

Suitability of the Literacy and Numeracy Screening (Linus) 2.0 Programme in Assessing Children's Early Literacy

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ABSTRACT

Early literacy skills are crucial in a child's learning process and awareness should be raised in order to ensure the quality of early literacy assessments. In this paper, the writers discuss the quality of early literacy assessment in Malaysia, LINUS 2.0 by looking at its validity and reliability. An established early literacy program is compared with LINUS 2.0 in order to opt for the strengths to be implied into LINUS 2.0. By using all these information, a suggestion of improving LINUS 2.0 is given, which is by integrating the program assessment with the Common European Framework of Reference (CEFR) for assessing English language literacy. It was concluded that more studies and research should be done on early literacy assessment in Malaysia so that more suggestions and ideas could be gathered in order to refine the quality of early literacy skills assessment.

Keywords: *Early Literacy, Early Literacy Skills, Early Literacy Assessments, LINUS, LINUS 2.0, ELP, CEFR*

INTRODUCTION

Early literacy skills are crucial for children as these skills can help the learning progress of children in future. Children who are left behind in acquiring early literacy skills tend to struggle with reading and writing. As a result, these children tend to receive less practice in reading and less exposure to content knowledge, vocabulary and other language skills than do children who learn to read early and well (Echols, West, Stanovich, & Zehr, 1996; Cunningham & Stanovich, 1998; Lonigan, Allan, & Lerner, 2012; Morrisin, Smith, & Dow-Ehrensberger, 1995). In Malaysia, the mastery of early literacy skills has been a focus since the early years of the Malaysian education system and this issue was especially critical in the 1960s (Nazariyah & Abdul Rahman, 2013). Many programs have been implemented yet illiteracy among youngsters is still a real problem. In 2011, the Defence Minister of Malaysia, Abdul Latiff Ahmad, revealed that nearly 1,000 out of the 11,000 youths chosen for national service training (PLKN) were illiterate (Special Module for National Service Trainees: Malaysia, 2011). Besides, it was reported in The Star newspaper that 3 students were barred from taking their Primary School Assessment Test (UPSR), due to their weak academic performance (Action to be taken against school for barring trio from exam, 2011). All these issues have led to the conclusion that a better program needs to be executed so that all the children in Malaysia have a stable foundation in early literacy skills. Hence, the Ministry of Education (MOE) has introduced the Literacy and Numeracy Screening 2.0 (LINUS 2.0) program. According to this program, pupils should master the basic skills after three years

of their primary education (Nazariyah & Abdul Rahman, 2013; Zinitulniza, 2011).

As the LINUS 2.0 program is designed to ensure the groundwork of children's literacy skills, it is important for us to examine whether the materials used in this program are valid and reliable; particularly the assessing instrument. If an assessing instrument is not evaluating the main purpose of a course or program, the whole program or course is useless and not valid. This is what led to the writing of this paper where we would examine the validity and reliability in the program of LINUS 2.0. The results that we attained from examining the process would guide us in improving the LINUS 2.0 program, by looking for ways to eliminate its shortcomings. To make it more specific, readers are expected to get the following information in this writing:

1. An analysis of LINUS 2.0 program from the qualities of early literacy assessment by Johnston and Rogers¹ (2003).
2. A brief comparison between the LINUS 2.0 program with the Early Literacy Project (ELP) in India.
3. An integration of CEFR and LINUS 2.0 program, focusing on English language literacy.

Early Literacy Project is an established early literacy program conducted by numerous recognized organizations in India. We are not aiming to find the weaknesses of LINUS 2.0 by comparing the program with ELP, but to pick out the strengths in ELP to be applied into the LINUS 2.0 program. We hope that the strength points from ELP could help the Malaysian Education Ministry in improving the LINUS 2.0 program (henceforth LINUS 2.0).

We propose a suggestion in order to heighten the quality of the LINUS 2.0 program where we are integrating and adapting CEFR into the LINUS 2.0 English language literacy program. However, this is just a proposal; no pilot test or project has been done to prove its effectiveness. The proposal is made based on our readings in early literacy assessment and it is aimed at enhancing the validity and reliability of LINUS 2.0.

