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English language and literacy proficiency of students in an urban Fiji primary school

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English language and literacy proficiency of students in an urban Fiji primary school

Abstract

Fiji is a multicultural and multilingual community and English is one language taught in Fiji schools. This study aimed to describe the English language proficiency of Fiji primary school students. Direct assessment measures of 75 students' English language (listening and speaking) and literacy (reading and writing) skills were obtained (Year 1: $n=35$; Year 4: $n=40$). These were examined in relation to students' academic performance and main language spoken at home. English home language status was correlated with better English language proficiency and academic performance for students in Year 1, but not for students in Year 4. Instead, use of Fiji Hindi at home in Year 4 was related to higher proficiency on English language tasks than for Standard Fijian speakers. The importance of obtaining information about home languages in culturally and linguistically diverse contexts is emphasised. The findings of this study have implications for assessing the English proficiency of linguistically multi-competent children learning in immersion education settings.

Key words: communication, proficiency, subjective report, direct assessment, Fiji, school-aged

English language and literacy proficiency of students in an urban Fiji primary school

Fiji is a group of islands located in the South Pacific Ocean. Fijians are of indigenous (iTaukei Fijian) and immigrant heritage (e.g., Indian, Rotuman, Chinese, European, Polynesian). Fiji has three official languages: iTaukei (hereafter referred to as Standard Fijian), Fiji Hindi and English (Fijian Government, 2013). Standard Fijian English is the primary language of education, commerce and government (Mangubhai & Mugler, 2006). Fijian English is spoken by almost all Fijians alongside the dominant indigenous, exogenous and immigrant languages (Simons & Fennig, 2017).

In Fiji, English proficiency is essential for academic performance, university entrance, and personal advancement as well as for national socioeconomic development (Maharaj, 2016). Due to the diversity of languages in Fiji, and the recognised importance of students learning in their home language (Fijian Government Ministry for Education, FGMfE, 2007), a system of transitional bilingual education is promoted where the language of classroom instruction in Years 1 to 3 is a community language (usually either Standard Fijian or Fiji Hindi) and English is taught as a second language subject. In Year 4 the system reverses and English becomes the language of instruction and the community languages are taught as second language subjects (Geraghty, 2017; Mangubhai & Mugler, 2006). Implementation of this transitional bilingual education policy is reportedly more frequent in rural than urban areas due to the greater linguistic diversity present in urban schools. In urban schools, teachers often use English as the medium of instruction from Year 1 (Hopf, McLeod, & McDonagh, 2017a, 2017b; Mangubhai, 2002).

Proficiency in the language of school instruction is recognised internationally as a correlate of future academic performance (Admiraal, Westhoff, & de Bot, 2006; Levin & Shohamy, 2012; O'Connor et al., 2018; Prevoo, Malda, Mesman & van Ijzendoorn, 2015). In

urban Fiji primary and high schools all academic assessments after Year 3 are conducted in English except for language-specific subjects (e.g., Standard Fijian, Standard Hindi). This assessment occurs via formative classroom-based assessments (CBAs) and periodic national testing. CBAs are developed by teachers within a given school and are designed to reflect the national curriculum learning requirements for any given stage of the students' education. Periodic national testing for Year 4, 6 and 8 primary school students involves administration of the Literacy and Numeracy Assessment (LANA). LANA is an English language assessment of students' literacy and numeracy skills. All assessments are designed to inform teaching and learning practices and provide feedback to students, caregivers, teachers, and policy makers (Fiji Ministry of Education, Science and Technology, 2008).

The potential role of English language proficiency is acknowledged in locally developed relational frameworks that explain variability in educational performance (Otsuka, 2006); however, to date there has not been study of the proposed link between English proficiency and educational performance. The current lack of study of the role of any language in academic performance of Fijian children is likely due to the complex linguistic environment, a lack of locally developed testing material, and the limited historical study of Fijian children's language proficiency. English language results to date include: (1) A 1977 survey of Fijian Year 6 students' English reading proficiency that found over 25% of students were "unable to read simple English prose with understanding" (Elley & Mangubhai, 1979 cited in Mangubhai & Elley, 2006, p. 19); (2) A late 1990s survey of 48 primary school students who had Fiji Hindi as their first language that revealed consistent student- and teacher-reports of high to very high spoken and written English language comprehension and expression proficiency that increased with the number of years in formal schooling (Shameem, 2002); and (3) A 2015/16 caregiver- and teacher-survey of English language proficiency for 75 primary school students that found caregivers reported 78% of the 75

students communicated in English “somewhat well” (43.8%) or “very well” (34.2%), whilst teachers reported that 100% of the same students spoke English “somewhat well”(28.0%) or “very well” (72.0%) (Hopf et al., 2017a). A recognised major limitation of all of these surveys was the lack of any simultaneous English or other language testing.

