DOI: https://doi.org/10.31949/ijeir.v3i1.7243

Formative assessment in Timor-Leste: teachers' perception and practice

Melky Costa Akoyt

Department of English Teaching and Translation, Dili Institute of Technology, Timor-Leste *Corresponding Author: akoyt2017@gmail.com

ABSTRACT

Formative assessment is vital in many educational contexts because it helps improve students' learning outcomes. Like many other countries, Timor-Leste education promotes formative assessment alongside other educational assessments. Yet, the use of formative assessment in Timorese classroom is still a subject of inquiry. This study aimed to investigate Timorese teachers' perceptions and practices of formative assessment in the classrooms and examine their differences. The sample was drawn from 50 teachers working in 14 primary schools within Dili municipality. The data was gathered through a questionnaire survey. The questionnaire consisted of demographic information, teachers' perceptions, and their practices. The results showed that many Timorese teachers had positive perceptions of formative assessment. They knew the importance and the role of formative assessment for learning. However, the teachers' practices of formative assessment differed from their perceptions. Most teachers rarely apply formative assessment and its various strategies in their classrooms. This research suggests that relevant government bodies, such as the Ministry of Education, must consider the importance of educational qualifications and continuous professional development programs. Large class sizes and the lack of internal school support also become essential aspects that need attention from the government. The findings of this research provided insights that can be incorporated into the existing literature and serve as the basis for further research in the Timorese education context, particularly in primary education.

ARTICLE HISTORY

ISSN: 2810-0808

Received 2023-10-31 Accepted 2024-01-02

KEYWORDS

Formative assessment Timor-Leste education Teachers' perception Teachers' practice Classroom assessment

INTRODUCTION

The role of formative assessment in the classroom is important because it allows teachers and students to use assessment results obtained during teaching and learning. Formative assessment is an activity that teachers and students use in the classroom to collect information about students' learning and use the information to modify their teaching and learning strategies (Black & Wiliam, 1998).

Black and William (2009) highlighted the students' role in negotiating learning objectives with teachers, participating in collaborative learning, and strengthening their self-directed learning. Drawing on the definitions in their previous work, Black and William (2009) redefined formative assessment:

Practice in a classroom is formative to the extent that evidence about student achievement is elicited, interpreted, and used by teachers, learners, or their peers, to make decisions about the next steps in instruction that are likely to be better, or better founded, than the decisions they would have taken in the absence of the evidence that was elicited. (p. 9)

The term instruction is used in the definition instead of teaching because it emphasizes the relationship between teaching and learning. It means that teachers and students actively participate in the



learning process. In this sense, teachers, students, and students' peers work together to gain positive learning outcomes. The core component of formative assessment is the teacher's and students' actions to modify classroom instruction based on the information gathered during the assessment. In other words, teachers and students must use the data they obtain to adapt teaching and enhance student learning.

Research shows that formative assessment plays a significant role in the classroom as it encourages student engagement and improves learning outcomes (Andersson & Palm, 2018; Black & Wiliam, 1998). It allows teachers to monitor their student's progress while encouraging them to be responsible for their learning. Since Black and William's meta-analysis of formative assessment in 1998 yielded considerable advantages, numerous studies have firmly stated the benefits of formative assessment. These benefits include promoting student-initiated self-assessment (Lee et al., 2012), strengthening cognitive development for high achievers and low achievers students (Hopster-den Otter et al., 2017; Jónsson et al., 2018), improving motivation (Chua et al., 2017; Meusen-Beekman et al., 2016; Mohamadi, 2018), giving input to teachers and students (Boston, 2002), and being fun and interactive while providing helpful feedback on learning (Hudson & Bristow, 2006). Several factors, however, may become obstacles to formative assessment procedures in the classroom. Students' poor understanding of assessment criteria (Irons, 2008), teachers' need for more expertise with formative assessment (DeLuca et al., 2019; Rashid & Jaidin, 2014), and the restricted time available for assessment (Lee et al., 2012) are among these challenges.