We hope that the information gained from our readings could help the Malaysian Ministry of Education, Malaysian primary school teachers as well as administrators to have a clearer view of the program. In addition, we also aimed at providing ideas and suggestions to the Ministry in order to enhance LINUS 2.0.

¹ *Johnston & Rogers' qualities of early literacy assessment are chosen by us in analyzing the validity and reliability of LINUS 2.0 program. Peter H. Johnston and Rebecca Rogers are experienced writers in the field of early literacy studies. Johnston is a professor at the State University of New York in Albany and his field of specialization is reading; whereas Rogers who is currently an educational researcher in the University of Missouri-St. Louis, specializes in literacy studies, teacher training and critical discourse studies. In this paper, we adopt the qualities of early literacy assessment from their writing titled "Early Literacy Development: The Case for 'Informed Assessment'".*

Qualities of Early Literacy Assessments and Linus 2.0

The most traditional and accurate way to assess an Early Literacy Program is by looking at its validity and reliability, as these are the two primary dimensions of quality in conducting an evaluation. In general, validity refers to whether the test is actually measuring what it claims to measure; whereas reliability refers to the consistency and accuracy of the measurement (Samad, 2010). However, in early literacy assessment, the criteria of validity and reliability are different from the normal assessment. These criteria will be discussed in the following sections and we will also review the validity and reliability of LINUS 2.0 English literacy assessment according to the criteria. The criteria of validity and reliability being discussed in this paper are given by Peter H. Johnston and Rebecca Rogers (2003).

Validity & LINUS 2.0

In the case of assessing early literacy, the criteria of validity have undergone some alterations. An upright early literacy assessment must fulfil two criteria in order to be valid in evaluating a child's performance. Messick (1995) mentioned in his research, respectively, that the consequences of the use and interpretation of an early literacy assessment has come to be integral to judgments of validity; which means the usage and the outcome of the assessment results are the ones that adjudicate the validity of an early literacy assessment. The results of the assessment must not bring any negative impact on the child as the core of an early literacy program is to build up a child's ability in learning. If the results are negative, it will affect the child's confidence and motivation in learning and the child might end up struggling with reading and writing skills. Hence, the dictum "first do not harm" has been centralized in the construct meaning that unless the assessment practice improves the quality of the child's literacy learning, it should not occur (Johnston & Rogers, 2003). In other words, the first criterion of validity in early literacy assessment is that the assessment practice and result must improve the quality of the child's literacy learning; if it does not fulfil this, the assessment and practice should not be created.

As mentioned, we will now examine the objectives of LINUS 2.0 with the first criterion of validity in early literacy assessment – the assessment practice must improve the child's literacy learning. The main focus of LINUS 2.0, like other early literacy programs, is to ensure the students master the literacy and numeracy skills (Education NKRA, 2010). The Curriculum Development Division Deputy Director (Humanities) of the Ministry of Education, Shamsuri Sujak said the aim of LINUS 2.0 was to ensure all pupils, except special needs students, master Bahasa Malaysia (the official language in Malaysia) literacy, English literacy and numeracy at the end of primary year three (eight to nine years old).

Please note that LINUS 2.0 supports the previous early literacy program, LINUS, implemented by the Ministry of Education in 2012. The difference between these two programs is that the Ministry included mastery of English literacy in LINUS 2.0. Pupils will be screened twice a year (March and September) to identify their progress in literacy learning. If a pupil is identified as lagging behind the targeted level, the pupil will have to undergo remedial classes where teachers will focus more on the literacy acquisition skills. The remedial class pupils will be placed in the mainstream curriculum once they are qualified and have achieved the suitable level of proficiency. The remedial classes are aimed at improving a child's literacy learning; in other words, LINUS 2.0 has fulfilled the first criteria of validity. We came out with this conclusion as the results from the LINUS 2.0 instrument are used to determine and to interpret the level of literacy learning progress of a child and most importantly a supplementary course will be provided to those who fall behind to improve their literacy learning.

