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Using Adjustments to Support the Learning and Assessment Needs of Students with Disabilities: Macau and Mainland China Teachers' Report

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ABSTRACT

Adjustments are considered necessary for students with disabilities to be fully included in classroom instruction, classroom assessment and external accountability tests. The 67 item Checklist of Learning and Assessment Adjustments for Students (CLAAS), translated for the Chinese community, was used by 74 teachers from Macau and Mainland China to document their application of adjustments for 319 students with special educational needs across these three settings. Results indicated consistently large gaps between adjustment use in classrooms compared with national tests, with the allowable adjustments for public testing reportedly used very little. Findings also provided evidence for the content validity of the checklist for teachers of students with disabilities in China and its utility in documenting applied adjustments. This study also indicates the potential for CLAAS to provide teachers across China with a comprehensive list of adjustments, to reflect on and review adjustment decision-making and assessment protocols for all students.

KEYWORDS

Adjustments; adjustment gaps; assessment; checklist; China; instruction; national tests; valid test results

Introduction

Teachers routinely provide students, especially students with disabilities, an array of supports to enhance their access to learning and activities during classroom instruction. When it comes to classroom assessments and public testing, however, similar levels of support are often not provided and, in some cases, may not be permissible in a given examination per assessment policies. In the present study, we examined how teachers in Macau and in other regions of the People's Republic of China provide students with disabilities adjustments across learning and assessment settings.

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Accessibility and Adjustments to Enhance Instruction and Assessments

Accessibility is a necessary condition for effective learning and fair testing. Accessibility is defined as the extent to which a product, environment or system eliminates barriers and permits equal access to all components and services for all individuals. To the extent that essential features or components of instruction, instructional materials and tests are not accessible to any portion of the student population, learning is likely to be incomplete and inferences made from observations and test results likely inaccurate (Elliott & Kettler, 2015). Article 3 of the United Nations Convention on the Rights of Persons with Disabilities Convention enshrines accessibility as one of the treaty's eight general principles (United Nations, 2006). Accessibility provides a means of empowerment and inclusion for people with disabilities.

The United Nations Convention requires signatories to provide inclusive education to all students with disabilities. Inclusive education includes reasonable accommodation of disability and individualised supports as components of non-discriminatory access to general education. In line with the principles of accessibility, adjustment strategies and tactics are often implemented by teachers to support the learning and testing needs of students with disabilities. In Australia, adjustments are defined as the 'changes, supports or modifications that can be made to enable all students to learn and demonstrate: what they know and what they can do with what they know' (Department of Education, Training and Employment [DETE], 2015). In some countries such as the United States, adjustments are referred to as adaptations (AERA, APA, & NCME, 2014), while in other countries, the term accommodations is used. Reasonable accommodation is defined within the Convention on the Rights of Persons With Disabilities as 'necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms' (United Nations, 2006, p. 4). Appropriate adjustments should increase access for a student in the classroom and result in a more accurate indication of what a student knows and can demonstrate in a given subject matter area, such as mathematics or language arts.

Educational and Adjustment Policies for Students with Disabilities in China

Education in Mainland China is predominately a system of public education run by the Ministry of Education. All children must attend school for at least nine years, known as the nine-year compulsory education, which the government funds. It includes six years of primary education, starting at age six or seven, and three years of junior secondary education (middle school) for ages 12–15.

The 1985 National Conference on Education recognised the importance of special education, with a focus on programmes for gifted children and for students who have learning difficulties. While gifted children were allowed to skip grades, children who learned at a slower pace were encouraged to reach minimum standards, although those who did not maintain the pace seldom reached the next stage. For the most part, children with severe learning problems and other special needs were the responsibilities of their families. While extra provisions were made for blind and severely hearing-impaired children, special schools enrol fewer than 10% of all eligible children in those categories.

Deng and Harris (2008) provided an overview of the introduction of mainstreaming and inclusion to China in the late 1980s. A national movement on inclusive education called 'Learning in Regular Classrooms' (LRC) was introduced in response to domestic need and the international trend as the major initiative to serve students with special educational needs, mainly referring to children with intellectual disabilities, visual impairments and hearing impairments (Deng & Poon-McBrayer, 2004). In 1990, there were 105,000 students with disabilities in school with only about 18% of them placed in general education classrooms. A 2004 Ministry of Education report documented that in 1996–1997, 55.7% of students with special needs were educated in mainstream schools (Center on International Education Benchmarking, 2016). By 2003, Learning in Regular Classrooms (LRC) programmes served approximately 67% of all students identified with disabilities (364,700) in regular schools (Ministry of Education of China, 2003). While these data indicate a move to inclusive education, the quality and accessibility of LRC is not known.

In 1990, the Law on the Protection of the Disabled was approved, and revised in 2008. In order for this Law to guarantee the rights of the disabled to basic education, the State Council in 1994 issued the Regulation on Education of the Disabled that stipulated State obligations to educating those with a disability, and that government at all levels should strengthen leadership, planning and development of education for the disabled, and increase financial inputs to improve educational provision for students with disabilities (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2011). In 2007, it was estimated that 223,000 school-age students with disability were not in school (UNESCO, 2009). In 2009, China had 1672 schools for special education, with a total of 47,466 staff (37,945 full-time teachers) and 428,125 students enrolled (UNESCO, 2011). By 2014, China had 2,000 schools for special education, with a total of 60,000 staff (48,125 full-time teachers) and 394,870 students enrolled (National Bureau of Statistics [NBS], 2016). UNESCO (2009) reported that 54% of teachers in special education had a special education qualification. With this level of trained specialist teachers, concerns have been expressed regarding the quality of instruction to students with Special Educational Needs in mainstream classrooms because of lack of expertise, support and resources, and effective assessment measures (Deng & Pei, 2009). More recently, poor quality of instruction was blamed on 'a lack of specialists, a shortage of personnel, inadequate funding, and limited technology' (Wang & Feng, 2014, p. 663).

While China is a signatory to the United Nations Convention on the Rights of Persons with Disabilities, criticism has been raised by Hernandez (2008) that even though China has adopted laws that encourage education for all, inclusive education is not mandated, universal education is not provided, and both funding and the teacher force are not sufficient to be able to deliver these promised outcomes. In terms of reasonable adjustments, Article 24 of the Convention requires signatories to provide reasonable accommodations to meet the requirements of students with disabilities, to support them to facilitate effective education and provide individualised support measures in environments that maximise academic and social development. Hernandez called for China to fulfil its obligations by revising existing and inadequate domestic laws to comply with the Convention, enforcing these laws and building capacity by meeting funding needs and teacher training requirements.