Teachers' perception of formative assessment is considered vital because it can influence the implementation of formative assessment in the classrooms. The term "teachers' perceptions" in this study refers to teachers' views on the importance of formative assessment in teaching and learning. Teachers' views on whether using formative assessment is effective affect their actual practice in the classroom. Studies discovered that the more favorable teachers' perceptions of the ideal formative assessment results, the more motivated they were to use formative assessment (Wong, 2014; Sezen-Barrie & Kelly, 2017). Acknowledging the benefits of formative assessment in monitoring students' learning progress, informing instructional changes, and encouraging productive classroom activities increases the implementation of formative assessment in classrooms frequently (Dixon & Haigh, 2009; Sezen-Barrie & Kelly, 2017; Brink & Bartz, 2017).

On the contrary, teachers who need clarification about the importance of formative assessment may limit the use of formative assessment in the classrooms. For example, teachers may not use formative assessment techniques regularly, or teachers might not analyze data to make further decisions. However, the relationship appears more complex because other factors may also affect the teachers' views and practices. Many studies found that teachers' education, professional training, skill and ability, self-efficacy, school environment, internal school support, working conditions, and student characteristics strongly influenced teachers' intention and practice of formative assessment (Crichton & McDaid, 2016; Brink & Bartz, 2017; Ahmedi, 2019; DeLuca et al., 2019; Lyon et al., 2019).

Timor-Leste's primary and secondary education has shown progress since Timor-Leste restored its independence from Indonesia in 2002. Many Indonesian teachers left the country, and hundreds of buildings were destroyed during the transition period. Therefore, the government recruited Timorese teachers and rebuilt the destroyed buildings. There are around 1400 public and 400 private schools throughout the country. These schools offer basic and secondary education. Basic education has three cycles: cycle one for years 1 to 4, cycle 2 for years 5 and 6, and cycle three for years 7 to 9. Secondary education consists of years 10 to 12 with two pathways: general and technical vocational. (UNICEF, 2020). Recently, the Ministry of Education has implemented a national curriculum for years 1 to 6 while working on a new curriculum for years 7 to 9. The Ministry of Education is also considering curriculum renewal for years 10 to 12. Continuous professional development for teachers and school administrators in years 1 to 9 steadily enhances classroom practices and student achievement (Owen & Salsinha, 2022).

The Timor-Leste educational framework integrates formative assessments into the primary education curriculum and ongoing and summative assessments (Ministry of Education, 2014). All these assessments are used to help students achieve their full potential. There are no summative tests for students in years 1 and 2; instead, formative and ongoing assessments are encouraged to be used in these two years. However, for students in years 3 to 6, final school-based tests have substituted national exams in a variety of disciplines, with 60% of the overall results based on work done during the year and 40% from the tests. Reports are provided to parents or guardians with the following categories: "not yet able," "little ability," "able with support," "able," and "independent" (Owen & Wong, 2021). Despite government initiatives to introduce a variety of assessments into primary education, the ongoing use of assessments remains a significant concern in Timor-Leste. It can be seen from the percentage of repeating year level. Data shows that 44% of students aged 13 to 15 are still in grades 1 to 6 (Government of Timor-Leste, 2019).

Several scholars have investigated the perceptions of formative assessment and its implementation in the classrooms across different contexts and levels of education. The studies reveal positive views toward formative assessment among teachers and students. For example, lecturers and students in Scotland had good perceptions about formative assessment. The students felt that formative assessment helped them monitor their learning, and lecturers gained insights to help them improve their lessons (McCallum & Milner, 2021). Similarly, in Singapore, Kaur and Lim-Ratnam (2023) investigated six primary school teachers and found that teachers who embraced formative assessment were likelier to implement its activities in their classrooms. However, some studies found an inconsistency between the perception and implementation of formative assessment. For instance, a study by Ahmedi (2019) examined teachers' attitudes and practices of formative assessment in Kosovo primary schools. His investigation shows significant differences between teachers' views and formative assessment practices. The majority of teachers believed in formative assessment strategies, but they did not apply the strategies in their teaching. In South Africa, only a few teachers could use formative assessment strategies effectively (Kanjee, 2020). Research in other education contexts like Mexico, Netherlands, and Afghanistan demonstrate similar results that formative assessment was not fully implemented in the classrooms (Lozano Rodriguez et al., 2021; Veugen et al., 2021; Golzar et al., 2022).