The second criterion of a valid early literacy assessment is the alignment between pedagogical and assessment intentions and practice (Johnston & Rogers, 2003). The second criterion is actually inter-related with the first. Pedagogy means the instructions used by teachers involved in the early literacy program. The first criterion of validity in early literacy assessment states the importance of improving a child's literacy learning, which is rather problematic if traditional assessments are implemented in the setting of early literacy learning (Johnston, 1992; Stallman & Pearson, 1990). Thus, a documentary form of assessment should be used in the early literacy classroom. One example of documentary form of assessment is portfolio where it demonstrates students' progress, achievement and self-reflection in one or more areas (Paulson & Paulson, 1991; Swaran Singh & Abdul Samad, 2013). This on-going process of assessment involves a procedure which teachers use to plan, collect and analyze a collection of students' work (Swaran Singh & Abdul Samad, 2013).

This procedure of planning, collecting and analyzing helps teachers to determine children's achievement levels in literacy learning and at the same time it portrays the progress of the child's literacy learning. Therefore, the pedagogy used by teachers in the early literacy classroom should allow

them to analyze children's progress in literacy learning. With this, teachers involved in an early literacy program could monitor the teaching and learning process in a way aligned with the assessment intentions such that the practices used conform to the expected outcome (i.e., to develop a child's ability in learning). Besides teachers, the organizations or schools involved in early literacy programs need to have a clear view regarding the objectives of the assessment. It is vital for people in the organizations to know what they have to do and what they need to supply to teachers to achieve the early literacy program objectives. With co-operation between the teachers and organizations, it can be assured that the pedagogy used in the early literacy classroom is aligned with the program intentions and practices. In short, the second criterion of validity in early literacy assessment is focusing on the alliance between the implementation of the early literacy program with its expected outcomes and objectives.

Looking at the implementation of LINUS 2.0, a study has been done by Sani and Idris (2013) on the LINUS program implementation in the Malaysian education system. In the study, the researchers collected their data by using interviews, document analysis and observations from the subjects who were headmasters in Malaysian primary schools. Some headmasters stated that they understood the purpose of conducting LINUS in school, yet no additional courses or training was provided to them before the LINUS program started (Sani & Idris, 2013). Training is needed to enhance their understanding on the implementation of the LINUS program in schools. Without the required training, the headmasters carried out the LINUS program based on their discretion and creativity and this has influenced the achievement of LINUS program goals. The researchers are not focusing on the responsibility of weak achievement of LINUS in 2010, but rather, they are trying to emphasize program execution. Pedagogical knowledge should be given prior to LINUS program implementation. Fortunately, the ministry realized this shortcoming and has conducted courses and training for headmasters in 2011, which was quite effective.

Besides the authorities in school, teachers also play an important role in implementing the LINUS program in schools. The same researchers, Sani and Idris, conducted another study in the same year (2013) on the challenges encountered by teachers in executing the LINUS program in schools. Their findings show that lack of understanding of LINUS program among teachers is one of the major issues contributing to the program's lack of success. This displays another hindrance to the LINUS program where teachers in the early literacy classrooms have limited understanding of how to implement it, which led to the non-alignment between the pedagogical and assessment intentions and practice. The reason is that teachers have no way to decide what instruction to use in the early literacy classroom if they have limited understanding of the program objectives and purposes. Henceforth, the Ministry needs to put more effort into determining how LINUS 2.0 is implemented in schools. Once the teachers and schools have a clearer view on the ways to implement LINUS 2.0 in practice, the second criterion of validity in early literacy assessment might be fulfilled.

Reliability and LINUS 2.0

Reliability is also called generalizability across time, observers and so forth (Shavelson & Webb, 1991). In early literacy assessment, what is being generalized here is not the achievement of results by children but the interpretation that can be made from the results. Reliability in this sense is associated with generalizing a judgement over different judges, or over time or different circumstances (Johnston & Rogers, 2003). The idea of reliability is also about eliminating variables in an assessment in order to make interpretation of the assessment more consistent. However, this idea can only be applied to traditional assessment but not early literacy assessment which is a documentary assessment. In contrast, those variables that are said to influence the reliability in traditional assessment are considered useful in improving children's literacy learning. Johnston and Rogers (2003) in their paper mentioned that "literacy is seen more contextualized than it is portrayed in traditional tests, some variability in performance is expected across contexts, and such variability is viewed not simply as an

indicator of assessment errors but as an expected source of legitimate variability in performance". In other words, the variability occurring in early literacy assessment is not considered as "errors" but as "surprises" that will help children in their literacy learning. To explain further, the "surprises" found in interpreting the data from early literacy assessment will be used as tools in figuring out another better instruction to be used in teaching children. Reliability in early literacy assessment is not about whether or not an assessment will provide a consistent result, but whether the assessment can productively focus on our instruction (Johnston & Rogers, 2003).

