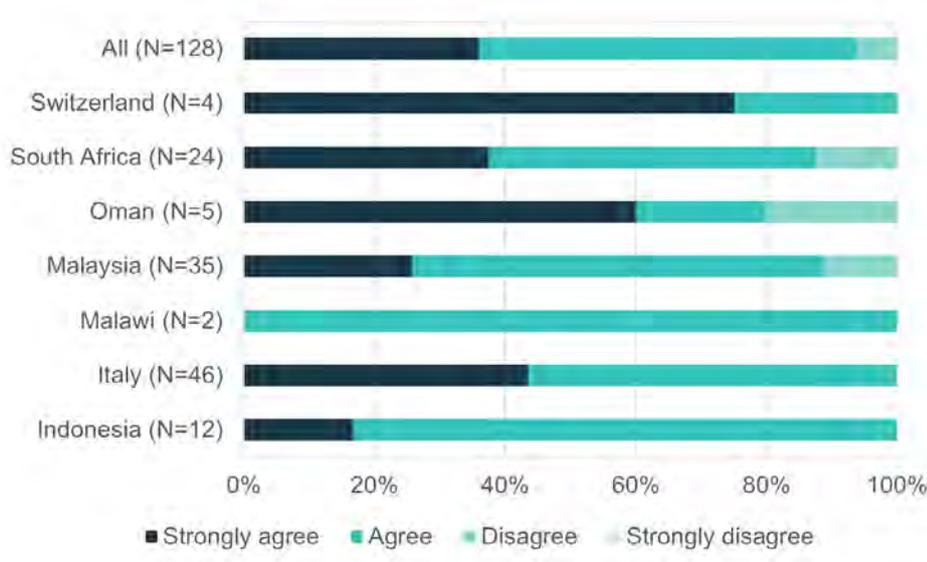

Figure 2: My school has appropriate resources to provide the required access arrangements.

Only those respondents who did not agree or strongly agree with the above statement were asked about the specific resourcing constraints with regard to providing access arrangements. Their answers included money, lack of staff, lack of physical space and technology issues as the main resourcing constraints.

Figure 3 shows that the vast majority of the centres did not experience resourcing problems when trying to provide Cambridge International with the required evidence to apply for access arrangements. 96 per cent of the respondents agreed or strongly agreed with the statement "My school has appropriate resources to provide the required evidence to apply for access arrangements". Only five respondents disagreed with it. These respondents were in centres in Italy and Malaysia. There were no reported resourcing issues in centres in any of the other countries. As previously, no participants from Myanmar provided an answer to this question.
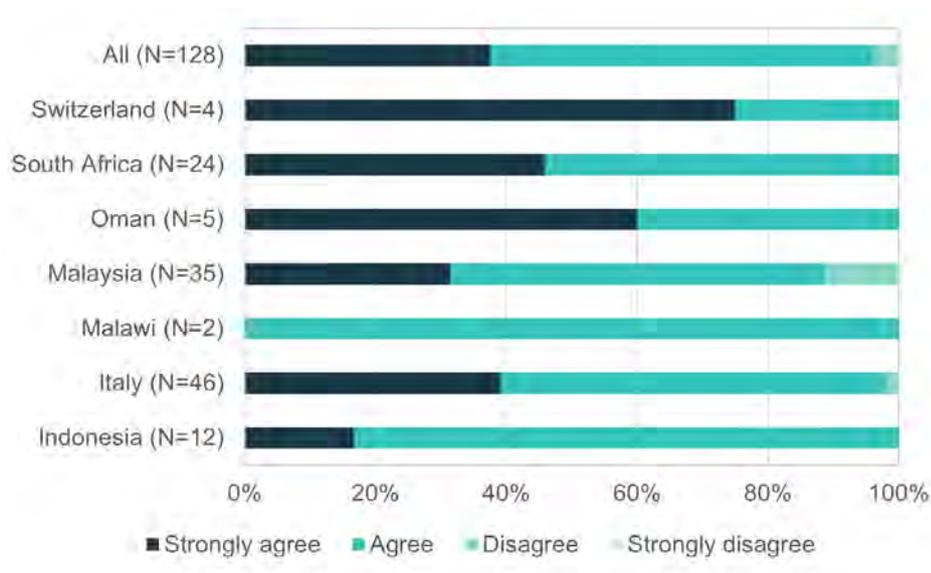
Figure 3: My school has appropriate resources to provide the required evidence to apply for access arrangements.