While many studies have been conducted on teachers' views and implementation of formative assessment in various contexts, the primary school's context is underrepresented. Moreover, none of the previous research investigated teachers' perceptions and practices of formative assessment in Timor-Leste. Therefore, this study aims to address the gaps, which can also be a basis for future research on formative assessment in Timorese classrooms.

This research addresses the following questions:

- 1. What are Timorese teachers' perceptions and practices of formative assessment?
- 2. Are there differences between teachers' perceptions and practices of formative assessment in the classroom?

METHODS

Research design

In this research, the researcher used a quantitative approach. As the objective of this research was to elicit perceptions and practices about formative assessment from a wide range of teachers, a survey was a suitable instrument to gather the data (Bell, 2010). Thus, the researcher developed a questionnaire survey, piloted it with five professional teachers, modified it based on their feedback and implemented it. The survey included a unipolar 3-point Likert rating scale aimed at capturing teachers' perceptions and practices on a variety of formative assessment topics. The reason for breaking up the original 5-point Likert scale into three categories (perception: disagree, unsure, agree; practice: rarely, sometimes, often) was to enhance the clarity

of teachers' perceptions and practices. Following the pilot study, the researcher used 12 perception and practice statements related to aspects of formative assessment identified in the literature. Besides, the participants were also asked to complete demographic information (gender, age, education, teaching experience).

Sampling information

Questionnaires were distributed to a sample of 50 teachers in 14 primary schools within Dili municipality (note: Dili is the capital city of Timor-Leste). The participants filled out the questionnaires online or in person. As for online, the researcher used Google Forms and shared the link with the identified participants. The participants who could not access the questionnaire online completed them in person. A participant needed about 10 to 15 minutes to complete the questionnaire.

As Table 1 shows, 52% of the sample consisted of male teachers, while 48% were female teachers. This data suggests that, although the number of male teachers' was slightly higher than female, the sample had almost equal representatives of the teachers from the 14 primary schools. The participants aged 25 to 44 dominated this survey, accounting for 78%. Regarding educational background, around 26% of participants reported completing secondary school, while 24% held an associate degree or Timor-Leste's higher education system called *Baxarelatu*. The largest portion, constituting 50% of the participants, possessed a bachelor's degree. This breakdown provides a sense of the survey respondents' educational background, with many having bachelor's degrees. In terms of experience, the sample was more evenly distributed throughout all categories, with 18% of the sample in their early careers and 12% with more than 20 years of teaching experience.

Table 1. Sociodemographic variables

Variable	Value	N	Percentage
			(%)
Gender	Male	26	52
	Female	24	48
Age	below 25	6	12
	25 to 34	22	44
	35 to 44	17	34
	45 and above	5	10
Education:	Secondary school	13	26
	Associate degree	12	24
	Bachelor's degree	25	50
Teaching experience (years)	1 to 5	9	18
	6 to 10	17	34
	11 to 20	18	36
	20 and above	6	12

Reliability test of instrument using Cronbach's Alpha model

To test the internal reliability of the instrument, the researcher used Cronbach's Alpha, and generated a high value of .906, confirming great internal consistency among the survey items. When utilising standardised Cronbach's alpha, the reliability remained stable at .908. The analysis was carried out on a total of 12 questions, demonstrating that the survey was a reliable tool for measuring teachers' perception and practice.

Table 2. Reliability analysis of instruments using Cronbach's Alpha model

Cronbach's alpha	Standardized Cronbach's Alpha	No of items
.906	.908	12

Data analysis

Data derived from sociodemographics, perception, and practice were coded and analysed using MS Excel (XLSTAT). The data was tested for its internal reliability using Cronbach's Alpha before making further statistical analysis.

