

Contextually relevant resources in speech-language therapy and audiology in South Africa – are there any?*

ABSTRACT

In this editorial introduction we aim to explore the notion of contextually relevant resources. We argue that it is the responsibility of speech-language therapists (SLTs) and audiologists (As) working in South Africa to develop contextually relevant resources, and not to rely on the countries or cultures where the professions originated to do so. Language is often cited as the main barrier to contextually relevant resources: most SLTs and As are aware of the need for more resources in the local languages. However, the issue is not as straightforward as translating resources from English into other languages. The challenges related to culture, e.g. formal education and familiarity with the test situation, have to be considered, as well as the population on which norms were obtained and the nature of vocabulary or picture items. This paper introduces four original research papers that follow in this edition of the journal, and showcases them as examples of innovative development in our field. At the same time we call for the further development of assessment materials, intervention resources, and contributions to the evidence base in our context. We emphasise the importance of local knowledge to drive the development of these resources in innovative and perhaps unexpected ways, and suggest that all clinicians have an important role to play in this process.

Keywords: resources, development, speech-language therapy, audiology, culture

'The responsibility to provide culturally appropriate material for our work lies within the countries to which the profession has extended.' (Watson, 2006, p. 154).

Around the world, the professions of speech-language therapy (SLT) and audiology (A) face challenges that have been well documented: services for people with communication difficulties often have low priority in health care systems; the professions straddle education and health and are not always fully understood by each sector; resources are limited; the professions are relatively small and relatively new (Enderby & Emerson, 1995; Hartley, 1998; Nippold, 2010; Swanepoel, 2006). In South Africa these challenges are especially intense: there are an insufficient number of SLTs and As to provide services to all people; the qualified SLTs and As do not represent the linguistic and cultural diversity of the country's population and are unequally distributed between the private and public sectors; the burden of infectious disease is high; health priorities often centre on saving lives rather than improving quality of life; and the research/evidence base is lacking for the context (Penn, 2007).

Along with these challenges come opportunities. In this journal and others, much has been made of the need for the professions of SLT and A to transform and develop their practice, and to make our research and practice relevant for the local context (Kathard, Naude, Pillay & Ross, 2007). One way in which the professions can start to meet these challenges is through the development of contextually relevant resources tailor-made for the local context. In this paper we explore what is meant by contextually relevant resources and practices, why developing and disseminating such resources is important, and what has already been done towards this goal, and finally we suggest ways to participate in this process.

This editorial introduction grew from discussions about the papers that were submitted and accepted for publication in *SAJCD* this year. In a seeming coincidence, each of these has innovation and development of resources and practices for the South African context as a linking theme. Rogers, De Wet, Gina, Louw, Makhoba and Tacon (this issue) describe the translation of the Vertigo Symptom Scale into Afrikaans, and its ability to differentiate between patients with and without vertigo. Strasheim, Louw and Kritzingner (this issue) describe the development of a locally relevant neonatal communication intervention tool for use by clinicians in the neonatal nurseries of public hospitals in South Africa. Uys and Van Dijk (this issue) developed a music perception test for adult hearing aid users. Finally, Crewe-Brown, Stipinovich and Zsilavec (this issue) detail communication difficulties in individuals

who have experienced mild traumatic brain injury, from a spouse's perspective. This last study focused on communication in everyday contexts and explored ways in which communication can be evaluated in the absence of formal assessment procedures and functional rating scales. Rather than being a coincidence, this group of papers may serve to highlight the need for development of locally relevant resources and the way in which local researchers are rising to this challenge. Before describing what is meant by contextually relevant resources, it may be helpful to provide an overview of our current context.

The current context: speech language therapy and audiology in South Africa

South Africa has experienced major socio-political changes over the past 20 years. In 1994, the first democratic government was elected into power, and transformation of all sectors – health, welfare, education – began. The impact of Apartheid in South Africa prior to 1994 cannot be underestimated, and many of today's pressing social issues (e.g. poverty, illiteracy) are linked to its legacy. For example, black and coloured South Africans experienced great educational disadvantages that continue to have major consequences today: an estimated 15 million people cannot read or write, and one in every five South Africans over the age of 20 years has not received formal education. High rates of migration, overcrowded living conditions, family violence, teenage pregnancy and substance abuse contribute to family and social difficulties in many communities (Kagee, 2008).