In 2011, the People's Republic of China issued a People with Disabilities Education Ordinance that addressed the points raised by Hernandez (2008). Clause 20 outlined how the course design, syllabus and text resources should be suitable for students with disabilities. It also indicated the responsibilities of examination and approval of these elements by the educational

administrative department of the government at or above province level. Clause 21 outlined how appropriate adjustments can be made on the learning requirement for courses, syllabus and text resources. Finally, Clause 41 stipulated that teacher training colleges and universities should arrange required and selective courses on special education within their programme plans so that pre-service teachers could master the requisite essential knowledge and skills about special education to meet the needs of special students in the regular classroom.

In 2015, further regulations were issued by the State Council outlining a number of adjustments that could be reasonably applied for people with disabilities completing the National Higher Education Entrance Examination (People's Republic of China's, 2015). These adjustments included those for students with vision impairment (e.g. use of braille paper, large font size), hearing impairment (e.g. use of auxiliary devices), physical impairment (e.g. use of specially designed tables) and for students with other special educational needs (e.g. supportive guide, extra time). Additionally, the China Disabled Persons' Federation announced a pilot scheme on the implementation of adjustments to support classroom learning for special students studying in a normal class. Clause 14 outlined acceptable adjustments such as adapting text books, content of courses, alternative teaching plans and syllabus. While these regulations and ordinances have been published, the actual uptake and practices of these adjustments by teachers of students with SEN is not known. Other components of inclusive education, such as training mainstream teachers in special education is being put into practice, as indicated by the teacher respondents in this study.

Special Education in Macau

Formerly a Chinese Territory under Portuguese Administration, Macau is now a Special Administrative Region of China with a constitution (Basic Law of Macau) promulgated by China's National People's Congress on 31 March 1993 and was in effect on 20 December 1999. Most of the schools in Macau are private or subsidised schools, with only a few government or public schools. A basic 15 years compulsory, free education is offered to those pupils who have been enrolled at schools that have met requirements stipulated by the government. Portuguese may be used as a medium of instruction or taken as a compulsory subject in Macau schools.

As prescribed by the Basic Law of Macau, Chapter VI Article 121, the government of Macau shall, on its own, formulate policies on education, including policies regarding the educational system and its administration, the language of instruction, the allocation of funds, the examination system, the recognition of educational qualifications and the system of academic awards so as to promote educational development. Legislation regarding special education was completed in 1996. The Macau Education and Youth Bureau conducted a round of consultations in 2004 that saw inclusive education as one of the resulting major initiatives. This led to further legislation for special education, giftedness and inclusion in 2006. In Macau schools, depending on the severity of disabilities of students, the schools provide inclusive classes, resource classes and special education classes. In a territory-wide survey on reviewing the special education in Macau (Sin, Lui, Yan, & Ho, 2012), the challenges and difficulties of special education and inclusion in Macau schools were identified. The recommendations initiated a wide range of practices and teacher training in schools with a large number of students with special educational needs. Among the barriers to curricular support, adjustments in learning and assessment were identified as concerns.

The number of students being taught in schools with inclusive practices increased from 157 in 2004, to 692 students (37 schools) in 2013 and 949 students (44 schools) in 2016. According to the Education and Youth Affairs Bureau of Macau ([EYABM] 2016), during the semester 2015–2016 in Macau, 1592 students with special educational needs were enrolled in 54 schools across the three different categories of school. These include 44 schools with inclusive education classes (949 students), 8 schools with special education classes (482 students), and 2 schools with small special education classes (161 students). In general, teacher competency in managing the learning of students with special educational needs in all settings is a concern. However, each year the Education and Youth Affairs Bureau of Macau commissions the Education University of Hong Kong to provide inclusion training programmes to a great number of mainstream teachers for them to more effectively cater for the diverse learning needs of Macau students.

In terms of the Macau public examination, most students typically take the Hong Kong public exam, as do many students from Mainland China. The Hong Kong Examinations and Assessment Authority is dedicated to providing equitable, reliable and valid examination and assessment services (Hong Kong Examinations and Assessment Authority [HKEAA], 2016). The number of students with SEN taking public examinations has increased markedly in recent years. SEN students can apply to have special examination arrangements (SEAs) for the public exam, the Hong Kong Diploma of Secondary Education (HKDSE). Depending on the nature and severity of their disabilities, candidates are allowed a number of adjustments, e.g. extra time allowances, supervised breaks, sessional breaks, arrangements for special question papers and answering papers, readers, assistive technology, oral exemption, and a special exam centre for SEN students. The SEAs are considered and approved by the Committee on Special Needs Candidates (the Committee) and/or the Task Group on SEAs for Candidates with Specific Learning Disabilities (the Task Group) in accordance with the guidelines laid down by the Public Examination Board. The provision of SEAs enables SEN candidates to be equitably assessed under suitable conditions without an unfair advantage over other candidates. Their answer scripts are marked according to the same marking criteria as for other candidates but with due consideration given to their disabilities as appropriate.

Development of the CLAAS: A Decision-making and Documentation Tool

The Checklist of Learning and Assessment Adjustments for Students (CLAAS) was drawn from the structure and elements of the Assessment Accommodations Checklist (AAC; Elliott, Kratochwill, & Schulte, 1999) and more than a decade of accessibility research in the United States. The CLAAS, however, was developed in Australia to support existing educational policies and expected professional practices in countries like Australia, the United States, and many others where full access to the entire educational enterprise for all students is highly valued. The CLAAS helps teachers document adjustments that support students with disabilities and students with additional needs in classroom instruction, classroom assessment and external tests. Initial trials of the CLAAS (Davies, Elliott, & Cumming, 2016) with 21 Australian primary school teachers documenting adjustments for 89 students with diverse needs indicated that the CLAAS provided a comprehensive list of adjustments, was useful for recording adjustments across classroom instruction and assessment, and external tests, and provided guidance about potential adjustments for students with disabilities or with

additional learning needs. Documented adjustments also indicated some considerable gaps between supports provided in classrooms compared with National educational accountability tests. Some of these gaps would be expected; for example, reading support during a language arts class activity might be reasonable for students who struggle with reading, but this same support would be inappropriate on a reading test used for accountability. While the items in the CLAAS were modified to suit Australian teaching and learning contexts and classroom assessment contexts, it was expected that the items and categories would have universal acceptability and utility.