Historically, Fiji studies of educational performance have been correlated with a multitude of societal factors (e.g., race, gender, class, economic, political, cultural and historical factors) (for reviews see Otsuka, 2006 and Puamau, 1999). Older Fijian students’ English language use and academic outcomes have been found to be influenced by: cultural factors (Hoar, 2004), attitudes (Hundt, Zipp, & Huber, 2015; Shameem, 2004; White, 2002) and access to literacy materials (Mangubhai & Elley, 2006). Fiji findings are consistent with international studies that recognise that children’s language use and proficiency and/or academic performance may be influenced by personal factors (e.g., ethnicity and main language status) and social factors (e.g., maternal education level - Hoff, 2003; Howard, Páez, August, Barr, Kenyon, & Malabonga, 2014; crowded homes with less verbally responsive parents - Evans, Maxwell, & Hart, 1999; and negative-intrusive parenting style - Pungello, Iruka, Dotterer, Mills-Koonce, & Reznick, 2009). Understanding the factors that influence Fijian primary school students’ English language proficiency will allow policy makers and educators to develop practices to support those children in the community who are most at risk of having poor academic performance.

This study contributes to the limited literature about Fijian school children’s English proficiency and provides new insights about the interactions between English language proficiency, academic performance, and social demographics through the following aims:

1. To describe the English language (listening and speaking) and literacy (reading and writing) proficiency of Fijian primary school students.

2. To determine if English language and literacy proficiency is correlated with academic performance.
3. To determine if English language and literacy proficiency and academic performance are correlated with main language spoken at home.

Method

Ethical approval was obtained from the Fiji Ministry of Education, National Heritage, Culture and Arts (MoENHCA, RA 29/14) and the Charles Sturt University human ethics committee (2014/153). Prior to the commencement of data collection community assent was sought via *talanoa* (community meetings) with key stakeholders including students, teachers, and caregivers.

Participants

There were 75 student and 75 caregiver participants. Demographics of the student participants in each year are provided in Table 1. There were more males than females in both school year levels. The Year 1 students were between 63 and 87 months of age ($M=71.8$, $SD=4.1$) and the Year 4 students between 108 and 125 months of age ($M=115.28$, $SD=4.3$). The majority of students had Standard Fijian as their main language. A small number of students had a different Fijian dialect, Fiji Hindi, or English as their main language. The majority of students could speak three or more languages. All students had exposure to English within the community prior to attending school.

The relationship of caregiver to student was as mother ($n=51$, 68.0%), father ($n=18$, 24.0%), aunt/uncle ($n=3$, 4.0%), grandparent ($n=2$, 2.7%), or unreported ($n=1$, 1.3%). Caregivers were predominantly aged between 30 and 49 ($n=61$, 81.3%), with smaller numbers aged below 29 ($n=10$, 13.3%), or over 50 ($n=4$, 5.3%). The majority of caregiver reported annual household incomes were below the FJD23,036 expected average household income for urban households (Table 1) (HIES, Fiji Bureau of Statistics, 2016).

[Insert Table 1 near here]

Instruments

Where possible multiple measures were administered to corroborate findings; however, the measures available for this study do not assess all aspects of language and literacy proficiency.

Caregiver questionnaire.

A researcher-developed paper-based caregiver questionnaire was informed by previous research exploring language and/or literacy skills of Fijian children (e.g., Mugler & Tent, 1998; Shameem, 2002; White, 2002) and multilingual children elsewhere in the world (e.g., McLeod et al., 2017; Paradis, Emmerzael & Sorenson Duncan, 2010). The questionnaire was offered in Standard Fijian, Hindi, or English; however, all participants chose to complete the questionnaire in English. The 10-page caregiver questionnaire contained 68 questions and requested information about student demographics (age, gender), language use (main and total number of languages), and socioeconomic status (total household income, total household occupants, mothers' and fathers' education level). A copy of the English version of caregiver questionnaire is available from the first author.

Direct assessment measures of language and literacy.

Direct assessment of English language and literacy was undertaken. For listening and speaking more than one measure was required to ensure a reasonable assessment of sub-skills within each communication domain. Seven direct assessments were administered for listening, speaking, reading and writing as follows:

Listening was assessed with three instruments:

- The Peabody Picture Vocabulary Test, Fourth Edition (PPVT-IV, Dunn & Dunn, 2007) Form A: a 228 item measure of receptive vocabulary for individuals age 2;6 through 90+ years.

