Adapting the Multilingual Assessment Instrument for Narratives to Saudi Arabic

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The purpose of this paper is to elaborate on the challenges of adapting the Multilingual Assessment Instrument for Narratives (MAIN) to Saudi Arabic. The paper also describes a pilot study in which MAIN was adapted to Saudi Arabic and provides an overview of the research on assessment of Arabic narratives that used MAIN. Although a Lebanese Arabic version was already available, it is unsuitable for children who speak the Saudi dialect and the Saudi MAIN was therefore developed.

1 Introduction

Narrative skills are often assessed to measure a child's academic skills. The ability to tell or retell stories and respond to comprehension questions are prerequisites for literacy skills, which are, in turn, essential for academic achievement (Berman & Slobin, 1994). Narrative skills reflect certain social-cognitive and metacognitive-related attributes (i.e., organization, coherence, attention to the listener's needs, and awareness of the listener's state of mind) (John, 2001). Therefore, narratives provide rich cognitive and linguistic data and reflect children's social skills (Spencer et al., 2019). In recent years, the number of children who grow up speaking two languages has increased dramatically. It is challenging to evaluate the narrative

abilities of bilingual children because the tools to assess such skills are designed for monolingual speakers. Thus, they are not appropriate for cross-cultural assessments (Maviş et al., 2016). To overcome some of these limitations, Gagarina et al. (2012) designed the Multilingual Assessment Instrument for Narratives (MAIN) to assess narrative skills in multilingual children and enable parallel assessment in their two languages. It was subsequently revised in 2019 (Gagarina et al., 2019). MAIN is suitable for children aged 3–10.

MAIN includes a protocol for evaluating the production and understanding of macrostructure components: story structure, the complexity of narratives and internal state terms of the characters. The instrument includes two pairs of stories in the form of picture sequences: the first pair consists of the *Cat* and *Dog* stories, and the second of the *Baby Birds* and *Baby Goats* stories. The Cat and Dog stories were developed completely for the MAIN. The Baby Birds story was inspired by the Cat tale, while the Baby Goats tale was somewhat inspired by the fox's tale (Hickmann, 2002; Gülzow & Gagarina, 2007).

The MAIN stories have the same episodic structure, but they differ in the number of protagonists. The *Cat* and *Dog* stories have three characters, while Baby Birds and Baby Goats have five. Each story was designed with six color pictures that act as visual cues for elicitation, and the pictures are arranged in a foldout book. The sequence of a character's goals, attempts, and outcomes is shown in a series of two pictures, with each series comprising an episode. Each episode offers the child an opportunity to produce the story elements for macrostructure analysis. Three episodes are included in each story and there are three ways to narrate the stories: retelling, telling, and model story. MAIN also includes ten comprehension questions for each story.

This paper discusses the challenges of adapting MAIN to Saudi Arabic, describes a pilot study on using MAIN in Saudi Arabic, and provides an overview of research on Arabic narratives that have used MAIN. Section 2 provides information on the characteristics of the Arabic language, while Section 3 discusses the studies that have analyzed narratives using the other Arabic versions of MAIN. Section 4 explains the Saudi Arabian adaptation process. Section 5 presents a pilot study of the Saudi Arabic version of MAIN, and Section 6 describes the challenges faced in adapting it to Saudi Arabic from English. Finally, a short conclusion in completes the paper (Section 7).

2 Arabic: A brief overview

An important characteristic of Arabic script is that most vowels are not written, which differs from Latin and Cyrillic scripts. In Arabic, there are three types of word order: VSO, SVO, and OVS. The most common word order is VSO (verb–subject–object), where there is a verb at the beginning of the sentence. SVO (subject–verb–object) is also a standard structure, while in some cases, the word order is OVS (object–verb–subject). Additionally, in Arabic, the adjective is usually placed after the noun it modifies. Arabic also differentiates between masculine and feminine in nouns, adjectives, and verbs (Albaqami, 2020). For instance, gender can be distinguished through a word without knowing the context of the sentence. The word 'Muslims' is a good example of this. Among English speakers, the term refers to all Muslims, but to an Arabic native speaker, it refers specifically to men, with 'Muslima' being a corresponding term

for women. Additionally, Arabic has a 'dual' form, which differs from many other languages that only have singular and plural forms (Albaqami, 2020). For example, the term 'Muslim' has a dual masculine form, 'Muslimân,' and a dual feminine form, 'Muslimatân.' Thus, each language has its own set of words, some of which are difficult to translate directly; when translated into English, they need more than one word to describe their true meaning. These words often need more than one English word to capture their true meaning.