Students' views on access arrangements

Questions in this section were asked only to those participants who knew that Cambridge International offered access arrangements for their examinations (*N* = 135). They related to students' views on access arrangements, with participants asked to rate their agreement with several statements using a four-point scale from strongly agree to strongly disagree. To avoid data protection and consent issues in different countries, teachers (instead of students) were asked to answer the questions based on their observations and/or feedback from their students. No participants from Myanmar provided answers to questions in this section.

Overall, the majority of the responses confirmed that the alignment principle (that is, students only used the access arrangements in their examinations if that was their normal way of working in the classroom) was met. However, there were 20 centres where that was not the case (see Figure 4). Respondents also confirmed that, when access arrangements are requested, students use them in their examinations. Only a small number of centres in Indonesia and Italy disagreed with the statement "Students use the access arrangements that have been requested for them and approved for them".
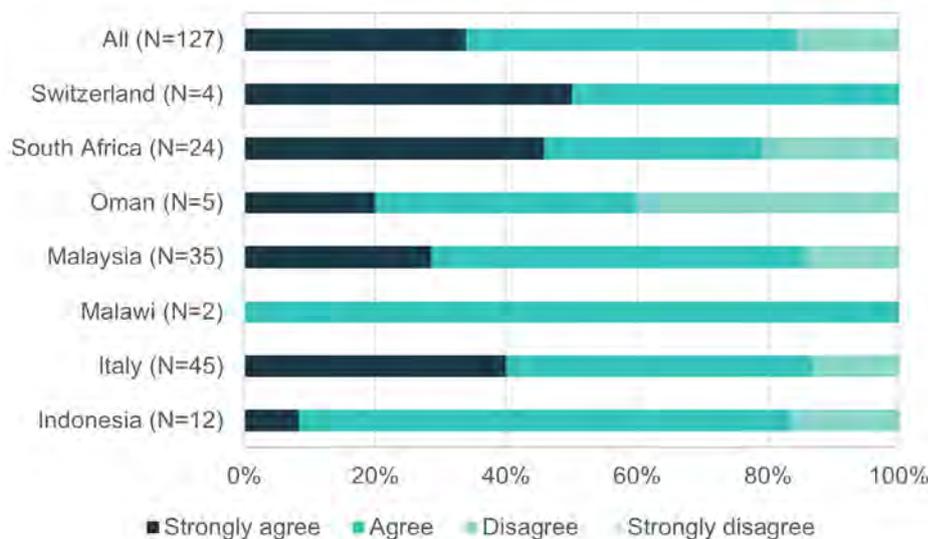
Figure 4: Students only use access arrangements in their examinations if that is their normal way of working in the classroom.

Teachers were next asked if students awarded access arrangements for their examinations find them useful. Their responses, summarised in Figure 5, were very reassuring. All but one respondent provided positive replies (61 per cent agreed and 38 per cent strongly agreed with the statement "Students awarded access arrangements find them useful").
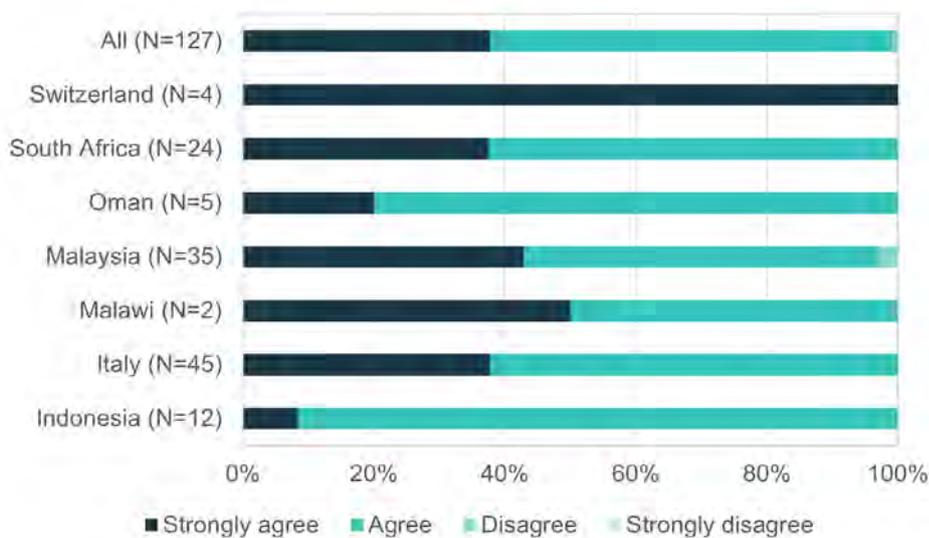