- The Clinical Evaluation of Language Fundamentals, Fourth Edition, Australian Standardised Edition (CELF-4; Semel, Wiig, & Secord, 2006) is designed to test for language disorder or delay in people aged 5 through 21 years. Two measures of receptive language syntax and morphology from the CELF-4 were administered: Concepts and Following Directions (CELF-4 C&FD; 54 items) and Sentence structure (CELF-4 SS; 26 items).

Speaking was assessed with three subtests of the CELF-4:

- Word Structure (CELF-4 WS): a 32-item measure of expressive morphology.
- Recalling sentences (CELF-4 RS; 32 items) and Formulated sentences (CELF-4 FS; 28 items): both measures of expressive syntax and morphology.

Reading was assessed using the Dynamic Indicators of Basic Early Literacy Skills, Next edition (DIBELS Next: Good, Kaminski, & Dynamic Measurement Group Inc., 2011), a measure of early literacy and reading skills for students from Kindergarten through to Year 6. The year 1 students were assessed with three subtests of the DIBELS Next: Letter Naming Fluency, Phoneme Segmentation Fluency, and Nonsense Word Fluency. The year 4 students were assessed with two subtests: DIBELS Next Oral Reading Fluency and DIBELS Next DAZE. A DIBELS Next composite score was calculated for each student based on the procedures outlined in the Examiners' Manual.

Writing samples for Year 1 and 4 were assessed according to the complexity of the text. Year 1 writing samples (attempted name writing) were analysed using the six levels described within Lanter, Watson, Erickson, and Freeman (2012). Year 4 writing samples (descriptive paragraph) were analysed using the 12 levels described in the Early Writing Analysis Tool (EWAT: Mackenzie, Scull, & Munsie, 2013).

Classroom-based measures of academic performance.

The Year 1 classroom-based assessment (CBA) measure was comprised of two

school-developed, paper-based, whole-group administered, teacher-scored assessments in English. The Year 1 students had to apply the alphabetic principle and phonological awareness skills in their written English responses on the assessments. Collation by the class teacher of results for the two assessments resulted in an English language, literacy and communication score out of 50 for each student that was reported on the students' end of term 1 report.

Two measures of academic performance for Year 4 were used: a CBA English assessment and the National Literacy and Numeracy Assessment (LANA). The Year 4 CBA consisted of the combined results of two school-developed, paper-based, whole-group administered, teacher-scored assessments in English. The Year 4 CBAs evaluated the students' inductive reasoning, reading comprehension, and knowledge of English vocabulary and grammar principles. A total CBA English score out of 100 was reported on the students' end of term 3 report. The LANA, administered as a whole class activity in term 2 of the school year, consisted of two sections: one for literacy and one for numeracy. In 2014 the LANA assessed 55 learning outcomes of increasing difficulty in the literacy and numeracy achievement sections. Individual student data was compared to 2014 national (LANA-Literacy: $M=33$; LANA-Numeracy: $M=7$) and school (LANA-Literacy: $M=41$; LANA-Numeracy: $M=9$) averages.

Procedure

MoENHCA representatives selected the urban primary school in the western region of Fiji's main island, Viti Levu and the two classrooms: Year 1 ($n=36$) and Year 4 class ($n=41$). Caregiver consent and student assent were obtained for 35 Year 1 students and 40 Year 4 students (response rate=97.2% and 97.5% respectively). Consent was also obtained from the two classroom teachers to participate. This Fiji school operated three school terms from January to December each year. Questionnaire, direct assessment, and academic performance

measures were collected for Year 4 in school term 3 (October to December) in one year, and for Year 1 in school term 1 (January to April) of the following year.

Caregiver questionnaire.

Distribution of the caregiver questionnaire occurred at the beginning of each classroom study period via the class teacher. The students' caregivers completed the questionnaire at home, during one-on-one interviews ($n=21$, 28%), or during an after-hours information session where they could receive support to complete the questionnaire. All questionnaires were returned to the primary author by the end of the school term in which the study took place.

Direct assessment measures of language and literacy

The primary author individually administered the PPVT-IV, CELF-4, DIBELS Next, and the Year 1 writing task. All primary author-administered direct assessments occurred in a multi-purpose room at the school during school hours. Background noise levels in the room were variable dependent on time of day and external activities. The total individual assessment time was approximately 1.5 hrs spread across two to five assessment sessions. The number of assessment sessions was dependent on child behaviour and environmental factors (e.g., unexpected school interruptions). All administered direct assessments are well-established measures with sound psychometric properties that have been used with multilingual populations elsewhere in the world. All assessments were administered in accordance with the standard guidelines in their respective manuals. Only raw scores were calculated as normative data was not available for Fiji. The Year 4 writing assessment was conducted as part of the Year 4 end of term 3 English CBA. This task was administered by the Year 4 teacher as a whole class activity under school test conditions (e.g., no talking).