In line with its progressive constitution, South Africa aims to provide all of its citizens with equal access to quality health care and education. But transformation is an ongoing process, not without challenges: Despite a high incidence of HIV/AIDS and tuberculosis (TB), the South African public health system is characterised by sub-optimal provider-to-client ratios and insufficient material resources. Education has been described as being in crisis, with national benchmarking studies suggesting that reading and writing is not being effectively taught in our schools (Mullis, Martin, Kennedy & Foy, 2007).

The professions of SLT and A have also changed considerably since 1994 in response to the changing milieu. Swanepoel (2006) describes attempts to 'improve imbalanced service delivery, redress teaching programmes and focus ... research endeavours on the specific needs of the contexts' (p. 264). Moodley, Louw and Hugo (2000) describe the failure of traditional institution-based models of service delivery to reach the majority of people, especially those disenfranchised and disadvantaged, who may need our services the most. Services are now focused on the community and delivered within a primary health care framework, in an attempt to address the needs of the population. In addition, the role of the SLT and A in schools is being redefined. A

*This title is adapted from the title of a paper by Mahlalela-Thusi and Heugh (2010) entitled 'Terminology and school books in southern African languages: aren't there any?'

special edition of this journal is due towards the end of the year, and will have education as its focus.

South Africa has a diverse multicultural and multilingual population. Of an estimated 47 million people, 79% are black, 9% are coloured, 9% are white, and 2.5% are of Indian/Asian origin. Officially there are 11 languages, but many more unofficial languages and dialects are spoken. The most widely spoken languages in the country are isiZulu (23.8%), isiXhosa (17.6%) and Afrikaans (13.3%) (Statistics South Africa, 2005). However, the majority of SLTs and As working in the country are white English- or Afrikaans-speaking; as a result, speakers of the indigenous languages have invariably been under-served (Penn, Frankel, Watermeyer, & Muller, 2009). The majority of health interactions are mediated by a third party, and more than 80% of these interactions between clients, a third party and health professionals take place across linguistic and cultural barriers (Penn *et al.*, 2009). In a small-scale survey of SLTs working in the Western Cape, Pascoe, Maphalala, Ebrahim, Hime, Mdladla, Mohamed & Skinner (2010) found that a considerable proportion of SLTs are able to offer therapy in only English or Afrikaans – even when working with children for whom these are second or third languages. There is a fundamental challenge here: ethical guidelines suggest that an individual should not be denied intervention because of a language mismatch with the clinician, but SLTs or As may not be competent to offer intervention in all languages. A study by Jordaan and Yelland (2003) attempted to determine how South African SLTs provide language intervention for multilingual language-impaired children. The results indicated that the majority of SLTs were providing language therapy to multilingual children in the child's second language only – usually English. The authors attributed this to parental insistence and a lack of another common language between the SLT and child.

What is meant by contextually relevant resources (and why are they important)?

Contextually relevant resources are any tools (assessments, intervention programmes, guidelines and norms) that are available for SLTs and As to use with a specific population in a specific setting, and that have been developed with that population and setting in mind. Many of the assessments and therapy resources in use in South Africa today have been developed by clinicians and researchers in countries such as Australia, the UK or the USA, and are used here in the absence of contextually relevant resources, sometimes with adaptations that make them more appropriate.

In the case of standardised assessments, these will be accompanied by a set of norms against which clinicians can compare the performance of the specific individual they have assessed on a given day. This assessment procedure and comparison against norms requires a number of assumptions on the part of the clinician-assessor: firstly that the test was administered in the exact way described in the manual, and secondly that the individual-client whose performance is compared with the norms comes from the same population as that from which the norms were obtained.

The first point is more easily addressed in our context, but to address the second may not be possible, and therefore results must be treated with caution. Stanczak, Stanczak and Awadalla (2001) found that typical Sudanese adults attained scores on the Arabic version of the Expanded Trail Making Test that were similar to those attained by US adults with brain damage. This suggests that simply translating the language of a test does not make it appropriate for another population group, as the culture and context of the target population needs to be considered to avoid misinterpretation of results. In another study, Boivin (1991) found that children in Zaire performed significantly below the norms of age-matched American children on a number of non-verbal assessments widely held to be 'culture-fair' measures of cognitive abilities. He suggested that even supposedly 'culture-fair' assessments have to originate from somewhere, in this case that of Western psychological research and theory, which has several fundamental underpinnings and assumptions about the way the world works that may be inappropriate when used elsewhere.