Arabic has three primary forms: Classical Arabic, Modern Standard Arabic (MSA), and colloquial Arabic (Albirini, 2016). The first form is the classical language, which is known as the Quranic language. It is the language of the Qur'an, the Muslim holy book, and it is the language in which religious rituals are performed. The second form is MSA, which is widely used on television, radio, in newspapers, literature, religious sermons, children's media, and the education system. The third form is the colloquial language, which differs from one Arab country to another. Each region has its own dialect, with unique distinguishing grammatical, morphological, phonetic, and semantic characteristics. There are five groups of Arabic dialects. First, the Egyptian dialect includes the Egyptian civil dialect (Alexandrian and Saidi), Sudanese (Jubian in southern Sudan and Nubian in Uganda and Kenya), and Chadic (Nigerian dialect). Second, the Levantine dialects include the Lebanese, Syrian, Palestinian, and Jordanian dialects. Third, the Iraqi dialects include the southern and northern Celtic dialects. Fourth, the Maghreb dialects include the Moroccan, Algerian, Tunisian, and Libyan dialects. Finally, the dialects of the Arabian Peninsula include the Gulf dialects (Emirati, Bahraini, Hasawi, Qatari, and Kuwaiti dialects), the Saudi dialects (Najd, Hijaz dialect, and southern dialect) and the Yemeni dialect. Each of these can be further divided into subdialects (Albirini, 2016). The dialects spoken at home are an important factor in how many cultures maintain their identities (Verdon et al., 2014).

Colloquial Arabic is generally used to communicate orally within Arab societies, and children acquire it from their parents, siblings, and other community members. In contrast, MSA is the language that is primarily used for reading and writing in formal education. It is important to note that each of these forms serves a different purpose.

3 Research using MAIN in Arabic

A limited number of studies have analyzed narratives using the previously existing Arabic version of MAIN, which is only suitable for Lebanese, Palestinian, Syrian, and Iraqi Arabic speakers (Fiani et al., 2020; Fiani et al., 2022; Haddad, 2022). Fiani et al. (2020) conducted the first published study using the Lebanese Arabic MAIN, investigating the development of narrative comprehension among 48 bilingual Lebanese Arabic–French children aged from 4 to 9 years. The findings indicated that comprehension varied significantly with age, regardless of language dominance, and that there was no difference between languages. The results also demonstrated no major differences in comprehension between Lebanese Arabic and French among bilingual children. This could be because the children had spoken Arabic and French since they were 3 years old, and they resided in a community that widely speaks both languages. Moreover, according to a later study conducted by Fiani et al. (2022), age effects were found

across all measures of macrostructure production, including story structure, structural complexity, and the use of internal state terms.

Haddad (2022) studied the narrative skills of Lebanese Arabic–Swedish-speaking children (N= 100), aged 4 to 7 years in Sweden. The Lebanese Arabic and Swedish versions of MAIN were used to assess their narrative macrostructures. This included language differences, age differences, and the effects of the task. The results demonstrated that story structure and narrative comprehension in both Arabic and Swedish developed with age. The ability to comprehend and produce Arabic was higher among older children whose parents primarily communicated in Arabic with them. Moreover, children who scored high in Swedish were older and began speaking Swedish at an early age.

Thus, the above review of the literature demonstrates that relatively few studies have examined the Arabic version of MAIN. No studies have focused on Saudi Arabia, which is a research gap that the current study aims to fill.

4 The adaptation of MAIN to Saudi Arabic

MAIN has been translated and adapted into over 90 languages, including an Arabic version that is suitable for use with Lebanese, Palestinian, Syrian, and Iraqi Arabic speakers (Bohnacker & Haddad, 2020). These varieties of Arabic are significantly different from the dialects spoken in Saudi Arabia, and it is challenging for young speakers of Saudi Arabic to comprehend other dialects. Hence, MAIN needed to be adapted for the Saudi context, focusing on the Najd, Hijaz, and southern dialects. To achieve this, a Saudi pilot version of MAIN was first created. The researcher, Turkaih Alqahtani, a native speaker of Saudi Arabic, translated MAIN from the English version (Gagarina et al., 2019) in February 2023. The translation was then checked by three native Saudi Arabic speakers: Deema Turki, Muhammad Al Zaidi, and Hala Alshahrani. Following comparison, discussion, and translation, a consensus was reached. Finally, to determine the optimal wording for MAIN, and because some words proved challenging to translate, seven native Saudi Arabic speakers provided further advice. Words and phrases that sound natural in colloquial Saudi Arabic had to be carefully selected so that they could be properly comprehended by children.

5 The pilot study

In April 2022, Alqahtani used the Saudi Arabic version of MAIN to collect data from Arabic monolingual (N=6) and Arabic–English bilingual children aged 8 to 10 years (N=6). The author recruited children in Auckland City, New Zealand and Riyadh City, Saudi Arabia. Saudi Arabic monolingual children and Saudi Arabic-English bilingual children were evaluated. The main aim was to determine whether children who spoke Saudi Arabic could understand the processes and materials of MAIN. For example, Alqahtani was interested in determining how effective the prompting and comprehension questions were in the Saudi Arabic version of MAIN. The pilot study also aimed to analyze and address any potential difficulties regarding the parent questionnaire. Another objective of the pilot project was to consider which factors of age and gender affected the results.

