Assessment of academic difficulties in culturally and linguistically diverse school students

Azucena Velasco Leon and Marilyn Campbell*

School of Early Childhood and Inclusive Education, Queensland University of Technology, Brisbane, Queensland, Australia
*Corresponding author. Email: ma.campbell@qut.edu.au
(Received 15 November 2018; revised 07 January 2020; accepted 27 January 2020; first published online 03 March 2020)

Abstract
The increasing tendency of immigration and forced migration practices around the world has made countries’ populations culturally and linguistically diverse. Australia is considered one of the most culturally diverse countries in the world. Consequently, the proportion of school-aged children with different culture and language is also increasing. Thus, school psychologists and guidance counsellors face the challenge of designing fair assessment practices and sound interventions for culturally and linguistically diverse (CALD) students who experience difficulties with their learning. Although many multicultural countries have extensive research regarding the assessment of learning difficulties in CALD students, Australia lacks this research. This study explored the most common assessment strategies that school psychologists and guidance counsellors usually implement in their assessment of CALD students. These results were then compared to a best practice model from the literature. In order to understand the current practices of school psychologists and counsellors in Australia who have assessed CALD children, a survey was administered to 34 school psychologists and counsellors. It was found that the reported strategies and protocols were very close to the ones proposed by experts, which was an unexpected outcome of this study. Implications for school psychologists and counsellors are discussed.

Keywords: CALD; assessment; learning difficulties; school psychologists; school counsellors; Australia

In order to provide fair educational opportunities to every student, school psychologists and counsellors are called to assess students who experience academic learning difficulties. Definitions of ‘learning difficulties’ vary within Australia. The Queensland Government uses the terms ‘difficulty’ and ‘disability’ interchangeably in their definitions (Queensland Government Department of Education, 2019). The SPELD Foundation differentiates between the two, stating that learning difficulties occur for a wide range of reasons both internal and external to the child, while learning disabilities involve specific underlying neurodevelopmental disorders (AUSPELD, 2014). For the purposes of this research, learning difficulties are defined as encompassing any kind of difficulty or disability that results in a child requiring additional learning support. Assessment of children with suspected academic learning difficulties is accomplished by using both informal and formal methods of assessment. While these processes are adequate for most students, there are some students, such as those who come from different cultures and have English as an additional language, who may require these processes be modified to more accurately assess the reasons for their academic difficulties.

In Australia, these students are known as culturally and linguistically diverse (CALD) and include those individuals whose first language is other than English, come from a different culture and religious background, and/or have migrated to an English-speaking country (Khawaja, McCarthy, Braddock, & Dunne, 2013). There have been an increasing number of CALD students entering the Australian school...
system due to the influx of migrants and people from refugee background into the country (Australian Bureau of Statistics, 2017). These students can present assessment challenges for psychologists and counsellors because of the differences they show in terms of culture and language backgrounds from Australian-born students.

The challenges in the assessment of CALD students

One of the most common issues identified that contributes to the possible misdiagnosis of academic difficulties in CALD students is the fact that school psychologists and counsellors are insufficiently trained (Schon, Shaftel, & Markhman, 2008; Vega, Lasser, & Afifi, 2016). In Vega’s study of school psychologists in the United States, over 81% of participants had received training in CALD assessment, most through graduate school or professional development; however, 95% indicated a desire for further and continued training in this area. Around 70% of participants also reported that CALD students were likely to be either over- or under-identified as needing special education services (Vega et al., 2016). Interpreting results of assessment may be influenced by the examiner’s subjective stereotypical judgment about certain behaviours students demonstrate, which may result in an inaccurate diagnosis of the student’s capacity. Training is also required for interpreters to ensure the language used and translated corresponds with the assessment intention of the examiner (Sattler, 2001).

The background of the CALD student may represent another challenge when conducting educational assessments. Factors such as the English proficiency of the CALD student, the quality and quantity of their previous schooling, health issues, and in some cases, trauma, abuse and neglect may have a direct impact in the assessment performance of a CALD student (Fraine & McDade, 2009; Kaplan, Stolk, Valibhoy, Tucker, & Baker, 2016).

There has been some debate around the use of interpreters in assessing CALD students. Some people argue that because no tests have so far been standardised for translation from English to other languages, the practice of translation would violate administration guidelines and invalidate the final scores. Furthermore, many interpreters lack formal training in assessment of CALD students and may interpret a child’s response rather than directly translating their words (Geva & Wiener, 2015; Vega et al., 2016). Others believe that interpreters are an important resource, and that professionals should receive high quality training in how to work effectively with interpreters (Guiberson & Atkins, 2012).

School psychologists and counsellors also face the challenge of finding protocols to guide their decisions and procedures when assessing CALD students. Despite a small number of publications (e.g., Geva & Wiener, 2015) that provide current assessment guides aimed at practitioners, research shows that there is no real consensus about how to address the individual needs of CALD students who are being assessed for academic difficulties (Scott, Boynton Hauerwas, & Brown, 2014). Thus, clinicians are forced to find their own ways and resources, often at the expense of the validity and reliability of their procedures. The lack of established protocols has been identified by psychologists and counsellors as a challenge (Mak & Shaw, 2015). Although in Australia there are requirements regarding cross-cultural competency for psychologists, there are no specific guidelines for professionals to follow when assessing CALD populations (Mak & Shaw, 2015).

Finding assessment tools that are nonbiased for particular minority groups is also another difficulty encountered by school psychologists and counsellors. Assessment resources might be biased in their content and language (Laing & Kamhi, 2003; Schon et al., 2008), and thus school psychologists and counsellors have had to develop modified assessments and procedures in order to respond to the needs of this population, which are therefore no longer standardised. Aware of these challenges, many school psychologists and counsellors have chosen to administer nonverbal assessments to reduce this cultural bias. However, research has found that some subtests in nonverbal instruments are also culturally biased (Crevecoeur & Obiakor, 2013; Fraine & McDade, 2009; Greenfield, 1997). In particular, Fraine and McDade (2009) argue that almost no assessment instrument can be completely free from cultural bias. Greenfield (1997) states that cognitive and intelligence tests are unable to cross cultures as
they are necessarily imbued with the values and knowledges of those who created them. She cites an American object sorting test taken to Liberia where the children said that it was ‘foolish’ to sort the items taxonomically as expected by the researchers, instead insisting on making functional pairings such as potato with knife. These examples show that although nonverbal assessments can be more suitable for assessing children with English as an additional language, they are not necessarily free from cultural bias.

