The feasibility of using an international common reading progression to measure reading across languages: a case study of the Vietnamese language

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Abstract. In the last few decades, student achievement in many countries has been assessed and reported against a developmental learning continuum which underpins the knowledge and skills being measured. There have been efforts to place students from different countries on the same scale. However, those efforts have often been limited to individual projects and countries. There has been no common framework and no common metric for assessments to be compared across countries and levels. Recently, the UNESCO Institute for Statistics (UIS) has worked with the Australian Council for Educational Research (ACER) to develop UIS reporting scales for reading and mathematics with the aim of enabling countries to examine and report using a common framework and common quality control. This paper presents the results of an evaluation of the feasibility of adapting and applying the UIS reporting framework to the reading of Vietnamese language.

1. General description of research questions, objectives and theoretical framework

1.1. Introduction
In the past few decades, there has been a tendency for countries to assess and report student achievement at a national level against developmental continua. There have also been international and regional efforts in assessing and reporting student achievement among many countries using a common framework, such as the Trends in International Mathematics and Science Study (TIMSS), the Progress in International Reading Literacy Study (PIRLS) and the Programme for International Student Assessment (PISA). However, there is a lack of a unified international framework across projects enabling countries to examine and report the outcomes of these assessment activities [1].

Without a common framework, it is difficult to compare and monitor student learning outcomes at international levels, and especially difficult for developing countries to compare their student learning outcomes with those of other countries, as learning progressions may not be used in those countries or, if they are used, the validity and reliability of the scales in use may be questionable.

Yet, the United Nations Education 2030 agenda reinforces the need to monitor students’ achievement in terms of proficiency levels at the end of educational cycles such as primary and lower secondary school [2]. With the aim of enabling countries to examine and report student outcomes using a common framework, the Australian Council for Educational Research (ACER) has been working with the UNESCO Institute for Statistics (UIS) to create common reporting scales for reading which can be
applied in many languages.

1.2. The reading framework
In the framework of the UIS reading scales [1], reading concepts and knowledge are grouped into two broad domains: comprehension skills and constrained skills. Comprehension skills are considered unconstrained in their development. This means that comprehension skills include a set of skills that continue to develop before, during, and after formal schooling. Comprehension has been conceptualised to includes three strands: retrieving, interpreting and reflecting. [1]

Constrained skills are the decoding skills required to understand the symbolic representation of a language as written text. As such, the decoding skills are required to convert written symbols into words in a particular language. These skills involve smaller numbers of discrete things to be learned (e.g. the letters of the alphabet) and they are usually mastered completely in a few years [3]. They are referred to as ‘constrained’ because they are constrained in scope and time of acquisition. Constrained skills are fundamental and need to be fully mastered in order to become a proficient reader [1]. Constrained skills can also be referred to as ‘pre-reading’ skills.

For each of strand of the UIS reading framework, ACER experts worked together to map out important milestones of the “underlying developmental progression from simple to complex skills applied to familiar then progressively more complex texts” [1].

1.3. Research questions
As the objective of the UIS reading scales is to develop empirically derived common reporting scales in mathematics and reading that will support governments to effectively measure and monitor learning outcomes, there is a need to evaluate the extent to which the scales are compatible with teaching curriculum and assessments from a range of countries. This paper presents the evaluation of the extent to which it is feasible to translate or adapt the UIS learning and reporting framework for use with the Vietnamese language. The questions addressed by this paper are:

- To what extent does the UIS reading scale align with the Vietnamese curriculum?
- To what extent can the UIS reading scale be used in the Vietnamese context?
- If necessary, how can the UIS Reading scale be adapted to the Vietnamese context?

2. Methodology
The method used to conduct the evaluation of the extent to which the UIS reading scale aligns with the Vietnamese curriculum was document analysis. Vietnamese language and literature curriculum from early childhood to year 12 [4] were analysed to establish the extent to which the UIS reading scale aligns with the Vietnamese curriculum and whether the milestones along the UIS reading scale are comparable with the milestones in the developmental stages of reading in Vietnamese.

3. Results
3.1. Alignment of the UIS reading scale with the Vietnamese curriculum
In Vietnam, the two subjects that are related to the UIS reading scale are ‘Vietnamese’ for Primary Education Grades 1 to 5, and ‘Phonetics and Literature’ for secondary Education Grades 6 to 12. Reading is one of the four language skills taught in these two subjects: reading, speaking, writing and listening. The extent to which reading is covered at each of the grade levels in the 2006 Vietnamese curriculum is presented in table 1.

Comparing the Vietnamese curriculum [4] and the UIS reading scale, the following are noted:

- The strands of the UIS reading scale are not clearly stated in the Vietnamese curriculum. The structure of the reading section of the curriculum of the two subjects ‘Vietnamese’ and ‘Phonetics and Literature’ does not completely align with the structure of the UIS reporting scale in reading: ‘Retrieving,’ ‘Interpreting’ and ‘Reflecting’ are placed in the section ‘Reading Skills’; Constrained skills such as ‘Decoding and concept of print’ and ‘Vocabulary’ are partly
Table 1. Vietnamese curriculum in reading [4].