In South Africa, Wilson and Moodley (2000) determined that the use of the CID W22 wordlist (a speech discrimination test developed in the USA and widely used by South African audiologists) was problematic because normal-hearing, first-language South African English speakers performed more poorly than their US counterparts on whom the norms are based. Pahl and Kara (1992) assessed 60 typically developing children in South Africa using the Renfrew Word Finding Scale, a test which has been developed and standardised in the UK. Even though the South African children were first-language speakers of English with no language difficulties, a significant proportion of the children's test scores fell in the range suggesting language difficulties.

It is widely acknowledged that assessment is the cornerstone on which intervention should be built. If assessment is inappropriate or inaccurate and does not take cultural variation and the potential for cultural bias into account, assessment results will not be accurate and intervention may be inappropriate at best or harmful at worst (Carter, Lees, Murira, Gona, Neville & Newton, 2004). Since it is the ethical and professional responsibility of SLTs and As to provide an equitable and quality service to all, the importance of using culturally fair assessment tools cannot be overemphasised. Similarly, using inappropriate assessment tools in research can confound results and lead to biased conclusions. Irrespective of the languages involved, it is clear that translation of a test does not necessarily make it suitable for use in another setting with a different culture.

Not only assessment but intervention too should be appropriate for the culture. Vocabulary, stereotypical concepts, high-frequency words, body language and gestures differ between cultures and languages. It may be necessary to look at the language structure of words in different languages, because some intervention strategies commonly used with one language may not be applicable when used with another. For example, cuing words using the initial consonant sound as for English (Greenwood, Grassly, Hickin & Best, 2010) may not work well with languages such as isiXhosa or Sesotho, which typically begin with a vowel sound (Gxilishe, 2004). We know that intervention is more valid when it is relevant and culturally acceptable, and therefore it must be tailored specifically to the culture of the individual and the community culture (Hartley, Murira, Mwangoma, Carter & Newton, 2009).

There is growing recognition of the necessity for developing or adapting assessment tools and procedures to match the needs of the populations. Carter *et al.* (2004) emphasise the need to develop culturally appropriate materials that meet the needs of a specific culture, and to take cultural variation and potential cultural bias into consideration. In their Kenyan-based study they found that the following factors should be taken into account by clinicians assessing or treating children from a culture different to their own: the influence of culture on performance, familiarity with the testing situation, the effect of formal education, and picture recognition. Gladstone, Lancaster, Umar, Nyirenda, Kayira, Van den Broek & Smyth (2009) described a qualitative methodology using focus groups to identify contextually important concepts and developmental milestones when creating a developmental assessment tool for Malawian children, rather than simply translating and adapting available 'Western' tools. The results from their focus groups identified social milestones and social intelligence as important aspects of development for the community, which would have been neglected in a 'Western' test.

Local knowledge

Local knowledge refers to the 'unique locally-available knowledge, innovations, technologies, practices, resources and their utilisation for improved livelihoods, beliefs and their contribution to the wellbeing of communities' (Nhemachena, Chakwizira, Dube, Maponya, Rashopola & Mayindi, 2011, p. 2). Authors such as Pillay (2003), Kathard *et al.* (2007) and Joubert (2010) have variously described the origins and flawed epistemologies of the SLT, A and occupational therapy (OT) professions in South Africa. Essentially, in these (and other) professions, ways of working have been developed in the Western world that may not be appropriate for other cultures and contexts. Joubert (2010),

writing about OT, a profession that shares much in common with ours, describes 'a coming of age ... a stage now when [we] have used [our] resilience to really change those flaws of the past ... now recreating a new and more robust and appropriate Africanised epistemology' (p. 26). Kathard (2005) describes a troubled and contradictory professional identity, but suggests that the way we view ourselves as professions is not set in stone and is in the process of transforming. We believe that the innovative development work described in the journal signals a coming of age in our professions, although clearly there is much more to be done.