The consequences of misdiagnosis
Because of these challenges, CALD students are often misdiagnosed as having learning difficulties when in fact there could be other factors that are determining their low academic achievement. This misdiagnosis may result in CALD students experiencing isolation, frustration and a lack of support appropriate to their needs, contributing to increasing dropouts of CALD students from school, and poor employment prospects and mental health issues (Crevecoeur & Obiakor, 2013; Everatt et al., 2013; Vega et al., 2016). In addition to these consequences of misdiagnosis, there is extensive research suggesting that minority groups are disproportionately represented in the special education system (Fletcher & Navarrete, 2011; Ortiz & Franquiz, 2016; Sweller, Graham, & Van Bergen, 2012; Vega et al., 2016). Difficulties in the assessment procedures of CALD students have been identified as contributing to this overrepresentation (Vega et al., 2016).

Guidance from the literature in assessing CALD students
While there are many challenges in assessing CALD students, there has been research about how psychologists and counsellors can provide high quality practice. However, it is unknown whether Australian school psychologists and counsellors follow this quality practice. The literature asserts that school psychologists and counsellors, as well as interpreters, must be trained to develop competencies in cross-cultural understanding (Fraine & McDade, 2009; Schon et al., 2008; Vega et al., 2016).

Background information
Research suggests that the collection of background information is a key element in the assessment (Fraine & McDade, 2009; Kaplan et al., 2016; Schon et al., 2008). Particularly for CALD students, the background information constitutes a guide to the further administration of standardised assessments (Ortiz, 1997) and should include, if possible, data from previous schooling (Fraine & McDade, 2009; Schon et al., 2008), the level of acculturation of the family (Crevecoeur & Obiakor, 2013; Fraine & McDade, 2009), some general health and medical information, and for some CALD students from refugee background, checking for trauma and possible abuse (Fraine & McDade, 2009; Kaplan et al., 2016).

Another important process is including the assessment of students’ first language. Various studies have recommended obtaining an estimate of the student’s native language phonological awareness as well as their native language proficiency level (Chiappe, Siegel, & Gottardo, 2002; Everatt et al., 2013; Vanderwood, Nam, & Sun, 2014; Zimmerman, 2014). In addition to this, it is suggested that academic results, especially over time, are collected.

All these elements can provide a comprehensive profile of the student’s needs and serve as a guide for the further administration of standardised tests. However, it is acknowledged that the collection of this information can be laborious and may propose a challenge for school psychologists and counsellors.
Formal assessment

The literature suggests that standardised testing should be based on the comprehensive information gathered in the background information process. The term *data-driven hypothesis* refers to the aim of the clinician to compile and organise the background information and generate a hypothesis to guide the further administration of formal assessment (Olvera & Gomez-Cerrillo, 2011). Research suggests that there are important elements to consider when conducting this formal part of this process. Since the majority of assessment tools rely highly on language, it is important that school psychologists and counsellors determine the level of proficiency that a CALD student has in English. This is in order to establish the assessment tools to be used (Klingner, Artiles, & Barletta, 2006; Ochoa & Ortiz, 2005; Olvera & Gomez-Cerrillo, 2011).

Thus, the current study explored the most common practices of school psychologists and counsellors in Australia in the assessment of CALD students who present with academic difficulties and compared these practices to what the literature suggests are quality assessment practices. It was hypothesised that most school psychologists and counsellors would not be using the most beneficial practices because of lack of training, inability to source tests, and time constraints. We wanted to provide a snapshot of what was happening with assessment of CALD students in Australia to provide a framework to benefit those professionals who assess CALD students who exhibit academic difficulties.

Method

**Participants**

The participants were 34 school psychologists and guidance counsellors from different states of Australia: 14 were from Queensland, 10 were from New South Wales, three from South Australia, two from Victoria, one from Western Australia and one from the Australian Capital Territory. There were no participants from Victoria, Tasmania or the Northern Territory.

The majority of the respondents were women, with only two men responding. The age of the participants varied, with two aged between 20–30 years, nine between 31–40 years, ten between 41–50 years, seven between 51–60 years and five were 61 years and over. The majority of participants (28) had a master’s degree. Participants worked in a variety of settings: 11 worked in government schools, ten worked in Catholic schools, four in independent schools, and two in other educational organisations. Primary was the sector in which most participants worked (16), followed by nine who worked in early childhood and seven in secondary. Five participants worked in private practice, one worked in a community agency and three worked in other institutions including a state health facility, a university clinic and a statewide English as an additional language or dialect (EAL/D) Program.

On average, the respondents had worked for 13.4 years in assessing students. For assessing CALD students, the respondents reported to have on average 10 years’ experience. The participants reported that each year on average they assessed about 17 CALD students. However, the majority assessed less than 10 per year with a quarter assessing between 10 and 20 and the rest between 50 and 100 (see Table 1).

**Measures**

A 22-item survey was developed by the authors (see Appendix). The survey included seven questions about the participants’ demographics (age, gender, employment context, academic level and level of practice) with three questions on training and experience in assessing CALD students. Four questions were about the school or organisation where the participant worked. The survey also included eight questions based on assessment practices in articles on CALD assessment (Fraine & McDade, 2009; Meteyard & Gilmore, 2015; Ochoa & Ortiz, 2005; Schon et al., 2008; Vega et al., 2016). Four questions
were about interpreting services and practices prior to the assessment of the student, two were about the methods of assessment, including instruments used, and there were two open questions — one about the difficulties experienced by school psychologists and counsellors and another question about useful resources in the assessment of CALD students.