Davies et al. (2016) indicated that the CLAAS is a promising tool for helping both researchers and teachers systematically document and provide equitable and inclusive adjustments for students with disabilities and additional learning needs given their needs for classroom learning, assessment and external testing and examination requirements. Initial trials (Davies et al., 2016) indicated that an instrument like the CLAAS can play an important role in: (a) stimulating educators' thinking about possible adjustments students need to improve their access to instructional activities, classroom assessments, and external tests and assessment requirements; and (b) facilitating an efficient process of documenting existing adjustments. The positive results from the trial indicated that the CLAAS warranted further investigation with a broader range of teachers and schools. Additionally, the trial also called for further research and trialing of the tool internationally.

Purpose of the Present Study and Guiding Research Questions

In this study, we investigated teachers' reported use of adjustments designed to support the learning and test performances of students with disabilities. Specifically, we addressed three research questions in this examination of teachers' use of adjustments for students with disabilities from China. What is the reported nature of adjustments made for students with disabilities during classroom instruction, classroom assessments and public testing in Macau and Mainland China? What is the degree of consistency between the provision of adjustments used to support learning and those used during classroom assessments and public testing? How does the use of adjustments by teachers compare between schools in Macau and Mainland China, especially when students take the similar public test?

To address these research questions empirically, we used the CLAAS with a sample of teachers from schools in both Macau and Mainland China. These teachers provided comprehensive reports on the use of adjustments in classroom learning and assessment, and in public testing for several of their students selected at random. Collectively, this study was motivated to provide evidence about inclusive practices for students with disabilities in China and to test the utility and generalisability of the CLAAS with a non-English speaking sample of educators in an educational system different from those for which the CLAAS was originally intended.

Method

Sample

Teachers or teaching assistants ($N = 74$) from private schools (54.1%), special schools (17.6%), government special schools (10.8%), subsidised schools (9.5%) and government mainstream schools (6.8%) completed the CLAAS. Of this sample, most individuals (82.4%) served as teachers, others served as teaching assistants (9.5%), Special educational needs coordinators

Table 1. Nature of students' verified disabilities Macao and Mainland China samples.

	Macau	China
Disability	Number of students (percentages)	Number of students (percentages)
Specific learning disability[a]	47 (21.4)	2 (2.0)
Autism spectrum disorder/autism[a]	39 (17.7)	10 (10.1)
Intellectual impairment/disability[a]	28 (12.7)	27 (27.3)
Emotion and behaviour disorder	22 (10.0)	3 (3.0)
Hearing impairment/auditory[a]	15 (6.8)	39 (39.4)
Physical disability[a]	12 (5.5)	1 (1.0)
Dyslexia	12 (5.5)	
Visual impairment	7 (3.2)	9 (9.1)
Speech disorder	2 (.9)	
Asperger	2 (.9)	1 (1.0)
Health problem	1 (.5)	1 (1.0)
Academically low achiever	1 (.5)	
Communication disorder	1 (.5)	
Hydrocephalus	1 (.5)	
Leukodystrophy	1 (.5)	
Attention deficit hyperactive disorder		3 (3.0)
Downs syndrome		3 (3.0)
Total	220 (100)	99 (100)

[a]Some of the students were diagnosed with more than one disability.

(1.4%) and support/resource teachers (5.4%). The majority (58.1%) of these participants had more than 10 years of teaching experience. Half of them were teaching primary school students, 25.7% of them were teaching secondary school students, 6.8% of them were teaching pre-school students, and 5.4% of them were teaching both primary and secondary school students. A small number were teaching across preschool and primary school or across preschool, primary and secondary schools.

The majority of teachers (40.5%) reported they were taking special education training, while almost a third (29.7%) had completed special education training. A fifth of respondents (20.3%) indicated that they had no special education training at all. These teachers provided information on 319 students, and 89% of the students were reported with particular verified SEN, while 11% of the students were suspected as having SEN but were not yet verified. Table 1 lists the nature of students' verified disabilities for each of the Macau and Mainland China samples.

Table 2 lists identified learning needs of the verified and non-verified students from the two samples.

These responses reflect the learning needs emanating from the verified/non-verified disability, or the teacher response required to meet those learning needs.

Materials

The CLAAS (Davies et al., 2016) adjustment categories and number of representative items are as follows: Motivational Adjustments for Learning and Assessment (5 items); Scheduling Adjustments for Learning and Assessment (4 items); Setting Adjustments for Learning and Assessment (10 items); Assistance with Learning and Assessment Directions (10 items); Assistance During the Assessment (12 items); Assistance Prior to Administering a Test (2 items); Equipment or Assistive Technology (18 items); and Learning and Assessment Formats (6 items).

Table 2. Identified learning needs of verified and non-verified students Macao and Mainland China samples.

	Macau	China
Learning need	Verified/not verified	Verified/not verified
Tutorial/remediation	15	
Emotional and behaviour support	10 (2)	14
Teaching adjustment (poll out teaching, speak loudly/slowly/softly/ clearly, bigger hand writing)	9	
Numeracy, Mathematics	7 (2)	11
Other's help (teacher, student, parent, social worker)	6	
Picture/word card	6	
Seat arrangement (need front seat)	6	
Seat facilities and classroom adjustment	6	
Social skill training	5	
Individual education plan	4	
Learning support	4	
Test adjustment (extend test time, narrow down the testing scope)	4	
Reading	3 (2)	20
Assistive/special device (FM tuner/Microphone/sound recorder/ computer)	3	1
Course adaptation	3	
Small class teaching	3	
Treatment and education of Autistic and communication handi-capped children	3	
Word amplification	3	
Communication	2	5
Autism spectrum disorder	2 (10)	1
Environment adjustment (barrier-free, calm environment for reading test paper)	2	
Hearing impairment	2	
Language and speech	1 (1)	8
Visual impairment (visual cues)	1	5
Intellectual disability	1 (5)	3
Specific learning disorder	1	3
Cognitive support	1	1
English	1	1
Special care	1	1
Braille	1	
Chinese	1	
Chinese character (teaching/writing)	1 (1)	
Failure acceptance training	1	
Psychological support	1	
Timely reminder	1	
Vocabulary explanation	1	
Dyslexia	0 (4)	
Attention deficit hyperactivity disorder	0 (13)	1
Life skill (eating, self-care, purchasing, Haircut)		6
Concentration training		2
Knowledge transfer (application)		2
Coordinate ability		1
Dancing		1
Outside positive information		1
Physical		1
Self-control training		1
Weak comprehension		1
Subtotals	122 (40)	91 (0)
Total	162	91