LINUS was implemented in 2012 in Malaysia with a close to 100% performance for literacy and it did help the Ministry of Education to identify the problems faced by some weak students in their literacy learning. This was stated by Shamsuri Sujak, The Curriculum Development Division Deputy Director (Humanities) of the Ministry of Education in his interview with a local newspaper, *Berita Harian* (LINUS bantu kuasai asas literasi, numerasi, 2014). However, this does not mean that the program is reliable as in the same year (2014), the ministry amended the program to LINUS 2.0 and the result is yet to be known. LINUS 2.0 is a new literacy program introduced by the Ministry of Education Malaysia; hence its reliability still remains to be evaluated. Thus, it would be unfair for the writers to decide the reliability of LINUS 2.0 at the moment as it needs more time to show its efficacy, in order to be pronounced reliable.

To sum up, there is still some space for upgrading LINUS 2.0 implementation. In order to make this program valid in assessing early literacy, the Ministry of Education needs to do more research and obtain feedback from schools about the program execution. Knowing the ups and downs of the program would help to improve it and most importantly, to produce a new generation having learning ability in future. More time should be given to the program administration so that the Ministry will be able to gain more data or "surprises" that would help in discovering better instruction to be used in teaching literacy to Malaysian children. Consequently, in the following section, we compare the implementation approaches of LINUS 2.0 with a recognized early literacy program developed by UNESCO and its cooperative partners.

Early Literacy Project (ELP) and LINUS 2.0

In the previous section, we discussed some shortcomings in implementing LINUS 2.0 in Malaysia. In this section we recommend strategies to the Malaysian Ministry of Education in improving the LINUS 2.0 program; first we focus on the implementation approach used by ELP in conducting an established early literacy program. In India, the Organization for Early Literacy Promotion (OELP) has devised various strategies and methodologies in order to ensure the effective and sustainable implementation of the ELP. These include some key strategies:

- (1) The establishment of functional partnerships with other developmental institutions and local communities.
- (2) Production of culturally and contextually relevant teaching-learning materials.
- (3) Recruitment and training a cohort of community-based master trainers or facilitators.
- (4) Various teaching-learning approaches being utilized in the teaching and learning process.
- (5) Monitoring and Evaluation.

(UNESCO Institute for Lifelong Learning, Early Literacy Project, ©2009-2014)

For the first strategy, LINUS 2.0 program was implemented after the Malaysian Education system had done numerous studies on early literacy programs. We believe that the Ministry has consulted experts in early literacy before implementing the program. As for the second strategy, the

teaching-learning materials in LINUS 2.0 are constructed with relevance to students' culture and context. The first two strategies are the basic strategies in implementing a program and the Malaysian Education Ministry have done these before LINUS was run in schools.

Our focus is actually on the third strategy applied by OELP, where they distribute a resource pack for teachers involved in ELP. The pack includes (i) a teacher's teaching guide book; (ii) activity book; (iii) an evaluation book; (iv) CDs explaining teaching methods and giving suggestions for learning activities. This resource pack is very useful for teachers in order to help them to teach the students effectively and to ensure the teaching is aligned with the program purpose. The Malaysian Ministry of Education (MOE) can consider providing a resource pack to teachers in order to clear their current doubts in implementing LINUS 2.0. If providing resource pack to all LINUS teachers in Malaysia is too costly and demanding, the ministry can just provide a resource pack to the school and let the teachers share it. The OELP, as well, provides all the trainers who wanted to be involved in ELP teaching with induction and on-going in-service training and mentoring. This is one of the ways to ensure that teachers involved in the early literacy program are up to the requirements of being early literacy trainers or teachers. To apply this in Malaysia, instead of providing only one course or training to the LINUS 2.0 program teachers, the MOE might need to consider a yearly course or training in order to ensure the teachers are on the right track in the program. Besides, through the meeting of teachers and administrators in the training or course, the ministry will gain a lot of feedback on program successes and failures from those practically involved in it.