In terms of further statistical analysis, the researcher first analysed the sociodemographic data to see the central tendency of each variable in the data. To investigate the differences between teachers' perceptions and their classroom practices, the researcher used a pair-sample t-test. Before getting into the t-test findings, the researcher reviewed the descriptive statistics for both variables to analyse sample size, mean, and standard deviation. The researcher conducted a pair-sample t-test to find out if there was a statistically significant difference between teachers' perceptions and classroom practices. As for the interpretation of the results, the significant level (α) at .05 was set to accept or reject the null hypothesis. Furthermore, the researcher also applied the Pearson correlation coefficient to measure the correlation between variables.

RESULTS AND DISCUSSION

The current study aims to explore Timorese teachers' perceptions and practices of formative assessment. This investigation uncovered the ways in which Timorese teachers perceive formative assessment and how these perceptions are transformed into classroom practices. Furthermore, this study also delved into differences between teachers' views of formative assessments and their actual classroom practices. This comparison sheds light on any gaps that might be present between teachers' perceptions of formative assessment and their use of it in their classrooms.

Teachers' perceptions of formative assessment

The researcher used descriptive statistics to present the data. Table 3 displays all participants' responses to the perception statements. Findings are ranked based on the agreement levels, starting with the highest ones.

The data showed that the highest agreement was with the statements, 'I believe that formative assessment can promote learning' and 'I want to learn more about formative assessment practice'. Both statements received similar percentages. Of the teachers, 92% agreed with the statement, 8% expressed uncertainty, and no teachers disagreed. A high level of agreement (90%) was also expressed concerning statement 1, 'Formative assessment is an important part of my teaching practices'. Thus, teachers strongly agreed that formative assessment can promote learning. They wanted to learn more about formative assessment as they considered its importance in their teaching.

Firmly positive perceptions remained consistently high for statements 2 and 5, which exhibited similar agreement percentages, with 88% agreement. However, teachers expressed the greatest uncertainty (unsure) to statement 4: "I am confident to perform formative assessment in my classroom" (44% unsure), with 8% feeling unconfident (disagree).

Table 3. Teachers' perceptions of formative assessment

Perception statement (dependent variable)	Disagree	Unsure	Agree	Mean	Std. Deviation
Per 3: I believe that formative assessment can	0%	8%	92%	2.92	.27405
promote learning					
Per 6: I want to learn more about formative	0%	8%	92%	2.92	.27405
assessment practice					
Per 1: Formative assessment is an important part of	2%	8%	90%	2.88	.38545
my teaching practices					
Per 2: Making mistakes enhance learning	0%	12%	88%	2.88	.32826
Per 5: I am motivated to use formative assessment	0%	12%	88%	2.88	.32826
in my classroom					
Per 4: I am confident to perform formative	8%	44%	42%	2.4	.63888
assessment in my classroom					

Teachers' practices of formative assessment

Similar to the perception, descriptive statistics were used to display this data. Table 4 shows all participants' responses to the practice statements.

The data indicated that all teachers implemented formative assessment in their classrooms. However, the frequency of formative assessment practices varied among teachers. A substantial proportion (56%) of teachers claimed they rarely used formative assessment in their classrooms. Meanwhile, 18% of teachers often integrated such assessments into their teaching, and 26% do so sometimes. A significantly high percentage (above 60%) can also be observed for statements about using a variety of formative assessment techniques in my classroom, providing constructive feedback to students, and adapt my teaching based on the feedback. A significant percentage (82%) of teachers also reported that using peer and self-assessment was rare in their classrooms. Furthermore, a considerable percentage of teachers (58%) stated that they rarely used formative assessment to identify students who need assistance. This data, therefore, demonstrated that most teachers rarely integrated formative assessment in their classrooms.