The CLAAS was designed to facilitate teachers' use and documentation of common adjustments for students with special needs. The CLAAS was found to have content validity and therefore to be of assistance to teachers in identifying and documenting their application

of adjustments for each student with a disability from a comprehensive list of adjustments, to reflect on the appropriateness of this use. Additionally, the CLAAS provides an opportunity for teachers and others to reflect on the relative use of adjustments for each student across classroom learning, classroom assessment and public testing.[1]

The CLAAS instrument was initially translated into Chinese by an academic from the School of Language and Linguistics at the first authors' institution. This version was then reviewed by the third and fourth authors of Hong Kong to ensure that the use of language in the translated instrument complied with current terminology used in Macau and Mainland China. A reverse translation of the Chinese version indicated strong correlation with the English version, satisfying standard translation protocols.

The first page of the CLAAS provided background to the development of the checklist, its aim and focus, and instructions for teachers to complete the checklist for up to six students. The 67 potential adjustments across the 8 adjustment categories followed, with a column for teachers to record each adjustment provided to students for instruction, classroom and assessment, and national public testing. Of the 67 adjustments listed in the CLAAS, only 12 of them specifically are approved for use for the HKDSE. Two adjustments are in the Scheduling Adjustments category, three are in the Setting Adjustments category, one is in the Assistance with Learning and Assessment Directions category, two in Equipment or Assistive Technology category, and four in Learning and Assessment formats (See 'a' items in Table 3). Other adjustments can be applied only after an application is approved by the Committee or Task Group.

Procedures

Teachers from Macau and Mainland China who were undertaking in-service special education training at the Center for Special Educational Needs and Inclusive Education at the Education University of Hong Kong were offered the opportunity to participate in the study. They were provided with information and consent sheets in Chinese and English that explained what the study involved, and if they chose to complete the instruments, were provided with a paper version of the CLAAS, in either Chinese or English. They were then provided with further verbal and written instructions by one of the authors on how to complete the CLAAS for up to six students with learning disabilities (verified) or additional learning needs. They were encouraged to ask questions of the instructor until they were sure of what they were required to do.

Teachers assigned a code to each student, provided brief information about the nature of their needs and then identified which adjustments were made for these students by inserting each student code into the Classroom Learning (CL) column, the Classroom Assessment (CA) column and the public Test (T) column for whom the adjustment had been provided.

Data Analysis

Descriptive statistics were used to summarise the frequency of teachers' responses to each item for a given student. These responses were aggregated across all students and transformed to the percentage of students receiving a particular adjustment in each of the three

Table 3. Mean percentage and standard deviations for adjustments and adjustment gaps for Macau (Top line) and Mainland China (second line) verified and non-verified students.

	Adjustments situations			Adjustment gap analysis[b]		
	Classroom learning (CL)	Classroom assessment (CA)	Public test (T)	CL-CA	CA-T	CL-T
Motivational adjustments for learning and assessment						
1. Provide treats, snacks, or prizes, as appropriate	42.9(.49)	26(.44)	1.3(.11)	.36	.84	1.20
	30.3(.46)	24.2(.43)	9.1(.29)	.14	.42	.55
2. Provide verbal encouragement of student's efforts	58.3(.49)	47(.50)	2.5(.16)	.23	1.19	1.42
	30.3(.46)	37.4(.48)	11.1(.31)	−.15	.64	.49
3. Encourage student who may be slow at starting to begin	40.4(.49)	36.1(.48)	2.2(.15)	.09	.99	1.08
	18.2(.39)	24.2(.43)	10.1(.30)	−.15	.38	.23
4. Encourage student who may want to quit to sustain effort longer	42(.49)	35.7(.48)	2.2(.15)	.13	.98	1.11
	34.3(.47)	19.2(.39)	11.1(.31)	.34	.23	.57
5. Encourage student to remain on task	50.2(.50)	38.2(.49)	2.5(.16)	.24	1.01	1.26
	16.2(.37)	14.1(.35)	9.1(.29)	.06	.16	.22
Macau Category Summary	46.8(.49)	36.6(.48)	2.1(.14)	.21	1.00	1.21
Mainland China Summary	25.9(.43)	23.8(.42)	10.1(.30)	.05	.36	.41
Scheduling adjustments for learning and assessment						
[a]6. Provide extra time	37(.48)	26.3(.44)	.6(.08)	.23	.92	1.15
	35.4(.48)	29.3(.46)	16.2(.37)	.13	.32	.45
[a]7. Allow frequent or extended rest breaks	26.6(.44)	14.4(.35)	.9(.09)	.31	.59	.89
	25.3(.43)	15.2(.36)	5.1(.22)	.25	.35	.60
8. Schedule learning or assessment over extra days	32.9(.47)	23.8(.43)	.9(.09)	.20	.83	1.03
	26.3(.44)	27.3(.45)	22.2(.42)	−.02	.12	.10
9. Undertake assessment at a time most beneficial to the student	32.9(.47)	27.3(.45)	1.3(.11)	.12	.87	.99
	22.2(.42)	30.3(.46)	15.2(.36)	−.18	.36	.18
Macau Category Summary	32.4(.47)	23(.42)	.9(.09)	.22	.80	1.02
Mainland China Summary	27.3(.44)	25.5(.43)	14.7(.34)	.04	.29	.33
Setting adjustments for learning and assessment						
[a]10. Provide distraction-free space or an alternative location for the student (e.g. study carrel, front of classroom)	41.1(.49)	32(.47)	1.6(.13)	.19	.95	1.14
	38.4(.49)	21.2(.41)	11.1(.31)	.38	.28	.66
[a]11. Place the student in the room or part of the room where he/she is most comfortable	33.2(.47)	21.9(.41)	.6(.08)	.25	.82	1.07
	37.4(.48)	21.2(.41)	12.1(.33)	.36	.25	.61
[a]12. Undertake assessments or learning in a special education classroom	25.7(.44)	16.3(.37)	.9(.09)	.23	.64	.87
	26.3(.44)	27.3(.45)	22.2(.42)	−.02	.12	.10
13. Undertake assessments or learning at home/at a hospital location	6.6(.25)	3.8(.19)	.3(.05)	.13	.28	.41
	10.1(.30)	9.1(.29)	3(.17)	.03	.26	.30