Figure 5: Students awarded access arrangements find them useful.

The majority of respondents, based on students' feedback or on their own observations, did not think that students awarded access arrangements feel ashamed or embarrassed because they need assistance in their exams (Figure 6): 66 per cent disagreed with the statement "Students awarded access arrangements feel ashamed or embarrassed that they need assistance with exams", and 17 per cent strongly disagreed. However, 22 respondents, that is 17 per cent of the respondents, agreed with the statement. The percentage was higher in Italy and Malaysia than in the other participating countries in the survey.
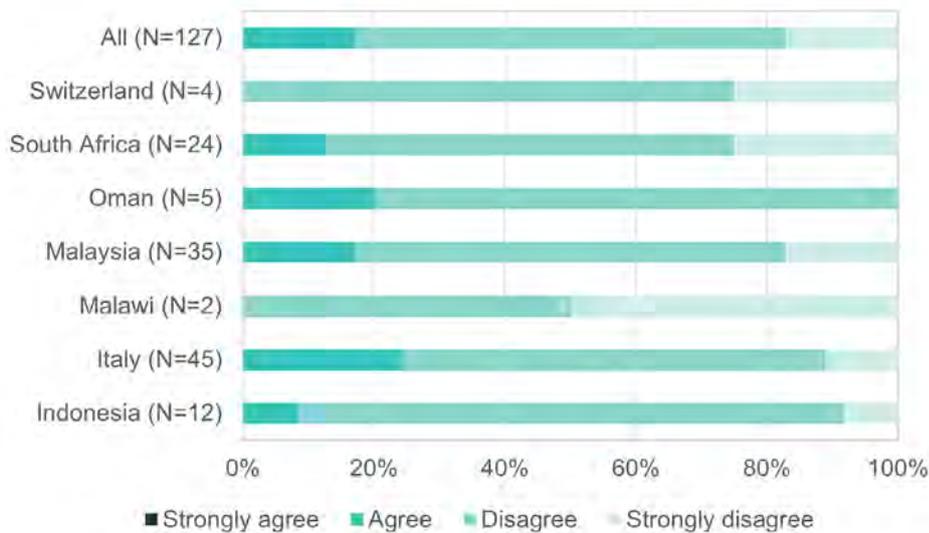
Figure 6: Students awarded access arrangements feel ashamed or embarrassed that they need assistance with exams.