Academic performance measures.

Students' end of term school reports were used to provide the CBA scores. The Year 1 CBA ($n=35$) was retrieved for each student from the English Language, Literacy and Communication section of the Year 1 term 1, 2015 school report. The Year 4 CBA ($n=40$) was retrieved for each student from the English section of the Year 4 term 3, 2014 school report. Year 4 LANA-Literacy ($n=38$) and LANA-Numeracy ($n=38$) scores were provided by the school administration team, after retrieval from the online national database, at the conclusion of the year 4 data collection period.

Analysis

Statistical analysis followed the example of international studies (e.g., Ebert & Pham, 2017; Dixon, Zhao, Quiroz, & Shin, 2012) where direct assessment raw scores were deemed appropriate for statistical analysis as the study population were not part of the normative sample for the described assessment measures. In the case of the current study raw scores, as well as the students' age, were used to examine the relationships within the sample and to account for any developmental differences. Statistical analysis was conducted using SPSS® Statistics version 23.0 (IBM®, 2015). Descriptive statistics were used to describe results on each measure (aim 1). Non-parametric analyses were used to account for non-normality in our data to produce more accurate estimates. Partial correlational analysis controlling for age was used to determine the association between nominal language proficiency measures, demographics and language use data (aims 2 & 3). Kruskal-Wallis Tests were used to compare the scores on continuous measures (e.g., assessment measures, academic performance). When significant differences were found between groups using the Kruskal-Wallis analyses, post-hoc analyses with Mann-Whitney U-Tests and a Bonferroni correction of the p -value were undertaken ($0.05/\text{number of post-hoc tests}$).

Results

Year 1 and Year 4 English proficiency results across the four domains of communication (listening, speaking, reading, and writing) for all subtests are presented followed by correlational analysis of these results with students' demographics.

Language and Literacy Outcomes

Descriptive statistics of Year 1 and Year 4 students' language and literacy outcomes on listening, speaking, reading, and writing are presented in Table 2.

[Insert Table 2 near here]

Direct Assessment Correlations with Academic Performance

Table 3 contains the results of the partial correlation, controlling for age, of direct assessment measures across all communication domains (listening, speaking, reading, writing) with academic performance results for Year 1 (CBA) and Year 4 (CBA; LANA-Literacy, LANA-Numeracy).

Year 1.

Year 1 CBA scores ranged from 38 to 50 ($M=46.2$, $Median=47.0$, $SD=3.2$). There were moderate to strong correlations between the Year 1 CBA results and all direct assessment measures (Table 3). Higher scores on the Year 1 CBA results were associated with significantly higher scores on all direct assessment measures.

Year 4.

Year 4 CBA results ranged from 52 to 98 ($M=81.7$, $Median=83.5$, $SD=11.3$). Year 4 LANA-Literacy achievement scores ($M=37.3$, $Median=44.0$, $SD=17.4$) and LANA-Numeracy achievement scores ($M=15.2$, $Median=9.0$, $SD=12.7$) were above averages obtained for the nation (LANA-Literacy: $M=33$; LANA-Numeracy: $M=7$) and school (LANA-Literacy: $M=41$; LANA-Numeracy: $M=9$).

The Year 4 CBA was not correlated with the CELF-4 C&FD and CELF-4 SS (both listening subtests); however, all other direct assessment measures had moderate to strong

correlations with the Year 4 CBA (Table 3). Moderate to strong correlations were found between the LANA-Literacy and all direct assessment measures except for the CELF-4 SS (Tables 3). The LANA-Numeracy was moderately correlated with the CELF-4 WS ($r=0.46$, $p=0.005$) and DIBELS Next ($r=0.40$, $n=38$, $p=0.014$) but not with any other direct assessment. In all cases where a correlation is indicated, higher scores on an academic performance result were correlated with significantly higher scores on the direct assessment measure.

[Insert Table 3 near here]

Direct Assessment and Academic Performance Correlations with Main Language Spoken at Home

Year 1.

Kruskal-Wallis tests compared students' main language spoken with Year 1 results on all direct assessment measures. Significant differences on speaking assessment measures, but not listening or literacy assessment measures, were found (Table 4). Post-hoc Mann-Whitney U tests with a Bonferroni adjusted p -value of 0.008 revealed that English main language speakers had significantly higher scores on all speaking assessment measures compared to Standard Fijian speakers. All other cross-language comparisons with assessment measures were not significant. When Year 1 students' main language was compared with the Year 1 CBA all language group comparisons were not significant.

Year 4.