The main teaching approach being practiced in ELP is the Varna Samooha Approach, which is a structured, participatory and interactive child-centered teaching-learning methodology. Besides the traditional method of teaching-learning approach being used in the LINUS classroom, teachers might consider using group discussions, games and role-playing or simulations as well as question and answer sessions in the teaching-learning process.

As the final step, a crucial approach implemented in ELP is the monitoring and evaluation process. It is important to evaluate a program in order to figure out its effectiveness. The OELP will meet the ELP facilitators or trainers monthly to monitor their progress. As for the LINUS 2.0 program, the ministry can assign a representative to each District Education Office whose responsibility is to monitor the teaching progress of the LINUS 2.0 program teachers. Moreover, the OELP has designed a standardized questionnaire (checklist) to ensure the effective assessment of the learning outcomes and thus the learners' literacy skills. To apply this approach in the LINUS 2.0 program, the Ministry can ponder integration of the Common European Framework of Reference (CEFR) into the LINUS 2.0 program.

Integrating Cefr Into LINUS 2.0

The Common European Framework of Reference (CEFR) plays the most fundamental role in language education and policy worldwide. It details in a comprehensive way what language learners have to learn to do in order to apply a language for communication. Moreover, it has a budding significance for language testers and examination boards in order to help define language proficiency levels and construe language qualifications. For many language testers, it has become crucial to ensure that their examinations are aligned with the CEFR and with that, the Council of Europe has made effort to assist this by providing a toolkit of resources.

CEFR assesses learners by using the CEF Global Scale, whereby a learner is classified according to six levels of mastery from A1 to C2 and consists of "can do" proclamations that are stated in terms of listening, speaking, reading and writing. According to the research report done by Duibhir and Cummins (2012), adapting CEFR in an early literacy program provides a suitable structure upon which a language learning pathway could be mapped. Learners could see how they build up their language skills and this "structure map" establishes a solid foundation for them in learning third or fourth

languages later on (Duibhir & Cummins, 2012). Similarly, the main objective of LINUS is to ensure that after pupils completed lower primary they are able to achieve the basic literacy and numeracy skills, which at the same time safeguards their learning progress in future. Besides, LINUS 2.0 has an addition of training English language literacy skill, which is a skill both LINUS 2.0 assessment and CEFR assessment share. Hence, integrating both assessments will allow test setters to assess students' English language usage and literacy more effectively. Not only could the test setters assess the literacy among students, but the students could also be involved in the assessing process by doing self-assessment using the CEF Global Scale.

However, in integrating CEFR into LINUS 2.0, we are going to use the first three levels only, which are A1, A2 and B1. This is because the learners in LINUS 2.0 are developing literacy skills in using English language and they might progress at quite a slow pace. The DIALANG scales will be used when deciding the learners' levels where they provide learners with diagnostic information about their proficiency. DIALANG scales not only provide learners with their level of language of proficiency but also provide feedback on the strengths and weaknesses of their proficiency. With this feedback, learners will know how to improve their language skills; in other words, this scale is not about the ranking of level but it is about giving awareness to learners in improving their language proficiency. From another point of view, this characteristic of DIALANG scales has fulfilled one of the validity criteria in an early literacy assessment – where it should provide improvement in learners' literacy learning. Readers can look up the CEF Global Scales and DIALANG Scales on the internet for a more detailed view on the levels classifications and feedback.

Now, the question is: when to use CEF Global Scales and DIALANG Scales in the LINUS 2.0 English literacy program? In the third section, we have proposed an evaluation questionnaire as what OELP has applied in their early literacy program. Henceforth, the CEF Global Scales, focusing on three beginning levels (A1, A2 and B1) is used as a questionnaire before the learners attempt the English language literacy instrument provided by the Malaysian Ministry of Education. Do bear in mind that this scale is done by learners themselves but with the facilitation by teachers. Learners will do self-assessment using CEF Global Scales (the first three levels only) before attempting the LINUS 2.0 English instrument to determine their level. Once the learners' proficiency levels are confirmed, teachers can diagnose the learners' strengths and weaknesses by referring to the feedback given in the DIALANG Scales according to levels and skills. With the information gained from the CEF and DIALANG Scales, teachers could provide a better instruction to be used in improving learners' literacy learning; at the same time, this will enhance the reliability of the LINUS 2.0 program. Adapting both CEF and DIALANG scales into LINUS 2.0 program will help teachers as well as the Ministry of Education to improve the classroom instruction in English language literacy for Malaysian children.