14. Provide for individual assessment or learning	39.2(.49)	28.2(.45)	.6(.08)	.23	.96	1.20
	34.3(.47)	19.2(.39)	5.1(.22)	.34	.45	.80
15. Provide special lighting	4.4(.21)	2.5(.16)	0 (0)	.11	.32	.42
	13.1(.34)	1(.1)	2(.14)	.54	−.08	.46
16. Provide adaptive or special furniture	9.1(.29)	1.9(.14)	0 (0)	.34	.28	.61
	17.2(.38)	3(.17)	5.1(.22)	.51	−.11	.40
17. Provide special acoustics	8.5(.28)	3.8(.19)	0 (0)	.20	.39	.59
	18.2(.39)	2(.14)	4(.20)	.60	−.12	.48
18. Play soft, calming music to minimise distractions	11(.31)	6.6(.25)	.3(.05)	.16	.41	.57
	14.1(.35)	2(.14)	4(.20)	.49	−.12	.37
19. Allow the student freedom to move, stand or pace during assessment or learning	24.1(.43)	15(.36)	.9(.09)	.23	.61	.84
	16.2(.37)	19.2(.39)	11.1(.31)	−.08	.23	.15
Macau Category Summary	20.3(.36)	13.2(.30)	.5(.06)	.21	.57	.77
Mainland China Summary	22.5(.40)	12.5(.29)	8(.25)	.31	.12	.43
Assistance with learning and assessment directions						
[a]20. Read directions to student	30.1(.46)	24.1(.43)	0 (0)	.14	1.03	1.16
	37.4(.48)	21.2(.41)	8.1(.27)	.36	.38	.74
21. Reread directions for each sub task as needed	35.7(.48)	25.7(.44)	.3(.05)	.22	.95	1.17
	28.3(.45)	17.2(.38)	7.1(.26)	.27	.32	.58
22. Encourage student who may be slow at starting to begin	32.6(.47)	25.1(.43)	.9(.09)	.17	.86	1.03
	30.3(.46)	16.2(.37)	10.1(.30)	.34	.18	.52
23. Clarify student questions regarding what to do by asking the student about what is written in the learning activities or assessment	39.8(.49)	32.3(.47)	.3(.05)	.16	1.10	1.26
	26.3(.44)	15.2(.36)	3(.17)	.28	.45	.73
24. Underline verbs in learning or assessment instructions	26.3(.44)	18.8(.39)	1.6(.13)	.18	.64	.82
	20.2(.40)	23.2(.42)	10.1(.30)	−.07	.36	.29
25. Circle or highlight the task in learning or assessment instructions	24.8(.43)	20.4(.40)	1.3(.11)	.11	.71	.81
	22.2(.42)	12.1(.33)	10.1(.30)	.27	.06	.33
26. Have student reread and restate instructions in his/her own words	29.8(.46)	20.1(.40)	.3(.05)	.23	.82	1.05
	15.2(.36)	11.1(.31)	5.1(.22)	.12	.22	.35
27. Provide additional practice activities before undertaking assessments	32(.47)	19.1(.39)	.3(.05)	.30	.80	1.09
	39.4(.49)	24.2(.43)	8.1(.27)	.33	.45	.78
28. Use sign language or oral interpreters for instructions and learning activities or assessment	14.7(.35)	7.2(.26)	.3(.05)	.24	.43	.68
	23.2(.42)	8.1(.27)	9.1(.29)	.43	−.04	.39
29. Colour code instructions to emphasis steps	20.4(.40)	9.4(.29)	.9(.09)	.31	.43	.75
	26.3(.44)	15.2(.36)	7.1(.26)	.28	.26	.54
Macau Category Summary	28.6(.44)	20.2(.39)	.6(.07)	.20	.78	.98
Mainland China Summary	26.9(.44)	16.4(.36)	7.8(.26)	.26	.27	.52
Assistance during the assessment						
30. Arrange for a special education teacher or other qualified person to manage assessment	26.6(.44)	20.7(.41)	1.3(.11)	.14	.72	.86
	25.3(.43)	31.3(.46)	17.2(.38)	−.13	.33	.20

(*Continued*)

Table 3. (*Continued*).

	Adjustments situations			Adjustment gap analysis[b]		
	Classroom learning (CL)	Classroom assessment (CA)	Public test (T)	CL-CA	CA-T	CL-T
31. Read assessment expectations and content to student	31.3(.46)	26(.44)	1.3(.11)	.12	.84	.96
	16.2(.37)	16.2(.37)	13.1(.34)	.00	.09	.09
32. Sign assessment expectations and content to student	28.5(.45)	21.3(.41)	.9(.09)	.17	.77	.94
	20.2(.40)	15.2(.36)	6.1(.24)	.13	.30	.43
33. Restate assessment task with more appropriate vocabulary or define unknown vocabulary in the question	29.8(.46)	21.6(.41)	1.3(.11)	.19	.74	.93
	10.1(.30)	7.1(.26)	7.1(.26)	.11	.00	.11
34. Turn pages for the student	9.1(.29)	5.6(.23)	.9(.09)	.14	.29	.42
	17.2(.38)	5.1(.22)	8.1(.27)	.40	−.12	.28
35. Record student's responses (in writing or by audio recording)	14.7(.35)	8.5(.28)	.6(.08)	.20	.44	.63
	6.1(.24)	12.1(.33)	10.1(.30)	−.21	.06	−.15
36. Provide spelling assistance, where appropriate	21.3(.41)	13.5(.34)	.6(.08)	.21	.60	.80
	21.2(.41)	10.1(.30)	9.1(.29)	.31	.03	.34
37. Have teacher sit near student	25.1(.43)	18.2(.39)	.9(.09)	.17	.69	.86
	14.1(.35)	19.2(.39)	14.1(.35)	−.14	.14	.00
38. Use test form with vertically arranged multiple choice items that have an answer circle to the left of each choice	21.3(.41)	11.6(.32)	.3(.05)	.26	.59	.85
	5.1(.22)	3(.17)	7.1(.26)	.11	−.19	−.08
39. Provide cues such as stop signs/arrows on the test form	13.5(.34)	6.3(.24)	.3(.05)	.25	.40	.64
	8.1(.27)	2(.14)	6.1(.24)	.29	−.22	.08
40. Allow responses to be marked in the test book rather than on a separate answer document	26(.44)	13.8(.34)	.3(.05)	.31	.65	.96
	15.2(.36)	20.2(.40)	4(.20)	−.13	.53	.40
41. Assist the student in tracking the test items by pointing or by placing student's finger on the items	22.3(.42)	16.6(.37)	.3(.05)	.14	.73	.87
	13.1(.34)	6.1(.24)	8.1(.27)	.24	−.08	.16
Macau Category Summary	22.5(.41)	15.3(.35)	.8(.08)	.19	.62	.81
Mainland China Summary	14.3(.34)	12.3(.30)	9.2(.28)	.08	.07	.15
Assistance prior to administering a test						
42. Administer practice activities	27.9(.45)	19.7(.40)	.9(.09)	.19	.73	.92
	24.2(.43)	21.2(.41)	17.2(.38)	.07	.10	.17
43. Teach test-taking skills	23.8(.43)	15.7(.36)	.9(.09)	.20	.62	.83
	19.2(.39)	17.2(.38)	9.1(.29)	.05	.24	.29
Macau Category Summary	25.9(.44)	17.7(.38)	.9(.09)	.20	.68	.88
Mainland China Summary	21.7(.41)	19.2(.39)	13.2(.33)	.06	.17	.23
Equipment or assistive technology						
44. Text–talk converter	1.9(.14)	2.8(.16)	.6(.08)	−.06	.18	.12
	5.1(.22)	4(.20)	7.1(.26)	.05	−.14	−.08