Finally, Figure 7 shows that the majority of respondents to the questionnaire disagreed with the statement "Students without access arrangements regard such arrangements as unfair" (70 per cent disagreed and 22 per cent strongly disagreed). There were 10 centres that reported the opposite view. Such centres were in Indonesia, Italy, Malaysia, South Africa and Switzerland.
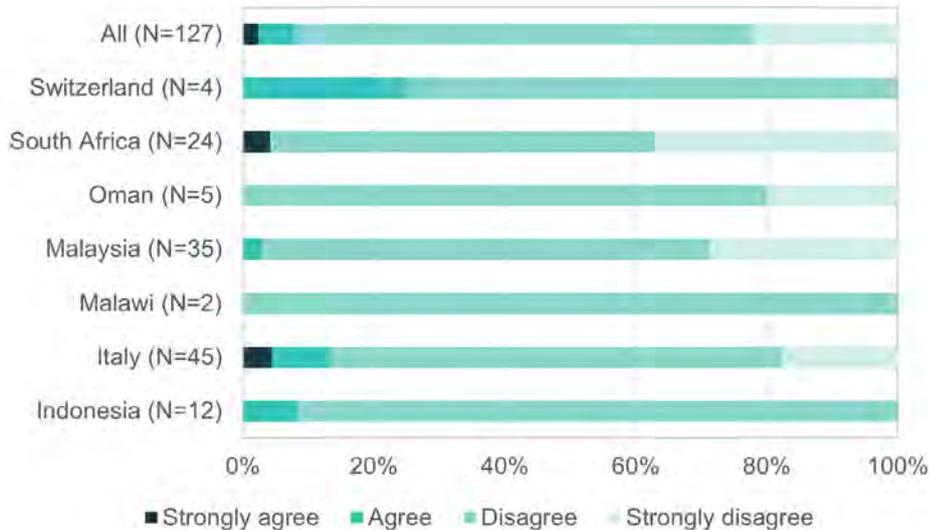

Figure 7: Students without access arrangements regard such arrangements as unfair.

To better understand the responses to the questions in this section of the survey questionnaire and to gather any further viewpoints, participants were asked if there was anything that they would like to tell us about their students' views on access arrangements. There were 18 participants who left some comments.

Several respondents reported that students understood why some have access arrangements and others do not and that students are usually supportive of their peers. It was mentioned that the centre culture and ongoing practices of providing support through the year via different ways of working helped encourage this. This understanding from other students was also helped where the local system allowed access arrangements, as this normalised the concept. It was noted, however, that some cultures stigmatised learning difficulties making parents reluctant to have their child assessed, and that some students felt embarrassed and either refused access arrangements or had to be persuaded to accept them.

A couple of the further comments related to the use of extra time in examinations. Participants mentioned that students with dyslexia did not use (or need) the extra time awarded to them and that, in some cases, students awarded extra time do not use it unless encouraged by the teachers.

Overall views on access and inclusion

The final section of the survey asked all participants about their views on access and inclusion more generally, whether or not their students used access arrangements for their Cambridge International examinations. All participants were asked to rate, from strongly agree to strongly disagree, several statements and were given the opportunity to explain their answers or provide comments in a free-text question at the end.

Figure 8 shows the agreement of the respondents with the statement "Access arrangements are a fair means for helping students with disabilities and/or special needs". Only one centre, in South Africa, disagreed with the statement. Overall, a higher percentage of centres strongly agreed (53 per cent) than agreed (47 per cent) with the statement.