Table 1. Participant Demographic and Professional Information

| Variables                  | No | %   |
|----------------------------|----|-----|
| **Location**               |    |     |
| Queensland                 | 14 | 41  |
| New South Wales            | 10 | 29  |
| South Australia            |  3 |  9  |
| Victoria                   |  2 |  6  |
| Western Australia          |  1 |  3  |
| Australian Capital Territory|  1 |  3  |
| No response                |  3 |  9  |
| **Gender**                 |    |     |
| Female                     | 32 | 94  |
| Male                       |  2 |  6  |
| No response                |  0 |     |
| **Age range**              |    |     |
| 20–30                      |  2 |  6  |
| 31–40                      |  9 | 26  |
| 41–50                      | 10 | 29  |
| 51–60                      |  7 | 21  |
| 61+                        |  5 | 15  |
| No Response                |  1 |  3  |
| **Qualification**          |    |     |
| Masters                    | 28 | 82  |
| Other                      |  4 | 12  |
| No response                |  2 |  6  |
| **Work setting**           |    |     |
| Government school          | 11 | 32  |
| Catholic school            | 10 | 29  |
| Independent school         |  4 | 12  |
| Private practice           |  5 | 15  |
| Community agency           |  1 |  3  |
| State health facility      |  1 |  3  |
| University clinic          |  1 |  3  |
| State EAL/D program        |  1 |  3  |
| **Sector**                 |    |     |
| Early childhood            |  9 | 26  |
| Primary                    | 16 | 47  |
| Secondary                  |  7 | 21  |
| No response                |  2 |  6  |
**Procedure**

Ethical approval was gained from The Human Research Ethics Committee at a Queensland university. The Australian Psychological Society (APS) and the Australian Psychologists and Counsellors in Schools (APACS) were contacted asking for permission to conduct the online survey on their websites. Both the APS and APACS sent a newsletter invitation to their members. The survey was available online for seven months and disseminated on the Key Survey platform. On average, the survey took 15 to 20 minutes to complete.

**Data Analysis**

The qualitative data were analysed following Braun and Clarke’s (2006) thematic analysis process. Initially, the open questions were analysed and coded, which were then organised in more general themes. On two occasions, these themes were discussed, revised and reorganised as part of the collaboration process for this research.

**Results**

**Specific training in the assessment of CALD students**

Based on the survey responses, 22 of the respondents (65%) did not have any specific training in assessing CALD students. However, the 11 professionals who had received any training (32%) reported that it was as professional development. One respondent reported that the training was conducted more than 25 years ago, another reported that their training was done as part of the master’s degree, and other respondents mentioned that it was received as a professional training course to work specifically with CALD populations. The respondents also indicated that their training included topics related to cultural awareness, psychometric assessment in Aboriginal and Torres Strait Islander populations, as well as with victims of trauma and torture. Only three participants (9%) mentioned that they were fluent in another language.

**Organisations and programs in schools**

Nearly half of the respondents reported that the organisations in which they worked have processes specifically designed for the assessment of CALD students. The assessment of English competency as well as the involvement of English as a second language (ESL) teachers, speech pathologists and external professionals were some of the more common strategies reported by the respondents. In addition, it was mentioned that there was use of nonverbal assessment tools as part of these established programs in those organisations.

For the majority of the respondents (76%) the information obtained from the enrolment process provided useful background information for the assessment of these students, especially for language development, different languages spoken at home, English language exposure, as well as schooling experience and cultural background. Just over half of the respondents (53%) reported that the ESL teacher participated from the beginning of the enrolment process.

**Methods of assessment and preformal process**

Over half of the respondents did not use any interpreting service as part of their assessment process. However, 13 respondents (38%) reported that sometimes they used this service. The reasons provided by the respondents about not using interpreters included: the lack of availability of the interpreting services and the fact that this service could be expensive. Additionally, respondents reported concerns regarding reliability of the information provided by the interpreter. It was also mentioned that if interpreting services are required, then formal psycho-educational assessments are not recommended. The respondents who used interpreting services mentioned that although some of the interpreters had
been trained, there is considerable variability in the quality of their training. Only two respondents (6%) considered their interpreters were appropriately trained.

Table 2 presents the strategies and processes used by school psychologists and counsellors prior to conducting any formal assessment on CALD students. Nearly all the respondents examined the child’s academic record (96.6%) and interviewed the teachers (93.8%). Eighty-seven percent of the respondents ruled out trauma and assessed the student’s progress in the acquisition of English as second language. The respondents also reported additional strategies, including observing and comparing siblings’ language development.

### Psycho-educational assessments

The reported frequency of different psycho-educational assessment used by the participants is presented in Table 3. The cognitive assessment most commonly used was the Wechsler Intelligence Scale for Children — 4th Edition (WISC-IV; Wechsler, 2003). A nonverbal cognitive assessment most frequently used was the Universal Non-verbal Intelligence Test (UNIT; Bracken & McCallum, 1998), while over half of the participants used the Adaptive Behaviour Assessment System — 2nd Edition (ABAS-II; Harrison & Oakland, 2003). Both the Wechsler Individual Achievement Test — 2nd Edition (WIAT-II; Wechsler, 2005) and the Woodcock Johnson Achievement — 3rd Edition (WJ-III Achievement; Woodcock, McGrew, & Mather, 2007) were used by seven participants. There were other participants who used the updated WISC-V (Wechsler, 2014), WIAT-III (Wechsler, 2009) and ABAS-III (Harrison & Oakland, 2015), depending on what year they assessed the student. The reasons provided by the majority of respondents about the use of these psycho-educational assessments involved their adequacy in assessing CALD students as well as their availability and familiarity.