Table 4. Teachers' practices of formative assessment

Practice statement (dependent variable)	Rarely	Sometimes	Often	Mean	Std. Deviation
Pra 1: I use formative assessment in my classroom	56%	26%	18%	1.62	.77959
Pra 2: I use a variety of formative assessment	68%	26%	6%	1.38	.60238
techniques in my classroom					
Pra 3: I use formative assessment to identify	58%	26%	16%	1.58	.75835
students who may need support					
Pra 4: I use peer and self-assessment as part of	82%	16%	2%	1.2	.45175
formative assessment					
Pra 5: I provide constructive feedback to students	66%	28%	6%	1.4	.60609
Pra 6: I adapt my teaching based on the feedback	64%	30%	6%	1.42	.60911
from formative assessments					

Correlation and T-test results

The aim of using the T-test was to investigate whether teachers' perceptions of formative assessment differed from their practices in classrooms. The results (table 5) indicated that the teachers' perceptions' average towards formative assessment is 2.8133, the standard deviation is .25785, and the average standard

error is .03647, whereas the average of practices is 1.4333, the standard deviation is .55635, and the average standard error is .07868.

Table 5. Teachers' perceptions and practices

Paired samples statistics							
	Mean	N	Std. Deviation	Std. Error Mean			
Total of perceptions	2.8133	50	.25785	.03647			
Total of practices	1.4333	50	.55635	.07868			

Table 6 displays the results of the paired sample t-test of the differences between the teachers' perceptions and their practices. The results showed that the positive mean difference is 1.38000. It means that, on average, teachers' perceptions of formative assessment are higher than their actual practices. The t-statistic is 19.949, which is significantly different from zero. The p-value of .000 is less than the typical significant difference level of .05. This data indicated a statistically significant discrepancy between teachers' perceptions and their actual formative assessment practices in classrooms. The results suggested that although teachers positively perceived formative assessment, they did not incorporate it in classrooms accordingly.

Table 6. Differences between teachers' perceptions and practices

	Mean	Std.	Std. Error	95% Confidence		t	Sig.
		Deviation	Mean	Interval			(2-tailed)
Differences	1.38000	.48424	.06848	1.241	1.519	19.949	.000

Apart from the paired sample t-test, a correlational analysis was also conducted. Table 7 displays that the correlation coefficient (r) is .477 and the significant value (sig.) is .000. The positive value of correlation coefficient indicated a moderate positive linear relationship between teachers' perceptions and practices. Meanwhile, the significant value showed that the correlation between the two variables was statistically significant. These findings indicated that teachers who positively perceived formative assessment were more likely to implement it in the classroom.

Table 7. Correlation between teachers' perceptions and practices

	Paired	Paired sample correlation			
	N	Correlation	Sig.		
Total teachers' perceptions and practices	50	.477	.000		

Similar to previous research (McCallum & Milner, 2021; Kaur & Lim-Ratnam, 2023; Rahman et al., 2021), this study shows that many teachers have positive perceptions of formative assessment. They acknowledged the importance of formative assessment in promoting learning and considered it an essential part of their teaching practice. The teachers also wanted to learn more about formative assessment. However, the findings of this research suggest a significant difference between teachers' perceptions and practices. Consistent with previous studies (Kanjee, 2020; Lozano Rodriguez et al., 2021; Golzar et al., 2022), the teachers in this study, although they demonstrate positive perceptions toward formative assessment, rarely implemented it in their classrooms. The results show that only a few teachers often used formative assessment. Not only was the formative assessment rarely used in class, but various formative assessment techniques, such as peer and self-assessment, were infrequently employed in most teachers' classrooms.

The findings reveal unprecedented evidence that teachers' motivation to do something cannot guarantee their real action in the classrooms. In this research, most teachers (88%) had high motivation to apply formative assessment in their classrooms. They knew the importance of formative assessment and its benefits for learning. However, only a small number of teachers (18%) regularly implement formative assessment in their classrooms. Moreover, of these teachers, only 6 percent use various formative assessment techniques. The findings contradict the results of Kaur and Lim-Ratnam (2023), where teachers used formative assessment in the classrooms because they were highly motivated.