Just below 50 per cent of the respondents did not agree with the statement "Students who need access arrangements in exams should be taught in special education schools" (see Figure 9). A further 27 per cent strongly disagreed. However, this overall pattern was not seen in all countries. For example, in Indonesia and Malaysia high percentages of participants (50 per cent and 32 per cent, respectively) agreed with the statement above. In contrast, in Italy, only 4 per cent of the participants did.
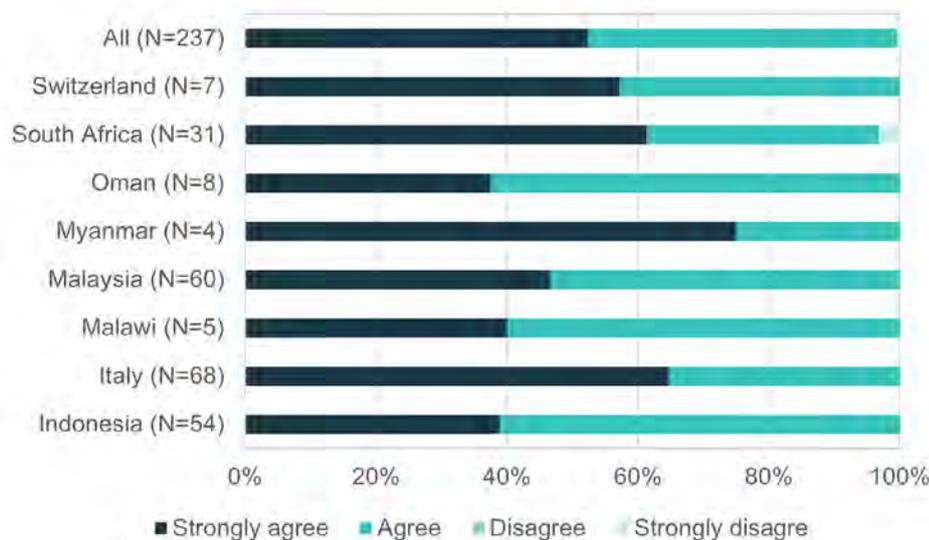
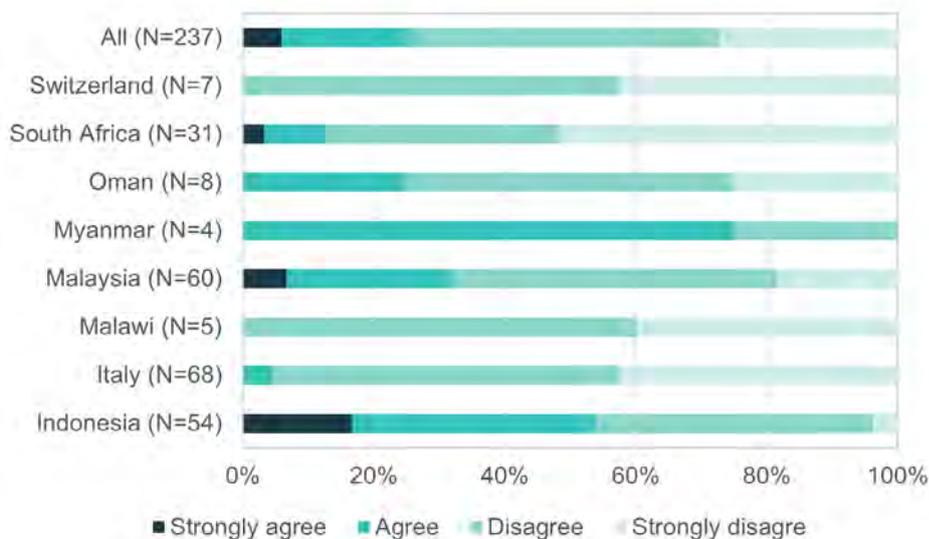**Figure 8: Access arrangements are a fair means for helping students with disabilities and/or special needs.**

Figure 9: Students who need access arrangements in exams should be taught in special education schools.

Regarding access arrangements giving students with disabilities and/or special needs an unfair advantage, Figure 10 shows that, in general, participants did not think that was the case. Over 50 per cent of the participants disagreed with the statement "Access arrangements in exams give students with disabilities and/or special needs an unfair advantage", with a further 34 per cent strongly disagreeing. There was a small minority of respondents who believed that access arrangements provide an unfair advantage. These respondents were mainly in Indonesia and Malaysia.
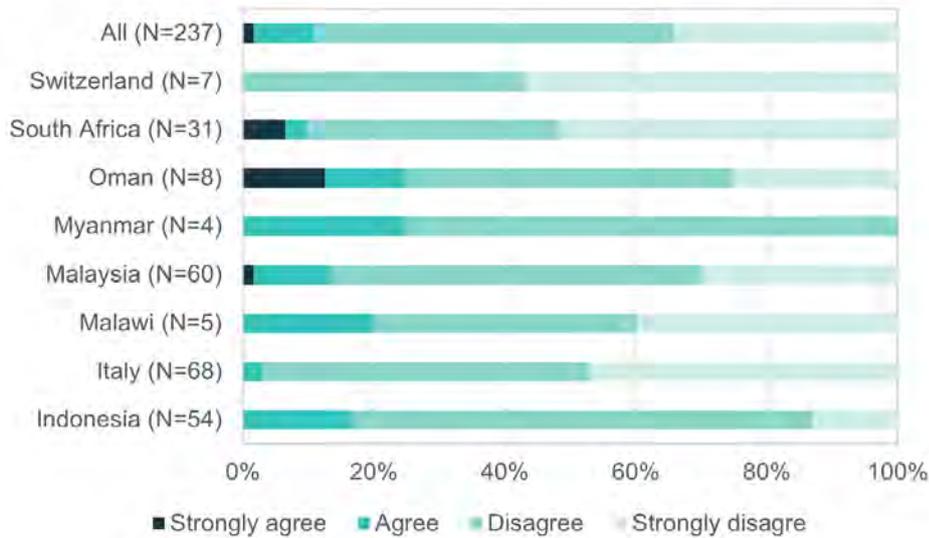
Figure 10: Access arrangements in exams give students with disabilities and/or special needs an unfair advantage.