### Difficulties encountered by school psychologists and counsellors

As a result of thematic analysis conducted, three main themes were found in the qualitative data: difficulties in determining language ability of the CALD student, difficulty in gathering accurate background information, and challenges in finding appropriate psycho-educational assessment tools.
Difficulties in determining language ability

The majority of respondents reported having difficulties in assessing the language ability of the CALD student in their first language. This was explained by the unreliable information that parents provided:

Table 3. Percentage of Practitioners Who Use Each Psycho-Educational Test ($N=32$)

| Psycho-educational tests               | Always/Often | Sometimes/Seldom | Never | Total |
|----------------------------------------|--------------|------------------|-------|-------|
|                                        | No | %   | No | %   | No | %   | No | %   | No |
| Cognitive assessments                  |    |      |    |      |    |      |    |      |    |
| WPPSI                                  | 7  | 25.9 | 9  | 33.3 | 11 | 40.7 | 27 |
| WISC-IV                                | 12 | 41.4 | 13 | 44.8 | 4  | 13.8 | 29 |
| SBS                                    | 0  | 0.0  | 11 | 44.0 | 14 | 56.0 | 25 |
| WJ-III Cognitive                       | 3  | 13.0 | 6  | 26.1 | 14 | 60.9 | 23 |
| Raven’s Progressive Matrices           | 2  | 7.7  | 5  | 26.9 | 19 | 73.1 | 26 |
| K-ABC                                  | 0  | 0.0  | 4  | 18.2 | 18 | 81.8 | 22 |
| Cognitive nonverbal assessments        |    |      |    |      |    |      |    |      |    |
| WNV                                    | 7  | 26.9 | 11 | 42.3 | 8  | 30.8 | 26 |
| UNIT                                   | 10 | 37.0 | 6  | 22.2 | 11 | 40.7 | 27 |
| CTONI                                  | 1  | 4.0  | 6  | 24.0 | 11 | 72.0 | 25 |
| Leiter-R                               | 3  | 13.0 | 2  | 8.7  | 18 | 78.3 | 23 |
| CAS                                    | 0  | 0.0  | 4  | 16.7 | 20 | 83.3 | 24 |
| Adaptive behaviour                     |    |      |    |      |    |      |    |      |    |
| ABAS-II                                | 15 | 53.6 | 9  | 32.1 | 4  | 14.3 | 28 |
| AAA                                    | 0  | 0.0  | 3  | 13.6 | 19 | 86.4 | 22 |
| Phonological awareness                 |    |      |    |      |    |      |    |      |    |
| SPAT, QUIL                             | 7  | 26.9 | 7  | 26.9 | 12 | 46.2 | 26 |
| Academic achievement                   |    |      |    |      |    |      |    |      |    |
| WIAT-II                                | 7  | 24.1 | 12 | 41.4 | 10 | 34.5 | 29 |
| WJ-III Achievement                     | 6  | 24.0 | 5  | 20.0 | 14 | 56.0 | 25 |
| Memory                                 |    |      |    |      |    |      |    |      |    |
| CMS                                    | 2  | 8.3  | 6  | 25.0 | 16 | 66.7 | 24 |
| WRAML-2                                | 2  | 7.7  | 6  | 23.1 | 18 | 69.2 | 26 |
| WMTB-C                                 | 0  | 0.0  | 3  | 13.0 | 20 | 87.0 | 23 |

Note: WPPSI = Wechsler Preschool and Primary Scale of Intelligence; WISC-IV = Wechsler Intelligence Scale for Children — 4th Edition; SBS = Stanford Binet — 5th Edition; WJ-III Cognitive = Woodcock Johnson Cognitive — 3rd Edition; K-ABC = Kaufman Assessment Battery for Children; WNV = Wechsler Non-verbal Scale of Ability; UNIT = Universal Non-verbal Intelligence Test; CTONI = Comprehensive Test of Non-verbal Intelligence; LEITER-R = Leiter International Performance Scale eRevised; CAS = Cognitive Assessment System; ABAS-II = Adaptive Behaviour Assessment System — Second Edition; AAA = Assessment of Adaptive Areas; SPAT = Sutherland Phonological Awareness Test; WIAT-II = Wechsler Individual Achievement Test — 2nd Edition; WJ-III Achievement = Woodcock Johnson Achievement — 3rd Edition; CMS = Childhood Memory Scale; WRAML-2 = Wide Range Assessment of Memory and Learning — 2nd Edition; WMTB-C = Working Memory Test Battery for Children.
Trying to determine the student’s language ability in their first language. Parents are not always good at determining their child’s expressive and receptive skills. They will often say that even though the child cannot speak their first language well, they understand it. (Participant 5)

Interpreting services are not always available and the service they provide is expensive. Respondents mentioned that in some cases they had to find members of the community to serve as interpreters, which may have impacted in the accuracy of the information obtained.

Gathering accurate background information
Because of language barriers and cultural differences, gathering accurate background information was a common challenge reported by the participants. In some cases, parents could not recall accurately the developmental history of the child. In other cases, parents were unfamiliar with assessment processes:

Overcoming cultural barriers with parents who may not have the same understandings of learning disabilities, explaining the need for gathering data and asking them so many ‘personal’ questions. (Participant 26)

Additionally, some behaviours were culturally biased, which was reflected in what parents considered as a learning and/or behavioural problem.

Cultural issues with boys seeming to have a ‘problem’ — with family thinking student is not trying hard enough. (Participant 28)

Finding appropriate psycho-educational assessments tools
The respondents reported that finding appropriate assessment tools was a general issue when assessing CALD students. Due to language barriers and cultural background, the identification of an appropriate assessment tool was a challenge.

Being aware that the assessment was not normed on the participants’ culture, so the results may reflect a lack of experience rather than a personal difficulty, that is, similarities/vocabulary/comprehension. (Participant 27)

The respondents also mentioned that conducting the assessment is also challenging. In many cases, the students are not familiar with assessment protocols, time management and the format of some subtests and questions. These difficulties may interfere with the results being accurate.

Cultural issues of testing — especially time-based assessments — not necessarily responded to timed tests in a way that reflects best possible ability. (Participant 28)

Assessment strategies useful for the assessment of CALD students
In addition to the challenges, the participants provided their opinions about useful strategies when assessing CALD students.