Local knowledge must be valued and used to inform the development of contextually relevant resources. To illustrate this, we use the case of isiXhosa phonology. While there is a substantial amount of research surrounding children's speech sound acquisition in English, most of this has been conducted with children in Europe, North America and Australia. To date, there is no tool available to comprehensively assess isiXhosa phonology. There are standardised assessments of children's speech that have been developed in other parts of the world, e.g. the Goldman-Fristoe Test of Articulation (Goldman & Fristoe, 1986). Using the picture stimuli from this test with isiXhosa-speaking children would be helpful in providing some insight into the child's difficulties and can be used to provide some qualitative information. In the survey by Pascoe *et al.* (2010), it was found that Western Cape SLTs rely largely on informal assessments when evaluating children's speech. They make adaptations to formal assessments, as well as using other informal assessments of their own design. More than 50% of therapists indicated that they make adaptations to formal tests to better suit the population, e.g. translating the assessment and using more contextually relevant pictures. These SLTs will often omit items or sections of formal assessments that are not appropriate for their clients, and will administer tests in non-standardised ways, e.g. repeating instructions or test items.

However, the isiXhosa phonemic inventory contains consonants that do not occur in English and may not be elicited by these pictures. The clinician would need to know what the correct vocabulary items/names were and what the correct production of the names are. S/he would need to know what the vowel and consonant inventory of isiXhosa looks like to know whether the child's inventory was complete or not. Once this information was gathered s/he would need to know whether the child's speech was acceptable/typical for the child's age: what are the typical processes used in isiXhosa and when do they appear/disappear? These processes might not be the same as for English, given that the language structures are different, e.g. isiXhosa does not typically have closed syllables and therefore final consonant deletion would not be expected. This illustration shows not only the need for development of resources, but also the need for development of local knowledge to drive the process. It illustrates that starting from a blank page may in fact be easier than trying to adapt something that has been developed for an entirely different population, in a different place, speaking a different language.

Gxilishe (2004) conducted a study in the Western Cape, looking at the acquisition of clicks by isiXhosa-speaking children. He found that at the onset of speech (approximately 1 year of age) isiXhosa-speaking children begin using three basic clicks. Such studies are important in advancing our knowledge of speech and language development in the local context; however, further research is needed.

Contextually relevant resources – what has been done (and where is it hiding)?

This edition of *SAJCD* showcases some original research around the development of locally relevant resources. The two audiology papers (Rogers *et al.*, this issue; Uys *et al.*, this issue) add to a small but growing body of research in the field of South African audiology. Panday, Kathard, Pillay and Govender (2007, 2009) as part of an ongoing larger project have described the development of isiZulu speech materials for use in speech audiometry, and Khoza, Ramma, Mophosho, and Moroka (2008) have examined alternative ways of carrying out speech

audiometry with bilingual Tswana/English speakers. While much of the research in audiology focuses on development of assessment materials, there is also work that has focused on development and evaluation of interventions (e.g. Pienaar, Stearn & Swanepoel, 2010) and culturally relevant local knowledge regarding hearing impairment (De Andrade & Ross, 2005).

In this issue, the paper by Strasheim and colleagues focuses on the development of an early intervention tool applicable to the local context. Both SLTs and As participated in the first phase of the study, which aimed to identify specific needs regarding clinical resources for use in neonatal nurseries. Participants noted that culturally appropriate instruments were needed specifically for parent guidance and staff/team training. In response, the next phase of the study focused on development of a neonatal communication intervention programme for parents, the aim of which was to inform parents about prematurity and ways of developing early communication development. Handouts were written in English and isiZulu. The final phase of the study saw the piloting of the programme with two therapists. In education, Wium, Louw and Eloff (2010) developed a continuing professional development (CPD) programme for educators to support them in their teaching of literacy and numeracy.

Other studies that have focused on development of SLT assessments include Fouche and Van der Merwe (1999), who described the development of a Sepedi speech intelligibility test, and Buitendag, Uys and Louw (1998), who evaluated the suitability of the Afrikaanse Receptiewe Woordeskattoets (Afrikaans Receptive Vocabulary Test). Watt, Penn and Jones (1996) examined the ecological validity of a test battery for evaluating communicative effects of closed head injury. The study (this issue) by Crewe-Brown and co-authors details the communicative difficulties faced in their daily life by individuals with mild traumatic brain injuries (MTBIs). Using a case study approach, the authors show the value that 'significant others' can bring to understanding and supporting the individual with MTBI, an approach that could have far-ranging applicability in our context.