45. Speech synthesiser or electronic reader	2.5(.16)	2.5(.16)	.3(.05)	.00	.21	.21
	10.1(.30)	0 (0)	3(.17)	.65	−.35	.30
[a]46. Visual magnification devices	2.8(.16)	1.3(.11)	.3(.05)	.11	.12	.23
	1(.10)	4(.20)	3(.17)	−.20	.05	−.15
47. Auditory amplification devices	6(.24)	3.4(.18)	.9(.09)	.12	.18	.30
	3(.17)	4(.20)	4(.20)	−.05	.00	−.05
48. Using masks or markers to help maintain place	6(.24)	4.7(.21)	.9(.09)	.06	.25	.30
	2(.14)	1(.10)	6.1(.24)	.08	−.30	−.22
49. Use an audio recorder	3.1(.17)	3.4(.18)	1.3(.11)	−.02	.14	.13
	8.1(.27)	1(.10)	3(.17)	.38	−.15	.23
[a]50. Computer, iPad or word processor for recording responses	15.7(.36)	10.7(.31)	.3(.05)	.15	.56	.71
	11.1(.31)	9.1(.29)	2(.14)	.07	.33	.40
51. Braille writer for recording responses	1.6(.13)	1.9(.14)	.3(.05)	−.02	.17	.14
	10.1(.30)	0 (0)	1(.10)	.65	−.20	.45
52. Communications device to indicate responses	3.1(.17)	4.4(.21)	1.3(.11)	−.07	.19	.13
	4(.20)	3(.17)	1(.10)	.05	.15	.20
53. Provide cues such as stop signs or arrows on the test form	4.1(.2)	4.1(.20)	1.3(.11)	.00	.18	.18
	7.1(.26)	5.1(.22)	6.1(.24)	.08	−.04	.04
54. Calculator	5.3(.22)	3.4(.18)	.9(.09)	.09	.18	.27
	21.2(.41)	10.1(.30)	4(.20)	.31	.24	.55
55. Manipulatives	40.1(.49)	21.3(.41)	1.6(.13)	.41	.71	1.12
	31.3(.46)	9.1(.29)	7.1(.26)	.57	.07	.65
56. Ruler	24.8(.43)	12.9(.34)	1.6(.13)	.31	.48	.79
	14.1(.35)	13.1(.34)	7.1(.26)	.03	.20	.23
57. Pencils or other pens adapted in size or grip	22.3(.42)	13.2(.34)	.9(.09)	.24	.55	.79
	13.1(.34)	10.1(.30)	11.1(.31)	.09	−.03	.06
58. Device that transforms print into a tactile form	7.2(.26)	2.2(.15)	.6(.08)	.25	.14	.39
	2(.14)	2(.14)	3(.17)	.00	−.06	−.06
59. Arithmetic tables	9.4(.29)	3.8(.19)	1.6(.13)	.23	.14	.37
	8.1(.27)	4(.20)	7.1(.26)	.17	−.14	.04
60. Written list of necessary formulas	7.8(.27)	5(.22)	.9(.09)	.12	.26	.38
	11.1(.31)	5.1(.22)	10.1(.30)	.22	−.19	.03
61. Noise buffers	4.7(.21)	1.9(.14)	.3(.05)	.16	.17	.33
	2(.14)	3(.17)	1(.10)	−.06	.15	.08
Macau Category Summary	9.4(.25)	5.7(.21)	.9(.09)	.12	.27	.38
Mainland China Summary	9.1(.26)	4.9(.19)	4.8(.20)	.17	−.02	.15
Learning and assessment formats						
[a]62. Use lined or grid paper for recording student work when only blank space is provided for other students	15.7(.36)	13.2(.34)	2.5(.16)	.07	.43	.50
	3(.17)	2(.14)	6.1(.24)	.06	−.22	−.15
[a]63. Provide Braille or large print editions of learning materials and assessments	8.8(.28)	5.6(.23)	1.6(.13)	.12	.22	.35
	0 (0)	3(.17)	5.1(.22)	−.35	−.11	−.46

(*Continued*)

Table 3. (*Continued*).

	Adjustments situations			Adjustment gap analysis[b]		
	Classroom learning (CL)	Classroom assessment (CA)	Public test (T)	CL-CA	CA-T	CL-T
64. Provide voice-recorded learning materials and assessments	7.5(.26)	5.6(.23)	1.9(.14)	.08	.20	.28
	0 (0)	7.1(.26)	3(.17)	−.54	.19	−.35
[a]65. Change presentation format of written material (e.g. increase spacing between lines, reduce number of items per page, print one complete sentence per line)	13.2(.34)	8.8(.28)	.9(.09)	.14	.41	.55
	9.1(.29)	1(.10)	3(.17)	.41	−.15	.26
66. Provide a separate copy of diagrams/tables needed for learning and assessments so student does not have to flip back and forth in materials	11.6(.32)	10(.30)	.9(.09)	.05	.45	.51
	0 (0)	2(.14)	4(.20)	−.28	−.12	−.40
[a]67. Use a computer for learning and assessment presentation	12.9(.34)	11.6(.32)	1.3(.11)	.04	.47	.51
	6.1(.24)	6.1(.24)	4(.20)	.00	.10	.10
Macau Category Summary	11.6(.32)	9.1(.28)	1.5(.12)	.08	.36	.45
Mainland China Summary	3(.12)	3.5(.17)	4.2(.20)	−.12	−.05	−.17

[a]Adjustments allowed for the Hong Kong Diploma of Secondary Education (HKDSE).