In terms of the procedure of the pilot study, background information was also collected from parents using a questionnaire. Each child was tested individually by Alqahtani. Bilingual children were tested at a library in New Zealand (the Auckland area) in the first session. However, as a result of COVID-19, the second session took place through Zoom. Monolingual Arabic children located in Riyadh were tested via Zoom in a single session. The session lasted for a duration of 20–40 minutes, depending on the pace of the child. The Dog and Cat stories were used in the retelling procedure, while the Baby Birds and Baby Goats stories were used in the telling process. Both Arabic and English were assessed in the bilingual group. All bilingual children were tested on four stories: two stories for storytelling in Arabic and English, and two for story retelling in both languages. The testing interval between the two languages was one week for bilingual children. Monolingual children were assessed using two stories. The final analysis focused on comprehension, where children were asked ten comprehension questions and were scored based on their responses.

The pilot study indicated that children had no difficulty completing the data collection tasks, with each session taking between 20 and 40 minutes. The Saudi version of the MAIN assessment was effectively applied. We also examined the effect of age and gender on story production and comprehension. Age and gender were not found to affect narrative skills because our sample size was small. The revised Saudi Arabic version, based on the results of the pilot study, was published as part of *ZAS Papers in Linguistics*, vol. 64.

6 Challenges in adapting MAIN to Saudi Arabic

Some challenges were associated with converting narrative texts from one language to another. First, the children could not understand some questions about the characters' internal states, such as 'How does the dog feel?'. This is because the questions about emotional states were directly translated from English. Thus, various Saudi Arabian phrases and wording similar to the English questions were tested to determine whether they elicited the appropriate responses. After consulting many native speakers of Saudi Arabic, the experimenter agreed to change the word 'feeling' to أحس (aiḥse), which we considered a synonym. Second, the Hijaz dialect, which differs from the Najd and southern dialects, was found to be particularly challenging. Deema Turki developed the Hijaz version. We added alternatives to the questions and prompts and presented them alongside the other Saudi dialects. These alterations did not influence the responses. Alqahtani tested the Hijaz dialect by collecting data from monolingual children in Saudi Arabia (N=3) and bilingual children in New Zealand (N=3), who were originally from Hijaz in Saudi Arabia (Medina, Mecca, and Jeddah). Overall, the children responded well to the Hijaz dialect of MAIN when piloting. Additionally, we tested the MAIN version on a few children who spoke Yemeni Arabic, and the experiment was successful. The tester could understand the children, and they followed the prompts, responded to comprehension questions, and correctly completed the narrative tasks. However, a version of the Yemeni-dialect MAIN must be created in its final form and piloted prior to its deployment.

Regarding the questionnaire, some parents had difficulties filling it out because the researchers and parents used different versions of Microsoft Word, and some words were altered when the questionnaire was moved between the different versions of the program.

Therefore, an online questionnaire should be created to make it easier for parents to complete the questionnaire. Additionally, the questionnaire used is lengthy and some questions are inappropriate for monolinguals (e.g. for example, Is your child exposed to an L2? Which language does your child speak best?). With this in mind, the Alqahtani has designed an online monolingual questionnaire in which some questions in the original questionnaire have been modified.

7 Conclusion

MAIN is crucial in enhancing studies regarding Saudi children's development of language by offering a thorough and culturally attuned tool for evaluating narrative abilities. MAIN's pictorial design enhances narrative generation and understanding, irrespective of children's literacy levels, rendering it especially effective for evaluating oral narrative skills in linguistically diverse and diglossic contexts, notably within Arabic-speaking communities (Mahamid & Saiegh-Haddad, 2025). A bright prospect for the future implementation of MAIN in Saudi Arabia is its capacity to distinguish between normative language development and language deficits. Research employing MAIN has effectively demonstrated differences in storytelling macrostructure between children with usual language development and those with development language impairments (Kraljević et al., 2020). By modifying MAIN to consider the linguistic subtleties of Saudi Arabic – particularly the difficulties arising from the coexistence of regional dialects and Modern Standard Arabic – it would be feasible to create effective diagnostic instruments that guide early intervention initiatives in educational and clinical contexts. Moreover, MAIN's established adaptability in cross-linguistic environments, evidenced by its modification for languages like Urdu (Hamdani et al., 2020), indicates that analogous strategies are utilized to maintain its cultural and linguistic significance in the Saudi context. The adaptation process entails alterations to the narrative prompts, evaluation criteria, and normative standards to reflect the distinctive characteristics of Saudi narrative traditions and the impact of Arabic diglossia on narrative coherence and complexity. Thus, MAIN may function as both a research tool to enhance our theoretical comprehension of narrative development and a practical resource to inform language intervention and curriculum design in Saudi educational institutions.

In conclusion, the prospective application of MAIN in the examination of Saudi children's language presents potential in three principal domains. Initially, it serves as a diagnostic tool to detect language deficits by analyzing story macrostructure and microstructure. Secondly, its adaption to the Saudi Arabic setting may yield insights into the influence of diglossia on storytelling competencies. Third, by producing longitudinal data on narrative competency, MAIN can guide specific educational initiatives and governmental decisions designed to enhance language development in Saudi Arabia. These diverse uses establish MAIN as an essential asset in the continuous endeavour to improve language assessment and support for Saudi youngsters.

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