Gathering in-depth background information
Most respondents mentioned that gathering a comprehensive background is useful when trying to assess CALD students. This was achieved by using semistructured interviews with parents and trying to integrate different sources of information, that is, classroom teachers, EALD teachers, speech
therapists, and occupational therapists. Observations were also identified as useful strategies to obtain a more accurate estimate of the student’s difficulties:

*Obtaining as much background information as possible. Dynamic assessment. Informal strategies including observation in class and in a 1:1 situation, interview with student, interview with parents/caregivers. Trusting my own judgment after putting as many of the pieces of the puzzle together and being flexible to change if new information becomes available.* (Participant 20)

*Minimise the use of assessment tools that rely on language*

It was also mentioned by the participants that using informal assessment tools were useful. Games, puzzles and one on one interactions were some of the examples provided by the respondents. Using nonverbal assessments was also mentioned.

*I really liked the nonverbal administration of the UNIT. Engaging in play/puzzles. Getting them to talk about their own experiences in their country/family/community and their participation in cultural activities in their community. Gathering information from the family and wider community when possible.* (Participant 26)

For some respondents, understanding cultural characteristics was significantly relevant when assessing CALD students. For example, respondents said some cultures were dismissive of the idea of learning difficulties in their children, or parents did not have the same understanding of learning problems as teachers. In some cultures, parents thought they were being asked too many personal questions. Observations, semistructured interviews and the integration of different sources of information were some of the strategies reported as useful by the respondents.

**Discussion**

This study explored the protocols and strategies used by Australian school psychologists and counsellors when assessing CALD students. In general, the results showed that the school psychologists and counsellors who participated in this study were aware of the limitations and challenges associated with the assessment of CALD students. Their reported strategies and protocols were very close to the ones proposed by experts, which was an unexpected outcome of this study. It was thought that professionals in Australia would not assess CALD students in the most appropriate way as there are no official guidelines (Mak & Shaw, 2015). However, the sample who responded might have been biased as they considered themselves to be successful at assessing this population.

**Gathering a comprehensive background information**

Similar to the recommendations of Spinelli (2008), Fraine and McDade (2009), and Olvera and Gomez-Cerrillo (2011), the majority of the respondents reported gathering relevant and multisource background information as an initial step before any formal testing. The strategies mentioned by the participants included interviewing parents and teachers, ruling out trauma, examining previous academic records as well as assessing language development and the acquisition of English as a second language.

Although the majority of the respondents reported following a very thorough compilation of data similar to the proposed best practice, it is still unknown how this information is integrated and used as a guide for the formal part of the assessment. As suggested by Ortiz (1997) and Olvera and Gomez-Cerrillo (2011), the background information constitutes the guide for the further administration of standardised assessments. This question was raised in a similar study conducted in the United States (Vega et al., 2016). It was also acknowledged that in some instances, language barriers and
cultural differences are obstacles when collecting the background data. In some cases, the inaccuracy, lack of sources and missing important developmental information may impact on the quality of the background data.

**Missing background information**

Although best practice protocols highlight the importance of conducting basic health and medical checks on CALD students before conducting any formal testing, the participants in this study did not mention this as a practice they followed. Social-emotional assessments are required to be included, with particular attention to students from refugee background and those CALD students who may have experienced trauma. In this study, no particular assessment tools in this area were mentioned. This may be due to the survey not containing specific questions about health or medical checks, or social-emotional assessments, and is therefore considered as a limitation of the study. If such checks have not been completed, omitting information at this level would contribute to misdiagnosis and consequently the needs of the CALD student would not be met.

**Psycho-educational assessments**

As noted by Vega et al. (2016), school psychologists and counsellors need to examine formal tests to see whether they are suitable for use with CALD students. The use of background information should guide this decision. There are also available systems for examining the effects of specific tests on CALD students, such as the Cross-Battery Assessment (XBA) approach (Flanagan, Ortiz, & Alfonso, 2013), which allows tests to be assessed for their cultural loading and language demands. Using such systems allows psychologists to choose tests that will give them the most valid results for CALD students in various areas of assessment. In this study, the WISC-IV (Wechsler, 2003) and the UNIT (Bracken & McCallum, 1998) were the most frequently used tools for cognitive assessment. There were other participants who used the updated WISC-V, WIAT-III and ABAS-III, depending on what year they assessed the student. Some respondents mentioned that some of the questions and subtests are not adequate for the assessment of CALD students and that some instructions are confusing for some of them. However, either the school psychologists and counsellors did not know of any other cognitive tests or they did not have access to them.

**Training**

According to the experts, it is suggested that school psychologists, guidance counsellors and interpreters are properly trained (Fraine & McDade, 2009; Greenfield, 1997; Olvera & Gomez-Cerrillo, 2011; Scott et al., 2014). It is interesting to note that despite the lack of training reported by the majority of the respondents, they provided insightful information about the processes and the protocols they follow in the assessment of CALD students. It could be argued that this group of participants developed this awareness by personal effort and from in-service participation.

On the other hand, those participants who reported being trained provided some details regarding the content of the training they attended. This content is similar to the one proposed by Greenfield (1997) and Olvera and Gomez-Cerrillo (2011); that is, cultural awareness, specifics about certain communities (Aboriginal and Torres Strait Islander), and psychometrics.

**Schools and organisations**

Nearly half of the respondents reported that the schools and organisations in which they worked have programs specifically designed for the assessment of CALD students. These programs included the involvement of the ESL teacher, the speech pathologist and other external professionals. However,
there were no specific details provided about the quality and effectiveness of these programs. More research is needed to know the extent and appropriateness of these programs.

**Interpreters**
Interpreting services are not commonly used among Australian school psychologists and counsellors compared with other multicultural countries like the United States (Vega et al., 2016). As described by Sattler (2001), interpreters may provide inappropriate translations, and in many cases, they are unfamiliar with assessment procedures. In Australia, the high costs associated with this service may also make this option unpopular. Perhaps the use of family members could compensate for this.

**Limitations and strengths**
This study would appear to be the first to attempt to understand assessment practices of CALD students in the Australian context by school psychologists and counsellors. Although many multicultural countries such as the United States, Canada and the United Kingdom have extensive research in this area and have developed their own protocols to approach the complex assessment needs of CALD students, the unique characteristics of the Australian migratory populations require the development of specific research efforts to understand these assessment needs. The results from this study aim to open a conversation about assessment practices for CALD populations in Australia.