Main language spoken was associated with PPVT-IV, CELF-4 C&FD, CELF-4 RS, DIBELS Next, and Year 4 writing direct assessment measures (Table 4). A Kruskal-Wallis Test indicated that Year 4 students' main language was associated with PPVT-IV results ($\chi^2(3, n=40)=7.80$, $p=0.50$); however, Mann-Whitney U Test post-hoc analysis with a Bonferroni adjusted p -value of 0.008 failed to reveal any significant cross-language

comparisons. A possible trend was noted with Year 4 main language speakers of Fiji Hindi and English having higher PPVT-IV scores than Standard Fijian speakers. For the CELF-4 C&FD there was a significant difference for main language speaking groups ($\chi^2(3, n=40)=12.98, p=0.005$): Fiji Hindi speakers ($n=10$) had significantly higher CELF-4 C&FD scores than Fijian dialect speakers ($n=8$). There was also a significant difference across language groups for the CELF-4 WS ($\chi^2(3, n=40)=16.33, p=0.001$): Standard Fijian speakers had significantly lower CELF-4 WS scores than speakers of Fiji Hindi or English. For the CELF-4 RS a significant Kruskal-Wallis Test ($\chi^2(3, n=40)=11.77, p=0.008$) revealed that Fiji Hindi speakers had significantly higher CELF-4 RS scores than Standard Fijian speakers. Finally, a significant EWAT writing score difference for main language groups ($\chi^2(3, n=40)=11.16, p=0.011$) revealed that Fiji Hindi speakers had significantly higher EWAT writing scores than Standard Fijian speakers. Main language spoken was not associated with CELF-4 FS, CELF-4 SS, or DIBELS Next measures.

Main language spoken at home was associated with results on two of the three Year 4 academic performance measures (Year 4 CBA: $\chi^2(3, n=40)=12.12, p=0.007$; LANA-Literacy: $\chi^2(3, n=38)=13.33, p=0.004$); LANA-Numeracy: $\chi^2(3, n=40)=7.46, p=0.059$). Fiji Hindi speakers had significantly higher scores than Standard Fijian speakers on the Year 4 CBA whilst Fiji Hindi speakers and Fijian dialect speakers had higher LANA-Literacy scores than Standard Fijian speakers.

[Insert Table 4 near here]

Discussion

Like many other countries in which English acts as a *lingua franca* and language of education, Fiji's linguistic landscape is evolving in response to local and international needs for multilingual speakers. Fijian school students require high levels of English language proficiency to succeed at school and members of the Fijian community have raised concerns

about English proficiency and the teaching of English in schools (Maharaj, 2016). Thus, it is important to regularly and systematically evaluate the English language and literacy proficiency of Fijian school students to ensure that standards meet the community's expectations. This study used data from multiple sources and informants. This reduced shared method variance and allowed for a more accurate understanding of the current levels of English language proficiency in two groups of urban Fijian primary school children. The findings may be used to inform future pedagogical decisions regarding English language use in the classroom for Fijian children from all language backgrounds. These Fiji findings may also have application to similar contexts where multilingual students are immersed in school settings where English is the language of instruction. Each of the aims of the current study will be discussed in turn.

Urban Fijian Students' English Language and Literacy Proficiency

In the current study, Year 1 students who do not speak English at home come to school with very little English knowledge. Mangubhai and Mugler (2006) suggested that the English knowledge of urban Fijian children may be better than their rural counterparts. Our results suggest that even if this is the case, most of the urban Year 1 students in this study are immersed into a foreign (English) language-learning environment on entering school. Thus, one may expect that they will require intensive English language support in order to access a curriculum that is being delivered predominantly in English.

This study has demonstrated that the Year 4 students appear to still have gaps in knowledge of their English whilst trying to meet academic performance objectives. The results support previous researchers' claims that most English language learners can learn basic interpersonal communication skills within three years, whilst it takes approximately five to seven years of instruction to achieve English cognitive academic language proficiency (Ardasheva, Tretter, & Kinny, 2012; Cummins, 2008; Thomas & Collier, 2002). The Fijian

students who achieved high direct assessment scores may be on their way to achieving that aim; however, this cannot be assumed (Thomas & Collier, 2002).