| Skills                          | Grade | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---------------------------------|-------|---|---|---|---|---|---|---|---|---|----|----|----|
| Reading fluency                 |       |   |   |   |   |   |   |   |   |   |    |    |    |
| Reading aloud                   |       |   |   |   |   |   |   |   |   |   |    |    |    |
|                                 | Accurate reading |   |   |   |   |   |   |   |   | * | * | * | * |
|                                 | Emotionally expressive reading |   |   |   |   |   |   |   | * | * | * | * | * |
|                                 | Scanning and salience reading |   |   |   |   |   |   | * | * | * | * | * | * |
| Reading understanding          |       |   |   |   |   |   |   |   |   |   |    |    |    |
|                                 | Word and sentence meaning |   |   |   |   |   |   | * | * | * | * | * | * |
|                                 | Content of paragraphs and documents |   |   |   |   |   |   | * | * | * | * | * | * |
|                                 | Indirect meanings of words and implications of sentences |   |   |   |   |   |   | * | * | * | * | * | * |
|                                 | Authors’ ideas and emotions |   |   |   |   |   |   | * | * | * | * | * | * |
|                                 | Artistic values and ethical meanings of a story/novel/book |   |   |   |   |   |   | * | * | * | * | * | * |
|                                 | Meanings of documentation |   |   |   |   |   |   | * | * | * | * | * | * |
|                                 | Links between reading documentations and individual life and practice |   |   |   |   |   |   | * | * | * | * | * | * |
| Application of reading skills  |       |   |   |   |   |   |   |   |   |   |    |    |    |
|                                 | Rote Learning |   |   |   |   |   |   | * | * | * | * | * | * |
|                                 | Research of documentation |   |   |   |   |   |   | * | * | * | * | * | * |

placed in the section ‘Knowledge of Vietnamese language’ and partly placed in the section ‘Reading Skills.’ However, in general, the UIS reporting scale in reading is still applicable in the Vietnamese context.

- While there is not a clear progression continuum across the standards of Grades 1 to 12, the ‘Decoding and concept of print’ in the Vietnamese curriculum appears to have higher levels than level 7 of the UIS reading scale ‘Decoding and concept of print’ strand. It can be noted that, from Grade 4 to Grade 12, Vietnamese students continuously work to improve emotionally expressive reading skills.
- The speed of reading is one of the elements of the Vietnamese reading progression.
- There is a slight mismatch between the UIS reading scale and the Vietnamese curriculum in the ‘Reflecting’ and ‘Interpreting’ strands; the Vietnamese ‘Reflecting’ and ‘Interpreting’ strands focus heavily on moral and ethical implications;
- Reasoning levels are not a focus of Vietnamese reading;
- The scoring rules of the sample items drafted for ‘Reflecting’ and ‘Interpreting’ strands may
be a surprise to teachers and education officers in Vietnam as there are multiple correct options allowed. Students in Vietnam are likely to have been taught to think ‘the same way,’ and Vietnamese test developers and teachers would normally provide only one option as a correct answer. However, allowing multiple options can facilitate critical thinking and this approach is progressively being adopted in Vietnam as the country works with educators from other countries and encourages Vietnamese students to be critical and independent thinkers.

3.2. The extent to which the UIS reading scale can be used in the Vietnamese context

The Retrieving, Interpreting and Reflecting strands do not need adaptation. The level descriptions for these strands are appropriate in the Vietnamese context and can be directly translated into Vietnamese. The reading tasks can also be translated into Vietnamese. There is a minor point for revision in the Reflecting strand. The constrained skills, however, will need to be adapted due to the different features of Vietnamese in comparison to English.

3.3. Recommendations for further work for adaptation of the UIS reading scale to the Vietnamese context

The steps needed for adapting the UIS constrained skills into the Vietnamese context are:

- Step 1 Translation from English to Vietnamese
- Step 2 Workshop/focus group interviews with Vietnamese subject matter experts on selection of words for each level
- Step 3 Revision
- Step 4 Back-translation into English
- Step 5 Comparison of translation from step 4 with original English version and final revision if necessary.

The purpose of the workshops in Step 2 is to elicit the following:

- Are the descriptions of the levels of each of the elements of the constrained strand relevant for the Vietnamese context? Is there a need for modification? If so, what modifications are needed? (This exercise to be repeated with each of the elements to describe the continuum for all elements of the Constrained strand.)
- Are the elements in each level of the Constrained strand appropriate for that level?
- For each of the Constrained strand levels, what is the corresponding level in the Vietnamese standards?

4. Discussion

The study demonstrates, first, that it is feasible to apply the UIS reading scale in the Vietnamese language context, and, second, that the process of evaluating the feasibility of applying the UIS reporting scales in general can be applied to other languages and other disciplines such as mathematics and science. While rigorous document analysis and expert consultation are important for ensuring the validity and reliability of the conclusions drawn from the feasibility study, there is a need to develop international common items and Vietnam-specific items along the reading scale, and empirical data should be collected and analysed for this purpose. Re-interpretation of the reading scale, based on the location of items along the continuum, should be conducted [5,15]. The same process and data collection should be conducted for all other languages if the countries where they are spoken want to adapt and use the UIS reporting scale. Comparison between the empirically derived scales from country data and the UIS reading scale would lead to a solidly validated UIS reporting scale in reading. There may be variation in constrained skills due to the uniqueness of languages. The extent to which constrained skills in other languages differ from those of English can be established. The Rasch model will play an important role in this process of validation [6] to compare item location on a scale and compare interpretations of an underlying continuum derived from data gathered from different languages.

The validated UIS reporting scales can facilitate international collaborations in teaching and assessment of reading skills. They potentially can also enhance the intercultural capability of students
through exchange of reading materials and test items. Education in foreign languages will also benefit from the initiatives in the development of such a common framework in reading. For countries where competency-based education is being promoted and adopted, the common UIS framework in reading is a good starting point to inspire teachers to work collaboratively to elaborate progressions in the context of the grades that they teach. In this way, the UIS framework can enhance classroom assessment and not be limited to use in large scale surveys of student achievement and cross-country comparison.

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