The study was limited by the extremely small number of respondents, despite all the efforts made to increase the sample. It is suggested for further research to obtain a more representative group of respondents, although this is becoming increasingly difficult due to time constraints of these professionals. Perhaps using social media or time before a professional event could be useful in gaining participants. Another limitation was that the survey was not piloted and therefore there was no psychometric data. The data was collected through a multichoice survey, so the qualitative data gathered in this study was restricted to the open-question format. The qualitative data was also only coded by the two authors, with no reliability coding, potentially limiting the interpretation of results. For further details about processes, case conceptualisations and analysis, qualitative research methods are suggested.

Lack of knowledge around whether or not participants were qualified psychologists is also regarded as a limitation of the study. Although most participants would be psychologists as they were recruited through the Australian Psychological Society website and the national Australian Psychologists and Counsellors in Schools website, there might have been a few professionals in Queensland administrating the same tests who were not psychologists. The differences in knowledge and practice between counsellors and qualified psychologists in schools could be analysed in future research.

**Future studies**
We compiled in this article the work of several authors around best practice in this area of assessment; however, it is unknown whether these proposed strategies are applicable to the specific characteristics of the Australian’s CALD population. The unique combination of immigrants, people from refugee backgrounds, and Aboriginal and Torres Strait Islanders has made Australian CALD’s population different from any other CALD population in the world, and consequently more research is needed to determine whether those so-called ‘best practices’ are in fact relevant in the Australian educational context. Research in this area would also contribute to the development of specific assessment protocols and policies to work with the Australian’s CALD students.

Although there is limited information about best assessment practices for CALD students in Australia, it is important to recognise the contributions and experience of many professionals who in practice have created strategies to work with these populations. Future research efforts would benefit from compiling and analysing the work of many school psychologists and counsellors in Australia who face the challenge of assessing these students.
As has been acknowledged, school psychologists and counsellors are advised to develop cultural competency and receive specific training around assessment practices with CALD students. Therefore, the contributions of future research efforts would also add value to the specialised training and development of these professionals.

Undoubtedly, the rapid diversification of the world’s population calls for a new paradigm in education, and particularly around assessment practices. This is an emergent research field in Australia with important implications in education and social development. The need for more qualitative and quantitative research is important in order to understand what works best for the assessment of CALD students, and particularly for CALD students in Australia.

References

AUSPELD. (2014). Understanding learning difficulties: A practical guide. Retrieved from http://fusecontent.education.vic.gov.au/d3f1d4f9-fefe-400f-af93-976c63459f/p/pdfs/DSF4449PracticalGuide-Accessible.pdf

Australian Bureau of Statistics. (2017). Census of population and housing: Australia revealed, 2016. Retrieved from http://www.abs.gov.au

Bracken, B.A., & McCallum, R.S. (1998). Universal Non-verbal Intelligence Test (UNIT). Austin, TX: PRO-ED.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3, 77–101.

Chapman, P., Siegel, L.S., & Gottardo, A. (2002). Reading-related skills of kindergartners from diverse linguistic backgrounds. Applied Psycholinguistics, 23, 95–116.

Crevecoeur, Y.C., & Obiakor, F.E. (2013). Culturally and linguistically diverse students labeled as having learning disabilities. In J.P. Bakken, F.E. Obiakor, & A.F. Rotatori (Eds.), Learning disabilities: Identification, assessment, and instruction of students with LD. Advances in Special Education (pp. 93–108). Bingley, UK: Emerald Group.

Everett, J., Sadeghi, A., Grech, L., El Shikh, M., Abdel-Sabour, S., . . . Elbehari, G. (2013). Assessment of literacy difficulties in second language and bilingual Learners. In D. Tsagari, & G. Spanoudis (Eds.), Assessing L2 Students with Learning and Other Disabilities (pp. 27–43). Retrieved from https://ebookcentral.proquest.com

Flanagan, D., Ortiz, S., & Alfonso, V. (2013). Essentials of cross-battery assessment (3rd ed.). Hoboken, NJ: John Wiley & Sons.

Fletcher, T., & Navarrete, L. (2011). Learning disabilities or difference: A critical look at issues associated with the misidentification and placement of Hispanic students in Special Education Programs. Rural Special Education Quarterly, 30, 30–38.

Fraiha, N., & McDade, R. (2009). Reducing bias in psychometric assessment of culturally and linguistically diverse students from refugee backgrounds in Australian schools: A process approach. Australian Psychologist, 44, 16–26.

Geva, E., & Wiener, J. (2015). Psychological assessment of culturally and linguistically diverse children and adolescents: A practitioner’s guide. New York, NY: Springer Publishing Company, LLC.

Greenfield, P.M. (1997). You can’t take it with you: Why ability assessments don’t cross cultures. American Psychologist, 52, 1115–1124.

Guiberson, M., & Atkins, J. (2012). Speech-language pathologists’ preparation, practices, and perspectives on serving culturally and linguistically diverse children. Communication Disorders Quarterly, 33, 169–180.

Harrison, P.L., & Oakland, T. (2003). Adaptive Behavior Assessment System – 2nd Edition (ABAS-2). San Antonio, TX: Psychological Corporation.

Harrison, P.L., & Oakland, T. (2015). Adaptive Behavior Assessment System – 3rd Edition (ABAS-3). San Antonio, TX: Psychological Corporation.

Kaplan, I., Stolk, Y., Valibhoy, M., Tucker, A., & Baker, J. (2016). Cognitive assessment of refugee children: Effects of trauma and new language acquisition. Transcultural Psychiatry, 53, 81–109.

Kawaja, N., McCarthy, R., Braddock, V., & Dunne, M. (2013). Characteristics of culturally and linguistically diverse mental health clients. Advances in Mental Health, 11, 172–187.

Klingner, J., Artiles, A., & Barletta, L. (2006). English Language learners who struggle with reading. Journal of Learning Disabilities, 39, 108–128.