English Proficiency and Academic Performance

Correlation of the English proficiency direct assessment measures with academic performance results revealed moderate to strong correlations on all tasks for Year 1 and most tasks for Year 4. The Year 4 CBA and LANA-Literacy had moderate to strong correlations with speaking, reading and writing results. In contrast the LANA-Numeracy was only correlated with Year 4 results on the CELF-4 WS and the reading task (DIBELS Next). The CELF-4 WS was the one measure of morphology in the assessment battery. Sharma (2016) noted that development of mathematical literacy in Fijian children required strong linguistic and metalinguistic skills in English. It is possible that morphemes marking numerical concepts of quantity and tense were important to interpreting numerical word problems in the LANA-Numeracy test. On Year 4 listening assessment measures, the CELF-4 C&FD and CELF-4 SS were not correlated with the Year 4 CBA, and the CELF-4 SS was also not correlated with the LANA-Literacy. Both the CELF-4 C&FD and CELF-4 SS were listening assessment measures assessing receptive syntax. It seems unusual that receptive syntax would not be associated with written academic performance tasks. It may be that there was not sufficient syntactical complexity implicit in the academic performance tasks to differentiate student ability in this sub-skill.

English Proficiency, Academic Performance and Main Language Status

Large-scale studies elsewhere in the world have stressed the importance of maintenance of community languages for cognitive development (Hoff & Core, 2015; Winsler et al., 2014), academic and social skills (McLeod, Harrison, Whiteford, & Walker, 2016) and connection with community (Oh & Fuligni, 2010). Given the significant concern about indigenous language loss in Fiji (Goundar, 2016; Lotherington, 1998) and the

acknowledged benefits of multilingualism (Hoff & Core, 2015), Fijian caregivers' language choices need to be informed by sound research about the local context. In this study, the family's home language had a significant impact on English proficiency and academic performance (Table 4). In the Year 1 group, students whose main language was English were advantaged on all direct assessment measures of speaking compared to students whose main language was Standard Fijian but not compared to those whose main language was a different Fijian dialect or Fiji Hindi. This advantage of speaking English as a main language was not as apparent in the Year 4 group. Instead Year 4 English as main language speakers performed similarly to all English as additional language learners. This may suggest that by Year 4 additional language speakers of English in this Fiji classroom are potentially eliminating any proficiency advantage afforded to those children who enter school speaking English at home. This is consistent with international studies of young English language learners (McLeod et al., 2016; Thomas & Collier, 2002). Thus, foregoing one's community language in favour of English at home is not recommended because it appears to provide only short-term academic advantage. It is recommended that children speak their community language at home.

The picture of English language proficiency and academic performance of students who speak English as an additional language was different in Year 1 and Year 4. In Year 1, Standard Fijian, Fijian dialect and Fiji Hindi speakers had similar scores across all language and literacy assessment measures. In Year 4, Fiji Hindi speakers had higher scores on four of five direct language assessments compared to Standard Fijian speakers, and one direct assessment compared to Fijian dialect speakers. This is despite all language groups having similar socioeconomic backgrounds (total household income, mother/father education level). Given that the data presented is not longitudinal it is not possible to discern whether findings for the Year 1 and 4 groups are a trend or unique to each group. Differences in English proficiency may be linked with main language proficiency (Thomas & Collier, 2002). A

future longitudinal study that simultaneously evaluates main language and English proficiency is required.

Main language did not influence results on direct literacy assessment measures. It is possible that the phonological awareness tasks performed by the Year 1 students readily crossed main language boundaries. For Year 4 students it is possible that the calculation of a composite measure for the DIBELS Next may have reduced the sensitivity to main language differences evident on any single subtest. Validation of a literacy assessment tool for the Fiji context is required.

Nabuka (1984) asked the research community in Fiji whether a mismatch or match between home and school language influenced academic performance of younger children. Fujioka-Kern (1994) subsequently found that proficiency in home language literacy skill was associated with academic achievement for Fiji Hindi and Fijian language speaking high-school students. In this urban Fiji primary school, with students of mixed linguistic backgrounds, English proficiency was important to academic performance from Year 1. However, English as a first language status did not result in better academic performance for Year 4 students. Whilst English as a first language status does not suppose better English proficiency or academic performance in Year 4, some English as additional language students (i.e., those with Fiji Hindi as their first language) outperformed others (i.e., Standard Fijian and Fijian dialect speakers) on a number of language tests. The reasons for this require further investigation.

Limitations

This study presented English language proficiency data but did not present proficiency in the other languages spoken by the children. Our understanding of why some children have better English language proficiency than others would be enhanced by also knowing the students' proficiency in their other languages, particularly their main language spoken at

home.

The reported associations between main language group and English language proficiency must acknowledge that main language spoken at home was self-reported. It is unlikely that Fiji Hindi main language speakers would have identified themselves as Fijian dialect speakers, but the distinction between Standard Fijian and Fijian dialect main language speakers may have been less clear for some participants.