[b]The Testing Adjustment Gap Effect analysis is based on Cohen h where an effect size statistic is computed for arcsine transformed portion differences. A small effect size is defined as .20 to .50, a medium effect size is defined as .50–.80 and a large effect size is defined as greater than .80.

designed situations (CL, CA, T). Mean percentages were then created for each item and adjustment category separately for students in Macau and Mainland China schools.

To examine how the reported use of adjustments varied across the three situations, we calculated effect sizes (Mean 1 – Mean 2 / SD pooled) for each item and adjustment category between CL-CA, CL-T and CA-T. Since the researchers considered that assumptions for this test were met, and that each teacher judged each child independently of one another, the Cohen h index was used where the effect size (ES) statistic is computed for arcsine transformed proportion differences. A small effect size is defined as .20–.49, a medium effect size is defined as .50 to .79 and a large effect size is defined as greater than .80 (Cohen, 1977). We conceptualised this effect size analysis as a means of identifying potential adjustment gaps. The smaller the ES or gap, the more consistent the use of adjustments for students across learning, assessment and testing situations.

Results

The data from the survey of teachers provided substantial empirical evidence to address our research questions about the adjustments provided to students with disabilities in classrooms in China. Table 3, under the Adjustment Situations column, provides descriptive data for the each of the 8 adjustment strategy categories representing the 67 adjustment tactics for students with disabilities in Macau and Mainland China schools. Specifically, examination of the mean usage percentages for adjustment tactics and categories of adjustments used to support students with disabilities indicates the following trends:

(1) Nearly, all of the specific adjustments (i.e. 61 out of the total 67) were reported to be used by teachers in both Macau and Mainland China to support one or more students during classroom learning, classroom assessment and public testing. The specific adjustments that were not reported to be used for this sample of students with disabilities were items 15 (special lighting), 45 (speech synthesiser or electronic reader), 51 (Braille writer), 63 (voice-recorded learning materials), 64 (voice-recorded learning materials and assessments) and 66 (separate copies of materials to avoid flipping back and forth in materials).
(2) The 12 adjustment tactics listed on the CLAAS (i.e. adjustment items 6, 7, 10, 11, 12, 20, 46, 50, 62, 63, 65 and 67) that specifically are indicated as allowed for use on the HKDSE had extremely low mean percentages for their use in the public testing situation compared to their use in classroom situations. This pattern of differential use across situations resulted in relatively large gaps as indicated by a majority of effect sizes greater than .80. In addition, the mean percentage usage for these 12 allowable adjustments was also low compared to other adjustments in the same category.
(3) For the eight adjustment strategy categories, five categories (Motivational, Scheduling, Setting, Directions and Prior to Testing) were used to support greater than 20% of the students during learning and testing situations. The use of strategies in the three remaining adjustment categories – During Testing/Learning, Equipment or Assistive Technology, and Formats – were reportedly used with less than 20% of the students.
(4) The mean percentage for adjustments used was relatively low and quite variable for each of the learning and assessment situations examined. Specifically, based on the

data reported for this sample of teachers, the mean percentage of all adjustments they reported to support their students' classroom learning was 21.8% (Macau 24.7%, Mainland China 18.8%), classroom assessment was 16.2% (Macau 17.6%, Mainland China 14.8%) and public testing was 5.0% (Macau 1.0%, Mainland China 9%). As illustrated by this data, Macau teachers consistently reported using adjustments more often than Mainland China teachers to support students during classroom learning situations than during classroom assessment. For public testing, however, the Mainland China teachers reported using more adjustments to support students than the Macau teachers.

Following up on these different adjustment usage levels across situations by teachers in Macau versus Mainland China, we conducted a gap analysis. That is, for any given adjustment, the usage data consistently indicated that adjustments were used more frequently to support classroom learning than classroom assessment, and in turn, used more frequently to support classroom assessment than public testing. These differences in the use of specific adjustments across situations can be characterised as adjustment gaps when support is likely needed but not provided. To quantify these gaps, we calculated effect sizes for the mean usage percentages within a given adjustment strategy category for each of three situation combinations – Classroom Learning to Classroom Assessment (CL-CA); Classroom Assessment to Testing (CA-T); and Classroom Learning to Testing (CL-T) – separately for the Macau and Mainland China teachers. An examination of the effect sizes for the adjustment gap analyses as noted in Table 3 indicated the following trends:

(1) For the Classroom Learning to public Testing situations comparison, we observed mostly large effect sizes (or gaps) for adjustment usage with students in Macau, and moderate effect sizes for adjustment usage with students in Mainland China.
(2) For the Classroom Assessment to public Testing situations comparison, we observed a mixture of moderate to large effect sizes (or gaps) for adjustment usage with students in Macau, and mostly small to non-existent effect sizes (or gaps) with students in Mainland China.
(3) For the Classroom Learning to Classroom Assessment situations comparison, we observed all small to non-existence effect sizes (or gaps) with both Macau and Mainland China Students.

Discussion

This study was motivated primarily to provide evidence about the use of adjustments to support the learning and assessment of students with disabilities in China. Concurrently, however, it was part of a programme of research on the application of the CLAAS, a tool to facilitate teachers' comprehensive and systematic documentation of adjustments used in classroom learning, classroom assessment and public testing situations. The CLAAS is based on testing accommodation research and inclusion policies in the United States and Australia and originally designed for English speaking users, so the application of CLAAS with educators in China provided a test of its utility and the generalisability of its featured adjustment tactics.

Major Findings and Their Relation to Previous Studies

The responses of teachers from Mainland China and Macau about the adjustment strategies and specific tactics they typically used to support the learning and assessment of students with a range of disabilities provided substantial evidence to address the three guiding research questions. The major findings, within the context of our research questions, follow and provide initial evidence regarding the utility and validity of the CLAAS adjustment framework for use with students with disabilities in China.