One possible reason for the difference can be the teachers' education and training. Teachers' knowledge and skills can influence their ability to implement formative assessment. Teachers must possess sufficient knowledge and skills before using formative assessment (Rashid & Jaidin, 2014). Timor-Leste's primary education teachers' qualification still concerns Timorese's education. Although 90% of the teachers hold a bachelor's degree, more than 50% had obtained this qualification through an equivalency program conducted by the National University of Timor-Leste and INFORDEPE (an in-service organization for teacher's education). Timor-Leste government established the program to improve teachers' qualifications. However, the program's effectiveness raised concerns because it focused on curriculum content rather than pedagogical training (Owen & Salsinha, 2022). Besides, direct professional training for primary education teachers has been limited. The Australian government has initiated a professional training program called ALMA to support school leaders and teachers. This program, nevertheless, is more focused on developing school leaders' leadership with little training in teaching. The indication that ALMA has contributed to students' learning outcomes is inconclusive because of the absence of a regular national assessment of learning outcomes (Cassity et al., 2023). According to DeLuca et al. (2019), teachers will be more comfortable applying formative assessment if they receive continuous professional training and support from knowledgeable professionals. Therefore, education and pedagogical training are essential for teachers to perform formative assessments in their classrooms effectively.

The large class sizes and internal school support can be other reasons for the perception-practice gap. Evidence from previous studies suggests that teachers teaching larger classes have less courage to practice formative assessment due to the difficulties of time and classroom management (Brown & Gao, 2015; Brink & Bartz, 2017). Timor-Leste education also faces classroom challenges like education in other developing countries. In Timor-Leste, most primary schools accommodate more than 40 students in one class. Teachers would find it challenging to include formative assessment techniques with this class size. Internal school support may also be another obstacle to formative assessment practice. Teachers will implement formative assessments when there is adequate support from the school where they teach. Research has proved that teachers are reluctant to implement formative assessment without formal support measures (Crichton & McDaid, 2016). In the context of Timor-Leste education, teachers generally receive support from school leaders through mentoring and class observation (Cassity et al., 2023). Nonetheless, the internal school support is limited to mentoring and class observation only. According to Brink and Bartz (2017), school leaders should prioritize formative assessment while providing practical technical guidance, ongoing professional development, and other essential resources for curriculum change. These supports can boost teachers' inclination to incorporate formative assessment.

An important practical consideration from this study is that teachers need solid Education and pedagogical training. The teachers' degrees and professional training programs should concentrate on pedagogical training. The Ministry of Education needs to provide a regular professional development program to schools and some experts to guide and help improve teachers' pedagogical knowledge and skills. In addition, to successfully integrate formative assessment techniques into classrooms, the government, through the Ministry of Education, should find ways to solve large class sizes and strengthen internal school support.

CONCLUSION

To summarize, this study has addressed the research questions by exploring the Timorese teachers' perceptions and practices of formative assessment and examining the difference between the teachers' perceptions and practices. Although many Timorese teachers expressed positive perceptions of formative assessment, they rarely used it in their classrooms. Thus, this research highlights the importance of developing teachers' pedagogical knowledge and skills in particular classroom assessments. Moreover, this study suggests addressing class size issues and strengthening internal school support. Hence, relevant government bodies such as the Ministry of Education must provide more intensive pedagogical training and find solutions for issues related to large class sizes and internal school support. The findings of this research provided insights that can be added to the existing literature and serve as the basis for further research in the Timorese education context, especially in primary education.

This study comes with limitations as well. First, the sample size was small, with only 50 primary school teachers. Also, the schools participating in this study were located within one municipality. Further studies may extend the number of participants and include teachers from other municipalities in Timor-Leste to gain wider perception and practice. Although this investigation only used a survey questionnaire to gather data, it can be a basis for future formative assessment research in Timor-Leste. Further research can include surveys, interviews, and class observation to gather richer data about using formative assessment in Timorese classrooms.