This study was cross-sectional and thus definitive claims cannot be made regarding English language proficiency progression between Year 1 and Year 4. We also acknowledge that the large number of variables and small numbers of participants, due to resource constraints, within some variable categories may have influenced statistical results. Consequently, we have used nonasymptomatic exact p -values with Bonferroni adjustment where required to strengthen our findings where possible. Additionally, the reliability and validity of the measures used has not been tested. Evaluation of the reliability and validity of subjective report and adapted direct assessment measures used in this study is warranted.

Future Directions

Future studies of children's language proficiency in Fiji and elsewhere can build on the findings reported here. Understanding why children who speak different main languages perform differently on English proficiency assessments will inform future planning of educational services in Fiji that meet the needs of all children. A longitudinal study that evaluates main language and English language proficiency amongst urban, rural and remote Fijian students is warranted to elucidate what other personal (e.g., number of languages spoken) or environmental (e.g., home-literacy environment, socioeconomic) factors may be creating the proficiency difference in English seen in the Year 4 group. If we understand these factors then it may be that we can promote parental practices and develop teaching methods that mediate their effects before high school.

Conclusion

Urban Fijian students come to school with very different individual linguistic profiles as indicated by the variability in Year 1 and Year 4 students' language and literacy proficiency, along with Year 4 students' higher proficiency compared to Year 1. It is apparent that these Fijian students, who are still learning to communicate in English up to and likely beyond Year 4, require ongoing intensive English language support to access an English-only curriculum, and thus should not be expected to perform similarly to children of the same age in countries where English is the dominant community language (e.g., Australia, New Zealand, United Kingdom, United States). Policy makers should develop curriculum materials that support learning in all community languages beyond Year 4 and allow teachers to differentiate their pedagogical practice to the variable needs of the diverse cultural and linguistic profiles of the students in their classrooms.

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Table 1.

Student Demographics by Year.

		Year 1 (<i>n</i> = 35)	Year 4 (<i>n</i> = 40)
Gender	Female	10 (28.6%)	17 (42.5%)
	Male	25 (71.4%)	23 (57.5%)
Age	Mean (months)	71.8 (<i>SD</i> =4.1)	115.28 (<i>SD</i> =4.3)
	Range (months)	63.0 - 87.0	108.0 - 125.0
Main language spoken at home	Standard Fijian	17 (48.6%)	15 (37.5%)
	Fijian dialect	4 (11.4%)	8 (20.0%)
	Fiji Hindi	5 (14.3%)	10 (25.0%)
	English	9 (25.7%)	7 (17.5%)
Number of languages spoken	1	3 (8.6%)	1 (2.6%)
	2	11 (31.4%)	6 (15.4%)
	3	16 (45.7%)	24 (61.5%)
	4 or more	5 (14.3%)	8 (20.6%)
Non-verbal intelligence (PTONI) ¹	Mean	26.8 (<i>SD</i> =7.5)	40.0 (<i>SD</i> =9.7)
	Range	7.0-42.0	25.0-60.0
Total household income ²	<FJD10,000	13 (37.1%)	11 (27.5%)
	FJD10,000 - FJD19,999	9 (25.7%)	15 (37.5%)
	>FJD20,000	3 (8.6%)	2 (5.0%)
	Undisclosed	10 (28.6%)	12 (30.0%)
Total household occupants	Mean	6.3 (<i>SD</i> =1.6)	6.0 (<i>SD</i> =1.8)
Fathers' education level ³	Primary or not at all	1 (3.2%)	1 (3.4%)
	High school	14 (45.2%)	15 (51.7%)
	Tertiary	16 (51.6%)	13 (44.8%)
Mothers' education level ³	Primary or not at all	0 (0.0%)	2 (6.7%)
	High school	15 (46.9%)	12 (40.0%)
	Tertiary	17 (53.1%)	16 (53.3%)

Note. ¹ Primary Test of Nonverbal Intelligence (PTONI; Ehrler & McGhee, 2008); ² FJD, Fiji dollar. 1 FJD=approximately 0.47 USD (Oct 2018); ³ Education level – “tertiary” education included studies completed at a technical college or university that resulted in a certificate level or greater qualification.

Table 2.