Research Question 1

What is the reported nature of adjustments made for students with disabilities during classroom instruction, classroom assessments and public testing? Based on the responses of our sample of teachers from Macau and Mainland China, one or more adjustment tactics were used from every one of the eight functional categories of adjustments across students with a wide range of documented disabilities. In general, more of these adjustments were selected for use in classroom learning situations than in either classroom assessments or with public testing. We also observed that the 12 specified allowable adjustments for the HKDSE were reportedly used very little in both an absolute and relative sense; yet these same adjustments were rather frequently reported in use in both classroom learning and classroom assessment situations.

It is important to understand that the effectiveness of the adjustment selected by teachers for any given student was not determined; rather the focus was more basic in this initial study and designed to establish the content validity of adjustment tactics for three situations where support for students typically varies, with the most liberal use occurring in classroom learning situations and the most restrictive use in public testing situations. These two trends, the overall use of adjustments from the CLAAS's comprehensive list, and the greater use of adjustments in learning situations compared to testing situations are consistent with previous research with the CLAAS in Australia (Davies et al., 2016) and with the AAC (predecessor to the CLAAS) in the United States (Gilbertson-Schulte, Elliott, & Kratochwill, 2000). Thus, collectively this evidence provides initial support for the utility and content validity of the CLAAS for inclusive educational practices with students in China.

Research Question 2

What is the degree of consistency between the provision of adjustments used to support learning and those used during classroom assessments and public testing? As highlighted in our descriptive analyses and described for the 12 allowable testing adjustments, there was a clear pattern of use across virtually all adjustments with more used for classroom learning situations than classroom assessment situations, and in turn, more in both these situations than in public testing situations. Such a pattern is understandable in that teachers are motivated to support learning to increase the likelihood a student experiences some success and has opportunities to enact all actions required for a particular activity or problem-solving item. However, when moving to assessment or testing situations, teachers are naturally motivated to see if a student has learned the knowledge or skills being measured, thus they often reduce or remove previously provided adjustments. This makes sense if the

adjustment is part of the knowledge or skill being measured, but removal is not appropriate if the adjustment represents an access skill or support. From a student perspective, it is reasonable to view this pattern of adjustment provision as inconsistent and unsupportive. To avoid or at least reduce this perception, teachers first of all need to reflect on the appropriate use of allowable test adjustments. Secondly, teachers must communicate with students about adjustments and situations when they are appropriate and situations where they may not be appropriate given the need to get a valid understanding of what a student knows and can do independently. Thus, the use of adjustments can and should vary across learning and assessment situations, but to ensure this is done constructively and appropriately, teachers are encouraged to plan ahead and communicate with students and others about the need for adjustments across all learning and assessment settings. The CLAAS is a tool designed to open such communication and consideration and to reinforce the development of an appropriate adjustment plan.

Research Question 3

How does the use of adjustments by teachers compare between schools in Macau and Mainland China, especially when the students take the same public test?

The Macau teachers sampled in this study consistently reported using a large range of adjustments with a larger percentage of their students with disabilities in both classroom learning and assessment situations than did the sample of Mainland China teachers. Surprisingly, however, the Mainland China teachers reported using more adjustments with more students with disabilities in public testing than their teaching peers from Macau. The explanation for this seemingly inconsistent pattern in adjustment use is not readily apparent. It could be the result of differences in teaching philosophies about the role of adjustments, differences in professional training or errors in reporting. Further research is needed to determine if this pattern replicates and, if so, an explanation for it.

Overall, the results from this study reinforce the observation that the CLAAS has utility and generalisable application with Chinese educators. Specifically, the responses of teachers from two regions of China provided evidence that the content of the CLAAS was reasonably well aligned with adjustment practices commonly reported in China and other countries. Use of this response data has the potential to improve both research and job-embedded professional development on adjustments while contributing to the advancement of inclusive education for students with disabilities.

Study Limitations and Future Research to Address Them

This investigation into the use of the CLAAS to document adjustments teachers report using to support students with disabilities has provided substantial and unique information relevant to China, and yet generally consistent with previous research with students in other countries. This research, however, has several characteristics that limit its impact on adjustment policy and practices. First, the samples of students representing Macau and Mainland China were not determined to be directly comparable and thus variability in their resulting adjustment needs cannot be used to infer one group of teachers is a better judge of support needs or did a better job of selecting appropriate adjustments than the other group of teachers. Second, this was the first time the participating teachers had used the CLAAS so

there may be a novelty effect or reactionary effect. Finally, there was no opportunity to conduct a reliability check on teachers' actual use of adjustments, nor the validity of the packages of adjustments selected for a given student. Each of these limitations for this study, however, can be addressed in future research now that we know that the CLAAS has both utility and content validity for teachers in China.

Practice and Policy Implications

If the trends in adjustment usage for students with disabilities in learning and assessment situations are found replicable in subsequent research, there are clear implications for both professional development and testing policy and practices. Specifically, that CLAAS and the content embodied by it can be used in the pre-service and in-service development of professional educators to sensitise them about the wide array of adjustments often needed to optimally support the learning and assessment of their students. In addition, the rather narrow range of adjustments allowed by current China public examinations is very restrictive relative to other countries where high quality public/large-scale assessments are conducted. When students are not provided needed adjustments that only support access skills, not target skills tested, the validity of the inferences from their test scores is undermined (Elliott & Kettler, 2015). This finding would suggest that the CLAAS has very real relevance for China and Macau. It provides a documentation approach that can assist teachers, school leaders and policy-makers to reflect on and review the use of adjustments across learning, classroom assessment and public testing, and in the light of China policy Clauses 14, 20 and 21. If the adjustment use of a larger sample of teachers was to be obtained, along with qualitative reflections from both teachers and students, this data have the potential to be a game changer if these educational specialists seek improvement in their inclusive assessment protocols. The current restrictive nature of allowable adjustments in public testing could also be reviewed.

Conclusions

This study documents the initial effort to translate and use the CLAAS to understand the use of adjustments by teachers of students with disabilities in China. The major outcomes were consistent with research findings regarding adjustments used in other countries. In addition, the findings were promising in that the adjustment tactics listed on the CLAAS were consistent with those reportedly used by teachers for their students in classrooms and allowed on public tests in Macau and Mainland China. In many cases, however, it appeared that adjustment tactics selected for use during public tests were more restrictive than necessary from both inclusive education and test score validity perspectives. This inference must be further tested. Thus, more focused research on adjustment implementation and testing outcome data is now possible given a content valid tool like the CLAAS is available for documenting and examining the use of adjustments for students in China.

Note

1. The CLAAS is available for use by contacting Dr. Michael Davies at m.davies@griffith.edu.au.

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