REFERENCES

- Ahmedi, V. (2019). Teachers' Attitudes and Practices Towards Formative Assessment in Primary Schools. *Journal of Social Studies Education Research*, 10(3), 161–175.
- Andersson, C., & Palm, T. (2018). Reasons for teachers' successful development of a formative assessment practice through professional development a motivation perspective. *Assessment in Education: Principles, Policy & Practice, 25*(6), 576–597. https://doi.org/10.1080/0969594X.2018.1430685
- Bell, J. (2010). Doing your research project (5th ed.). Open University Press.
- Black, P., & Wiliam, D. (1998). Assessment and Classroom Learning. *Assessment in Education: Principles, Policy & Practice*, *5*(1), 7–74. https://doi.org/10.1080/0969595980050102
- Black, P., & Wiliam, D. (2009). Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability*, 21(1), 5–31. https://doi.org/10.1007/s11092-008-9068-5
- Boston, C. (2002). The Concept of Formative Assessment. https://doi.org/10.7275/KMCQ-DJ31
- Brink, M., & Bartz, D. E. (2017). *Effective Use of Formative Assessment by High School Teachers*. https://doi.org/10.7275/P86S-ZC41
- Brown, G. T. L., & Gao, L. (2015). Chinese teachers' conceptions of assessment for and of learning: Six competing and complementary purposes. *Cogent Education*, *2*(1), 993836. https://doi.org/10.1080/2331186X.2014.993836
- Cassity, E., Chainey, J., & Wong, D. (2023). *Education analytics service: Teacher development multi-year studies* (Final Report). Australian Council for Education Research. https://research.acer.edu.au/cgi/viewcontent.cgi?article=1056&context=eas
- Chua, H. L., Lee, S. H., & Fulmer, G. W. (2017). Action research on the effect of descriptive and evaluative feedback order on student learning in a specialized mathematics and science secondary school. *Asia-Pacific Science Education*, *3*(1), 4. https://doi.org/10.1186/s41029-017-0015-y
- Crichton, H., & McDaid, A. (2016). Learning intentions and success criteria: Learners' and teachers' views. *The Curriculum Journal*, *27*(2), 190–203. https://doi.org/10.1080/09585176.2015.1103278

- DeLuca, C., Chapman-Chin, A., & Klinger, D. A. (2019). Toward a Teacher Professional Learning Continuum in Assessment for Learning. *Educational Assessment*, 24(4), 267–285. https://doi.org/10.1080/10627197.2019.1670056
- Dixon, H., & Haigh, M. (2009). Changing mathematics teachers' conceptions of assessment and feedback. *Teacher Development*, *13*(2), 173–186. https://doi.org/10.1080/13664530903044002
- Golzar, J., Momenzadeh, S. E., & Miri, M. A. (2022). Afghan English teachers' and students' perceptions of formative assessment: A comparative analysis. *Cogent Education*, 9(1), 2107297. https://doi.org/10.1080/2331186X.2022.2107297
- Government of Timor-Leste. (2019). From ashes to reconciliation, reconstruction and sustainable development.