*Listening, Speaking, Reading, and Writing Direct Assessment Measure Results for Year 1**(n=35) and Year 4 (n=40) Students.*

Communication domain	Variable	Statistic	Year 1	Year 4
Listening	PPVT-IV ¹	<i>n</i>	35	40
		Mean	50.4	90.1
		(<i>SD</i>)	(14.5)	(18.0)
		Median	49.0	89.0
	CEL F-4 ² C&FD ³	Range	25.0-79.0	53.0-129.0
		<i>n</i>	35	40
		Mean	6.6	37.9
		(<i>SD</i>)	(4.4)	(8.2)
	CEL F-4 SS ⁴	Median	5.0	40.0
		Range	1.0-18.0	14.0-50.0
		<i>n</i>	35	14
		Mean	10.9	20.8
Speaking	CEL F-4 WS ⁵	(<i>SD</i>)	(3.4)	(3.0)
		Median	10.0	20.5
		Range	5.0-20.0	14.0-26.0
		<i>n</i>	35	40
	CEL F-4 RS ⁶	Mean	3.9	18.7
		(<i>SD</i>)	(3.7)	(6.1)
		Median	3.0	20.5
		Range	0.0-11.0	5.0-26.0
	CEL F-4 FS ⁷	<i>n</i>	35	40
		Mean	10.1	31.9
		(<i>SD</i>)	(8.3)	(10.8)
		Median	7.0	33.5
Reading	DIBELS Next	Range	0.0-35.0	10.0-62.0
		<i>n</i>	35	14
		Mean	3.9	31.6
		(<i>SD</i>)	(5.7)	(10.9)
Writing	Writing score ⁹	Median	1.0	33.0
		Range	0.0-19.0	11.0-47.0
		<i>n</i>	35	40
		Mean	14.2	183.7
Writing	Writing score ⁹	(<i>SD</i>)	(16.2)	(114.4)
		Median	7.0	166.0
		Range	0.0-59.0	8.0-399.0
		<i>n</i>	35	40
Writing	Writing score ⁹	Mean	4.3	9.2
		(<i>SD</i>)	(1.2)	(1.8)
		Median	5.0	9.0
		Range	1.0-5.0	6.0-12.0

Note. ¹ Peabody Picture Vocabulary Test, Fourth Edition (PPVT-IV, Dunn & Dunn, 2007); ² Clinical Evaluation of Language Fundamentals, Fourth Edition, Australian Standardised Edition (CEL F-4; Semel et al., 2006); ³ Concepts and Following Directions (CEL F-4 C&FD); ⁴ Word Structure (CEL F-4 WS); ⁵ Recalling Sentences (CEL F-4 RS); ⁶ Formulated Sentences (CEL F-4 FS); ⁷ Sentence Structure (CEL F-4 SS); ⁸ Dynamic Indicators of Basic Early Literacy Skills, Next edition (DIBELS Next; Good et al., 2011). ⁹ Year 1: Lanter et al., (2012). Year 4: Early Writing Analysis Tool (EWAT; Mackenzie et al., 2013).

Table 3.

Correlation between Listening, Speaking, Reading and Writing Direct Assessment Measures with Academic Performance Results for Year 1 (n=35) and Year 4 (n=40).

		CBA	CBA	LANA-Literacy	LANA-Numeracy
		Year 1	Year 4	Year 4	Year 4
Listening	PPVT-IV ¹	0.52**	0.60**	0.38*	0.21
	CELF-4 ²	0.41*	0.26	0.36*	0.25
	C&FD ³				
	CELF-4 SS ⁴	0.49**	0.37	0.42	0.50
Speaking	CELF-4 WS ⁵	0.47**	0.76**	0.72**	0.46**
	CELF-4 RS ⁶	0.43*	0.61**	0.44**	0.25
	CELF-4 FS ⁷	0.36*	0.66*	0.82**	0.32
Reading	DIBELS Next ⁸	0.55**	0.67**	0.82**	0.40*
Writing	Writing score ⁹	0.38*	0.51**	0.65**	0.32

Note. * $p < 0.05$. ** $p < 0.01$. ¹⁻⁹ See Table 2.

Table 4.

Influence of Main Language on Direct Assessment Measures and Academic Performance Results for Year 1 (n=35) and year 4 (n=40).

		Student's main language	
		Year 1	Year 4
Listening	PPVT-IV ¹	6.11	7.80*
	CELF-4 ² C&FD ³	4.88	12.98**
	CELF-4 SS ⁴	5.99	2.12
Speaking	CELF-4 WS ⁵	10.87*	16.33**
	CELF-4 RS ⁶	10.55*	11.77**
	CELF-4 FS ⁷	10.59*	1.17
Reading	DIBELS Next ⁸	3.37	5.97
Writing	Writing score ⁹	2.06	11.16
Academic performance measures	Year 1 CBA ¹⁰	7.43	--
	Year 4 CBA ¹⁰	--	12.12**
	LANA ¹¹ -Literacy	--	13.33**
	LANA ¹¹ -Numeracy	--	7.46

Note. * $p < 0.05$. ** $p < 0.01$. ¹⁻⁹ See Table 2. ¹⁰ Classroom based assessment (CBA); ¹¹ Fiji Ministry of Education National Literacy and Numeracy Assessment (LANA).