CONCLUDING COMMENTS

The development of early reading skills is extremely important in the area of literacy. Early literacy skills have a clear and consistently strong relationship with later conventional literacy skills, such as decoding, oral reading, fluency, reading comprehension, writing and spelling (National Institute for Literacy, n.d.). Having a good foundation in literacy skills will benefit children's learning progress and will provide them with a better future. More and more studies and programs are being conducted worldwide to raise awareness of early literacy skills development. Henceforth, sound planning and strategies need to be considered while implementing early literacy assessment as the results of assessment are useful to be adopted in helping children's early literacy learning and providing vital information for educators in using the most effective instruction in the early literacy classroom. LINUS 2.0 is a vigorous program and it would bring significant results if executed as expected. More research should be conducted to provide valuable suggestions to improve the quality of the LINUS 2.0 early literacy program in Malaysia.

REFERENCES

- Action to be taken against school for barring trio from exam. (2014, October 30). Retrieved from <http://www.thestar.com.my/story/?sec=nation&file=%2F2011%2F9%2F21%2Fnation%2F9538733>
- Common European Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR). (2014, October 14). *Council of Europe*. Cambridge University Press. Retrieved from http://www.coe.int/t/dg4/linguistic/cadre1_en.asp
- Duibhir, P. O., & Cummins, J. (2012). *Towards and integrated language curriculum in early childhood and primary education (3-12 years): Commissioned research report*. Dublin: NCCA 2012
- Johnston, P. H. (1992). *Constructive evaluation of literate activity*. New York, NY: Longman.
- Johnston, P. H., & Rogers, R. (2003). Early literacy development: The case for "informed assessment". In Susan B. Neuman & David K. Dickinson, *Handbook of early literacy research (Vol. 1, pp. 377-389)*. New York, NY: 2002 The Guilford Press.
- LINUS bantu kuasai asas literasi, numerasi (2014). Retrieved from http://www2.bharian.com.my/bharian/articles/LINUSbantukuasaiasasliterasi_numerasi/Article/index.html
- Lonigan C. J., Allan N. P., & Lerner M. D. (2011, May 1). Assessment of preschool early literacy skills: Linking children's educational needs with empirically supported instructional activities. *Psychology in the Schools, 48*(5), 488-501.
- Messick, S. (1995). Validity of psychological assessment: Validity of inferences from persons' responses and performances as scientific inquiry into score meaning. *American Psychologist, 50*, 741-749.
- National Institute for Literacy. (n.d.). *Early beginnings: Early literacy knowledge and instruction*. Washington, DC: Author. Retrieved from <https://lincs.ed.gov/publications/pdf/NELPEarlyBeginnings09.pdf>
- Samad, A. A. (2010). *Essentials of language testing for Malaysian teachers (Revised Ed.)*. Serdang: Universiti Putra Malaysia Press.
- Sani, N., & Idris, A. R. (2013). Implementation of Linus programme based on the model of Van Meter and Van Horn. *The Malaysian Online Journal of Educational Science, 1*(2), 25-35.
- Swaran Singh, C. K., & Abdul Samad, A. (2013). The use of portfolio as an assessment tool in the Malaysia L2 classroom. *International Journal of English Language Education, 1*(1), 94-108. Retrieved from <http://www.macrothink.org/journal/index.php/ijele/article/view/2851/2367>
- Shavelson, R. J., & Webb, N. M. (1991). *Generalizability theory: A primer*. London, UK: Sage.

Special Module for National Service Trainees: Malaysia. (2014, October 30). Retrieved from <http://news.asiaone.com/News/AsiaOne+News/Malaysia/Story/A1Story20110912-299006.html>

UNESCO Institute for Lifelong Learning (2009-2014). (2014, Nov 6) Early Literacy Project. Retrieved from <http://www.unesco.org/uil/litbase/?menu=4&letter=E&programme=139>