The vast majority of the respondents thought that access arrangements make a difference in the education of students with special needs and/or disabilities and that they help provide an accurate picture of students' abilities and knowledge. Italy and Malaysia were the countries with the highest numbers of respondents disagreeing with the above two statements.

Over 70 per cent of the respondents to the survey were not in agreement with the statement "Some students who have access arrangements in place do not really need them" (Figure 11). However, it is concerning that almost 30 per cent of the respondents (67 participants, mainly in Indonesia, Malaysia and Italy) thought that students granted access arrangements for their examinations do not need them.
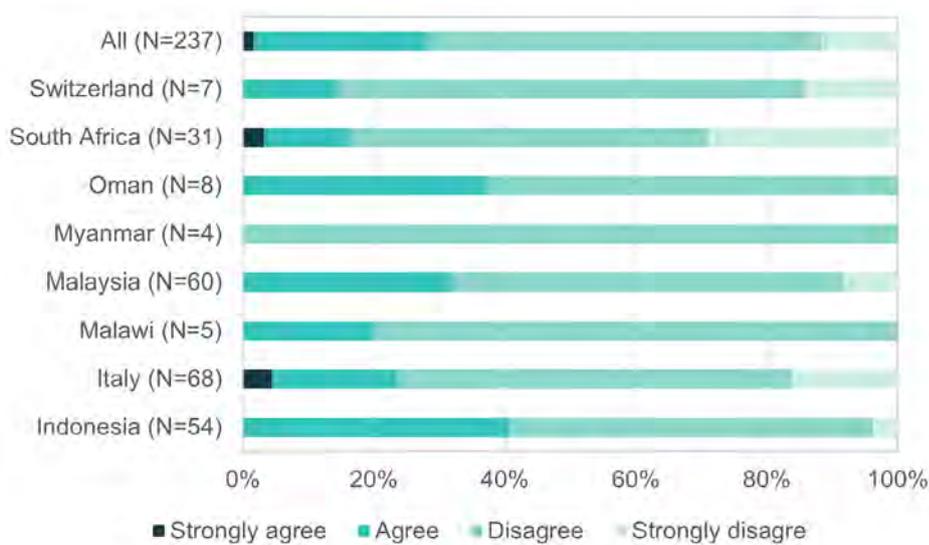

Figure 11: Some students who have access arrangements in place do not really need them.

Finally, we asked participants if they wanted to add any further comments about their views on access arrangements. There were 33 participants who responded to this question. There was a wide range of comments, which have been grouped into "positives", "issues" and "suggestions".

Positive points included that access arrangements allowed students with difficulties to show what they can do and that the centres are generally happy with access arrangements provision.

Issues included cost hindering professional assessments (e.g., to gather evidence of need), not understanding the guidance to request or deliver access arrangements, and special educational needs teachers reportedly being too generous. Some of the respondents also mentioned that providing access arrangements can be hard if the centre only needs them rarely and that special educational needs are a taboo topic with parents/society.

Respondents made suggestions relating to additional guidance (e.g., when arrangements are necessary; how to request arrangements) and exams officer training. Some further points from participants suggested a cautious view of access arrangement use (e.g., that it should only be given where really needed, that they were not "a must"). Three participants commented that students needing access arrangements should be in special needs schools.

Discussion and conclusions

Using a survey questionnaire, the present study reported on the views of 258 centres in eight countries around the world regarding awareness and views of access arrangements for students with special educational needs taking Cambridge International examinations.