Laing, S.P., & Kamhi, A. (2003). Alternative assessment of language and literacy in culturally and linguistically diverse populations. Language, Speech, and Hearing Services in Schools, 34, 44–55.

Mak, A., & Shaw, T. (2015). Perceptions of intercultural social challenges: Towards culturally competent counselling practice. Journal of Psychologists and Counsellors in Schools, 25, 183–199.

Meteyard, J., & Gilmore, L. (2015). Psycho-educational assessment of specific learning disabilities: Views and practices of Australian psychologists and guidance counsellors. Journal of Psychologists and Counsellors in Schools, 25, 1–12.

Ochoa, S.H., & Ortiz, S.O. (2005). Language proficiency assessment: The foundation for psycho-educational assessment of second-language learners. In R.L. Rhodes, S.H. Ochoa, & S.O. Ortiz (Eds.), Assessing Culturally and Linguistically Diverse Students: A practical guide (pp. 137–152). New York: Guilford Press.
Olvera, P., & Gomez-Cerrillo, L. (2011). A bilingual psychoeducational assessment MODEL grounded in Cattell-Horn-Carroll theory: A cross battery approach. *Contemporary School Psychology, 15*, 117–127.

Ortiz, A. (1997). Learning disabilities occurring concomitantly with linguistic differences. *Journal of Learning Disabilities, 30*, 321–332.

Ortiz, A., & Fránquiz, M.E. (2016). Co-editors' introduction: Nuanced understandings of emergent bilinguals and dual language program implementation. *Bilingual Research Journal, 39*, 87–90.

Queensland Government Department of Education. (2019). Learning and reading difficulties. Retrieved 15 March, 2019 from https://education.qld.gov.au/students/students-with-disability/succeeding-with-disability/learning-reading-difficulties

Sattler, J. (2001). *Assessment of children: Cognitive applications* (4th ed.). San Diego, CA: Jerome M. Sattler, Publisher.

Schon, J., Shaftel, J., & Markham, P. (2008). Contemporary issues in the assessment of Culturally and Linguistically Diverse learners. *Journal of Applied School Psychology, 24*, 163–189.

Scott, A., Boynton Hauerwas, L., & Brown, R. (2014). State policy and guidance for identifying learning disabilities in Culturally and Linguistically Diverse students. *Learning Disability Quarterly, 37*, 172–185.

Spinelli, C.G. (2008). Addressing the issue of cultural and linguistic diversity and assessment: Informal evaluation measures for English language learners. *Reading & Writing Quarterly, 24*, 101–118.

Sweller, N., Graham, L., & Van Bergen, P. (2012). The minority report: Disproportionate representation in Australia’s largest education system. *Exceptional Children, 79*, 107–125.

Vanderwood, M.L., Nam, J.E., & Sun, J.W. (2014). Validity of DIBELS early literacy measures with Korean English Learners. *Contemporary School Psychology, 18*, 205–213.

Vega, D., Lasser, J., & Afifi, A.F.M. (2016). School psychologists and the assessment of culturally and linguistically diverse students. *Contemporary School Psychology, 20*, 218–229.

Wechsler, D. (2003). *Wechsler Intelligence Scale for Children – Fourth Edition (WISC-IV)*. San Antonio, TX: Psychological Corporation.

Wechsler, D. (2005). *Wechsler Individual Achievement Test – Second Edition (WIAT-II)*. London, UK: Psychological Corporation.

Wechsler, D. (2009). *Wechsler Individual Achievement Test – Third Edition (WIAT-III)*. London, UK: Psychological Corporation.

Wechsler, D. (2014). *Wechsler Intelligence Scale for Children – Fifth Edition (WISC-V)*. San Antonio, TX: Psychological Corporation.

Woodcock, R.W., McGrew, K.S., & Mather, N. (2007). *Woodcock Johnson III Tests of Achievement*. Rolling Meadows, IL: Riverside Publishing.

Zimmerman, K. (2014). A literature review of the challenges & best practices for English Language Learners. *National Forum of Multicultural Issues Journal, 11*, 1–7.

Appendix

**Online survey**

**Information for participants**

This survey is for members of the Australian Psychological Society (APS) and the Australian Psychologists and Counsellors in Schools (APACS) who assess CALD students for learning difficulties. This information will assist in informing more specific and tailored professional development to assist in solving some of the difficulties in assessing CALD students.

The survey will contribute to a Master of Psychology degree undertaken at Queensland University of Technology (QUT) by the principal researcher Azucena Velasco Leon. Ms Leon is supervised by Professor Marilyn Campbell in the Faculty of Education at QUT. It is expected that this survey will take 20 minutes. The survey is completely anonymous. Although the findings of the survey may be published, none of the information you provide will be/ can be linked to you as an individual. If, after reading the information above, you agree to continue with the survey and have experience in assessing CALD students for learning difficulties, choose ‘I agree to participate’ from the options below and proceed.

We encourage participants to answer all the questions in the survey. However, if there is a question that you cannot answer, simply leave it blank and move to the next question. Should you change your mind at any time and decide to withdraw, simply close your browser and you will automatically exit the survey.
If you want more information before you decide whether or not to participate, please email Azucena Velasco Leon at azucena.velascoleon@connect.qut.edu.au or Prof Marilyn Campbell at ma.campbell@-qut.edu.au. If you do not agree to proceed with the survey, please choose ‘I do not agree’ from the options below or simply close this window to leave the survey. The Human Research Ethics Committee from Queensland University of Technology has reviewed this study and granted approval (Number: 1700000104).

1. I agree to participate in this research
   • I do not agree to participate in this research

Please answer the following questions related only when assessing SLD Specific Learning Difficulties on CALD Culturally and Linguistically Diverse primary school students.