In this section we have highlighted some of the work that has been done in our fields, rather than carrying out an exhaustive review. Our survey focused on studies that have been published, but there is a wealth of unpublished work that has been carried out by undergraduate students for their final-year projects or by postgraduate students. The old adage 'publish or perish' may be particularly pertinent here, not only to individual academic careers but also to the professions as a whole: we have to share what we have done in order to advance our knowledge. Numerous authors have urged us to carry out more research and publish our findings: Swanepoel (2006) calls for more studies in the local context to determine the prevalence of hearing loss and accurately describe the status of services currently available for those with hearing impairments in South Africa. Without this information, Swanepoel argues, legislative support and associated funding will not be forthcoming. Penn (2007) decries the lack of quality, local research and urges all SLTs and As – and especially clinicians – to carry out research. While our agenda may be to develop local knowledge and resources, we should not be limited to publishing our work in local journals only, since many of the issues relevant to our context will have relevance for other developing settings, and there is worldwide interest in the unique languages and mix of cultures of our country.

Re-inventing the wheel or borrowing from our friends?

Indigenous knowledge can be effectively combined with external or scientific knowledge during the innovation process. Hartley *et al.* (2009) reviewed the literature related to service development for individuals with communication difficulties in developing contexts. They suggest that Western techniques and interventions cannot be rolled out to African countries without appropriate adaptation because of cultural and language differences; environments and climates and stages of social development. However, they also noted that 'with cooperation, flexibility and humility, nations could work together to

their mutual advantage using the underlying principles learnt in the West, together with local knowledge to develop appropriate training and services (p. 279)'. While it may be necessary to start from a blank page, free of assumptions, there is of course much valuable information and many lessons to be learnt from resources and knowledge developed elsewhere. Publishing or presenting work at conferences is a valuable way to share resources and knowledge through a common forum which could advance the development of such assessments in a systematic manner and ensure that new SLTs and As or those setting up services would not have to 're-invent the wheel.' Joubert (2010) acknowledges the importance of developments around the world and suggests that it would be 'both naïve and foolish not to prepare South African occupational therapists to be able to work anywhere in the world. It is however of foremost importance that they are competent in dealing with the particular health needs of South Africa's diverse population where the need for appropriate health care is greatest' (p. 22). We believe the same is true for South African SLTs and As, whether working in education or health.

Priorities and next steps

In South Africa there is a great need to develop contextually relevant resources for our professions. Clinicians in the study by Pascoe *et al.* (2010) noted that an assessment tool in the most dominant languages in the Western Cape would be of value to them, and they suggested that this would increase their level of confidence when working with multilingual children. There is also a need for intervention resources and studies on the South African population in order to build an evidence base for the different approaches used. It may be that the natural order of this development is for assessment materials to be most needed and developed first, followed by the intervention tools and then the systematic evaluations thereof. But clinicians should be driven by their own needs. What is it that is needed to maximise our role? How can we add more value and relevance to the work we do with individuals with communication and swallowing difficulties? We should not only look to others to meet these needs, but should use our own knowledge, that of our colleagues and that of the clients we serve to move forward in this task. There is nothing wrong in starting small: modifying wordlists, devising new protocols and reflecting on our daily practice – all are valuable beginning points. We must collaborate with each other at a national level and share the gains we make. A national project under the leadership of Associate Professor Shajila Singh of the University of Cape Town focuses on the development of materials in the indigenous local languages and aims to encourage such collaborations and develop knowledge of the process. This is not a project for academics only, but also for all SLTs and As, as well as colleagues working in disciplines such as linguistics and psychology.

In essence, our answer to the question posed in the title of this paper is: Yes – there are contextually relevant resources for SLTs and As. However, as for Mahlalela-Thusi and Heugh (2010), who examined the development of textbooks in the indigenous languages in Southern Africa, there is a great need for development of more resources, and further work to improve quality of the resources available for local populations. Further, these resources need to be published and shared so that we can build on what has been done. This paper has aimed to move away from mere rhetoric and focus on the practicalities of our challenge. Our hope is that all SLTs and As – especially clinicians who bemoan the lack of suitable resources – will be inspired to start innovating, collaborating and sharing. The papers that follow showcase some of the varied ways in which this can be done.

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