 Report on the implementation of the Sustainable Development Goals, Voluntary National Review of Timor-Leste 2019. https://sustainabledevelopment.un.org/
- Hopster-den Otter, D., Wools, S., Eggen, T. J. H. M., & Veldkamp, B. P. (2017). Formative use of test results: A user's perspective. *Studies in Educational Evaluation*, *52*, 12–23. https://doi.org/10.1016/j.stueduc.2016.11.002
- Hudson, J. N., & Bristow, D. R. (2006). Formative assessment can be fun as well as educational. *Advances in Physiology Education*, 30(1), 33–37. https://doi.org/10.1152/advan.00040.2005
- Irons, A. (2008). Enhancing learning through formative assessment and feedback. Routledge.
- Jónsson, Í. R., Smith, K., & Geirsdóttir, G. (2018). Shared language of feedback and assessment. Perception of teachers and students in three Icelandic secondary schools. *Studies in Educational Evaluation*, *56*, 52–58. https://doi.org/10.1016/j.stueduc.2017.11.003
- Kanjee, A. (2020). Exploring primary school teachers' use of formative assessment across fee and no-fee schools. *South African Journal of Childhood Education*, *10*(1). https://doi.org/10.4102/sajce.v10i1.824
- Kaur, K., & Lim-Ratnam, C. (2023). Implementation of formative assessment in the English language classroom: Insights from three primary schools in Singapore. *Educational Research for Policy and Practice*, 22(2), 215–237. https://doi.org/10.1007/s10671-022-09327-y
- Lee, H., Feldman, A., & Beatty, I. D. (2012). Factors that Affect Science and Mathematics Teachers' Initial Implementation of Technology-Enhanced Formative Assessment Using a Classroom Response System. *Journal of Science Education and Technology*, *21*(5), 523–539. https://doi.org/10.1007/s10956-011-9344-x
- Lozano Rodriguez, A., Gallardo, K., Tapia Ruelas, C. S., & Piza Gutierrez, R. I. (2021). Perceptions of Formative Assessment in Secondary Education: Beyond Teaching Styles. *The International Journal of Assessment and Evaluation*, 28(2), 35–51. https://doi.org/10.18848/2327-7920/CGP/v28i02/35-51
- Lyon, C. J., Nabors Oláh, L., & Caroline Wylie, E. (2019). Working toward integrated practice: Understanding the interaction among formative assessment strategies. *The Journal of Educational Research*, *112*(3), 301–314. https://doi.org/10.1080/00220671.2018.1514359
- McCallum, S., & Milner, M. M. (2021). The effectiveness of formative assessment: Student views and staff reflections. *Assessment & Evaluation in Higher Education*, 46(1), 1–16. https://doi.org/10.1080/02602938.2020.1754761
- Meusen-Beekman, K. D., Joosten-ten Brinke, D., & Boshuizen, H. P. A. (2016). Effects of formative assessments to develop self-regulation among sixth grade students: Results from a randomized controlled intervention. *Studies in Educational Evaluation*, 51, 126–136. https://doi.org/10.1016/j.stueduc.2016.10.008
- Ministry of Education. (2014). *Kurrikulu Nasional Ensinu Baziku Siklu Dahuluk No Daruak*. Democratic Republic of Timor-Leste, Dili.

- Mohamadi, Z. (2018). Comparative effect of online summative and formative assessment on EFL student writing ability. *Studies in Educational Evaluation*, 59, 29–40. https://doi.org/10.1016/j.stueduc.2018.02.003
- Owen, S., & Salsinha, A. (2022). Basic Education in Timor-Leste. In L. P. Symaco & M. Hayden (Eds.), *International Handbook on Education in South East Asia* (pp. 1–32). Springer Nature Singapore. https://doi.org/10.1007/978-981-16-8136-3_17-1
- Owen, S., & Wong, D. (2021). Timor-Leste education: Supporting sustainable system-wide reform and school leader capacity-building through collaborative foreign aid. *Journal of Educational Change*, 22(3), 379–400. https://doi.org/10.1007/s10833-020-09397-w
- Rahman, Kh. A., Hasan, Md. K., Namaziandost, E., & Ibna Seraj, P. M. (2021). Implementing a formative assessment model at the secondary schools: Attitudes and challenges. *Language Testing in Asia*, 11(1), 18. https://doi.org/10.1186/s40468-021-00136-3
- Rashid, R. A., & Jaidin, J. H. (2014). Exploring Primary School Teachers' Conceptions of "Assessment for Learning". *International Education Studies*, 7(9), p69. https://doi.org/10.5539/ies.v7n9p69
- Sezen-Barrie, A., & Kelly, G. J. (2017). From the teacher's eyes: Facilitating teachers noticings on informal formative assessments (IFAs) and exploring the challenges to effective implementation. *International Journal of Science Education*, *39*(2), 181–212. https://doi.org/10.1080/09500693.2016.1274921
- UNICEF. (2020). Review of Education Management Information System (EMIS) that track individual data Timor-Leste. https://www.unicef.org/eap/media/5726/file/EMIS% 20timor-leste.pdf
- Veugen, M. J., Gulikers, J. T. M., & Den Brok, P. (2021). We agree on what we see: Teacher and student perceptions of formative assessment practice. *Studies in Educational Evaluation*, *70*, 101027. https://doi.org/10.1016/j.stueduc.2021.101027
- Wong, M. W. Y. (2014). Assessment for Learning, a decade on: Self-reported assessment practices of secondary school music teachers in Hong Kong. *International Journal of Music Education*, *32*(1), 70–83. https://doi.org/10.1177/0255761413491056