Section 1 – Demographics

1. In which state are you currently working?
   • New South Wales
   • Queensland
   • Victoria
   • Western Australia
   • South Australia
   • Tasmania
   • ACT
   • Northern Territory
2. What is your age?
   • 20–30 years
   • 31–40 years
   • 41–50 years
   • 51–60 years
   • 61 years or over
3. What is your gender?
   • Male
   • Female
4. Are you fluent in more than one language?
   • Yes
     • If yes, Please specify: _________________________________
   • No – Skip
5. What is the highest academic degree that you have achieved?
   • Masters
   • Doctorate
   • Other (please specify): _____________
6. Employment context – Which of the following best describes your current place of employment?
   • Government school
   • Catholic school
   • Independent school
   • Other educational organisation
   • Private practice
   • Community agency
   • Other (please specify) _________________________________
   • What sector do you mainly work in
     • Early childhood, primary and special education
     • Primary
     • High school
Section 2 – Experience/Training

- Do you have any specific training in assessing children from CALD backgrounds
  Yes
  If yes, Please specify: _________________________________
  No – skip
- How many years’ experience do you have administering psycho-educational assessments to students.
  ______________________
- How many years’ experience do you have administering psycho-educational assessments for CALD primary school students?
  ______________________

Section 3 – School/Organisation

- Do the schools/organisations that you service have processes specifically designed for the assessment of CALD students?
  Yes
  If yes, please specify: _________________________________
  No – skip
- From the beginning of the enrolment process does the ESL\textsuperscript{1}/EAL\textsuperscript{2}/EFL\textsuperscript{3}/ESOL\textsuperscript{4} teacher participate?
  Yes
  No
- Is the information from the enrolment process useful for your assessment of the CALD student?
  Yes
  No
  If yes, how? _________________________________
- How many CALD students would you assess each year?
  ______________________

Section 4 – Methods of assessment

- Do you use an interpreter when assessing a CALD student?
  Yes
  Sometimes
  No
  If no, Why: _________________________________
  If yes, has the interpreter been trained?
  Yes
  No
- On a scale from 1 to 10 how appropriate has their training been with 10 being the most appropriate. Or not applicable

\textsuperscript{1}English as a second language
\textsuperscript{2}English as an additional language
\textsuperscript{3}English as a Foreign Language
\textsuperscript{4}English for speakers of other languages
18. Before you use formal assessment to assess SLD (Specific Learning Difficulties) on CALD students do you . . .

|                                       | Always | Often | Sometimes | Seldom | Never |
|---------------------------------------|--------|-------|-----------|--------|-------|
| Observe the child                     |        |       |           |        |       |
| Interview parents                     |        |       |           |        |       |
| Interview teachers                    |        |       |           |        |       |
| Interview other professionals         |        |       |           |        |       |
| Examine the child’s academic records |        |       |           |        |       |
| Rule out trauma                       |        |       |           |        |       |
| Assess the student’s language development in their native language | | | | | |
| Assess the student’s progress in the acquisition of English as second language | | | | | |

Other (please specify): ___________________________________

Section 5 – Formal assessment

19. Please indicate how often you use each of the following psycho-educational assessments in students from CALD populations.

| Assessment                                      | Always | Often | Sometimes | Seldom | Never |
|-------------------------------------------------|--------|-------|-----------|--------|-------|
| Wechsler Preschool and Primary Scale of Intelligence (WPPSI) |        |       |           |        |       |
| Wechsler Intelligence Scale for Children – 4th Edition (WISC-IV) |        |       |           |        |       |
| Stanford Binet – 5th Edition                    |        |       |           |        |       |
| Woodcock Johnson Cognitive – 3rd Edition (WJ-III Cognitive) |        |       |           |        |       |
| Wechsler Nonverbal Scale of Ability (WNV)       |        |       |           |        |       |
| Universal Nonverbal Intelligence Test (UNIT)     |        |       |           |        |       |
| Comprehensive test of Non-verbal intelligence   |        |       |           |        |       |
| Leiter-R                                         |        |       |           |        |       |
| Cognitive Assessment System (CAS)               |        |       |           |        |       |
| ABAS – II                                        |        |       |           |        |       |
| Assessment of Adaptive Areas (AAA)              |        |       |           |        |       |
| Raven’s Progressive Matrices                   |        |       |           |        |       |
| Kaufman Assessment Battery for Children (K-ABC) |        |       |           |        |       |
| A test of Phonological Awareness (e.g., SPAT, QUIL) |        |       |           |        |       |
| Wechsler Individual Achievement Test – 2nd Edition (WIAT-II) |        |       |           |        |       |
| Woodcock Johnson Achievement – 3rd Edition (WJ-III Achievement) |        |       |           |        |       |
| Childhood Memory Scale (CMS)                   |        |       |           |        |       |
| Wide Range Assessment of Memory and Learning – 2nd Edition (WRAML-2) |        |       |           |        |       |
| Working Memory Test Battery for Children (WMTB-C) |        |       |           |        |       |
Other (please specify): ___________________________________

20. What are the major reasons that you chose these particular psychometric tests? You may choose more than one reason.

| Reason                                                                 | Always | Often | Sometimes | Seldom | Never |
|------------------------------------------------------------------------|--------|-------|-----------|--------|-------|
| They are the only tests I have access to.                              |        |       |           |        |       |
| I am more familiar with these tests                                   |        |       |           |        |       |
| I consider these tests the most appropriate for CALD students         |        |       |           |        |       |
| These tests are quick and easy to administer                          |        |       |           |        |       |
| These tests are inexpensive                                           |        |       |           |        |       |

Other (please specify): ___________________________________

21. What are the most common difficulties you have encountered when trying to assess Specific Learning Difficulties (SLD) on children from CALD populations?

_________________________________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________

22. What assessment strategies have you found most useful for CALD populations?

____________________________________________________________________________________________
____________________________________________________________________________________________
____________________________________________________________________________________________
____________________________________________________________________________________________
____________________________________________________________________________________________

Thank you for your time in answering this questionnaire.
We very much appreciate your participation in our research.
By submitting this survey you provide consent.
• Submit

Cite this article: Velasco Leon A and Campbell M (2020). Assessment of academic difficulties in culturally and linguistically diverse school students. *Journal of Psychologists and Counsellors in Schools* **30**, 25–42. [https://doi.org/10.1017/jgc.2020.5](https://doi.org/10.1017/jgc.2020.5)