Despite some variation within and between countries, the levels of awareness and provision of access arrangements found in this research are quite reassuring. As Griffiths and Woods (2010) mentioned "*awareness and availability of access arrangements may also support flexibility of teaching and learning opportunities for students experiencing special educational needs*". This is important as inclusion of students with disabilities or special educational needs into general education settings means that they would receive access to the curriculum and assessments through the use of access arrangements.

Lack of resourcing to provide access arrangements in Cambridge International centres usually related to staffing or physical space needs to implement/deliver the access arrangements, to the cost of gathering the evidence of need, and to technology. Limited resourcing might cause centres to have thresholds for eligibility for access arrangements. For example, Woods et al. (2018) reported that, in the English context, there were numerous indications that resource constraints were inhibiting the process and the identification of students with special needs and therefore not having the appropriate provision of access arrangements. However, an effective access arrangements system should take as its starting point the individual student, not resourcing issues.

For arrangements to be beneficial, students need to be familiar with them. In fact, lack of practice in the use of the access arrangements could make students reluctant to use them during the examinations (Woods, 2007). This research confirmed that the access arrangements for Cambridge International examinations reflected the student's normal way of working in the classroom.

Previous research has shown (e.g., Bolt et al., 2011; Finn, 1998; Lewandowski et al., 2014; Sharoni & Vogel, 2007) that access arrangements are a positive feature of the services that awarding bodies provide to support students with special educational needs or disabilities and that access arrangements make students feel more comfortable and relaxed when taking the tests. Indeed, Lovett and Leja (2013) reported that, by removing access barriers to the tests (e.g., time limits or settings with distractions), access arrangements make students' testing experiences more positive, and Woods et al. (2010) and Elliott and Marquart (2004) mentioned that the use of access arrangements reduced students' experience of exam anxiety, thus leading to improved performance. Other research, has shown, however, that although arrangements such as extra time or rest breaks would benefit students, other access arrangements were not seen as having a particularly positive effect (Lewandowski et al., 2014) or could be distracting (Woods, 2007).

The majority of survey respondents, based on students' feedback or on their own observations, reported that students awarded access arrangements found them useful and did not feel ashamed or embarrassed by their need for assistance in their exams. Moreover, students without arrangements did not think that arrangements provided an unfair advantage. This contrasts with findings in previous research where students regarded access arrangements as "cheating" or felt embarrassed to be seen using them (e.g., Woods, 2007; Woods et al., 2010).

Teachers' attitudes and beliefs have a powerful influence on how successfully inclusive education practices (e.g., the use of access arrangements in exams) are implemented. Positive attitudes towards inclusion are, according to previous research, among the strongest predictors of the success of providing equal opportunities and access for all students (e.g., Alghazo & Gaad, 2004; Forlin et al., 2008; Forlin et al., 2011). The final section of the survey showed that views on access and inclusion were, overall, positive. The majority of the respondents did not think that students who need access arrangements in exams should be taught in special education schools. This resonates with recent policy changes, which have led to the integration of students with special educational needs or disabilities within mainstream schools so that they receive the same education and opportunities as their peers. Meadows (2012) reported that many schools have adapted to meet the distinctive needs of the individual students. As a result, students with disabilities have been moved from separate, special education classrooms, into general education classrooms where they receive access to the general education curriculum through the use of access arrangements.

Recently, in education systems around the world, there have been moves towards making assessments as inclusive as possible, rather than improving "access" through reasonable adjustments and there has been some research looking at alternatives to some of the current access arrangements. For

example, Lewandowski et al. (2014) suggested that increasing the time allowed in assessments will increase accessibility beyond the provision of specific access arrangements. "Universal test design" approaches that would be fair and valid for all students should also be considered. Examples of the requirements for universally designed assessments are: accessible, non-biased test items; simple, clear and intuitive instructions and procedures; maximum readability and comprehensibility. Future research could investigate further alternatives to the use of access arrangements that provide all students with the opportunity of equal access to the assessment and of displaying their full knowledge and skills.

In conclusion, teachers' views on access arrangements should be gathered more regularly. This would provide evidence for timely and effective evaluation of the provision, the administration and the impact of access arrangements. Students' (and parents') views are also important and, although more difficult to gather due to access and consent issues should also be gathered as frequently as possible.

Acknowledgements

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