



The Role of the Online Professional Learning Community in Developing Formative E-assessment Strategies for In-Service Omani Teachers

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ABSTRACT

Previous studies indicated that teachers may have knowledge of formative assessment strategies but they lack using these strategies in the classroom. Therefore, this action research aims at investigating the effectiveness of using online professional learning communities in promoting formative e-assessment strategies practices at cycle 1 private schools. To achieve the purpose of the study, thirty-Eight female English teachers participated in this study from 5 private schools in Oman. A questionnaire and semi-structured interviews were used to answer the research questions. The results of the study indicated that teachers used formative e-assessment strategies significantly after they were exposed to the online professional learning community programme. Regarding the dimensions analysis, teachers employed feedback strategies more than other kinds of strategies after they attended the online professional learning community workshops. Moreover, the thematic analysis of the interviews produced three themes related to the benefits of online professional learning community which are developing personal skills, enhancing professional skills and improving students' performance. In the light of these findings, it is recommended to train in-service teachers to implement more formative strategies such as sharing learning intentions and success criteria to their students because some English teachers are unfamiliar with this kind of strategy and they rarely use them in the classroom. It is also recommended that Ministry of Education adopts online professional learning community to develop teachers' skills, specifically formative e-assessment.

Keywords: Online professional learning community, formative e-assessment strategies, in-service teachers



INTRODUCTION

Formative E-assessment is one of the most essential aspects of the instructional process nowadays. However, some teachers ignore its importance and benefits in the educational institutions because they lack the essential knowledge of using formative e-assessment strategies in the classrooms or outside the classroom. Since the publication of the substantial work by Black and Wiliam (1998), formative assessment has been studied significantly in the educational field (Kingston & Nash, 2011). These researchers were inspired by Sadler's (1989) work in which he posited the underlying principles of formative assessment theory. Subsequently, Black and Wiliam (2009) developed a theory of formative assessment in which they identified five principles that can be implemented in the classrooms. Consequently, researchers and teachers have conducted several studies in various disciplines and including EFL field whether qualitatively (e.g., Xiao, 2017) or using mixed-methods studies (e.g., Saito & Inoi, 2017). Most recently, Black and Wiliam (2018) published an article in which they defined the relationship between the formative assessment and pedagogy and they suggested several ways to transform the summative assessment into formative assessment. Prior to Black and Wiliam's work, Brookhart (1997) postulated a theoretical framework that has been used to assist teachers to deal with classroom assessment. However, this theory discusses both formative and summative assessment not merely formative. Hence, Black and Wiliam's (2009) model will serve as the main framework for the design of the proposed questionnaires for the perceptions and practices of the EFL teachers toward FA in the current study as suggested by Saito and Inoi's (2017) study.

Regarding the previous reviews about the formative assessment, there is a large body of literature that has examined the importance of formative assessment (FA) when teaching different subjects in K-12 schools (Kingston & Nash, 2011). All of these studies maintained that applying the principles of FA in the classroom has positive effects on students' performance (Black & Wiliam, 1998). In their meta-analysis study, Kingston and Nash (2011) found that using FA increased the students' performance in Mathematics, Science and English language arts studies, however, English language arts obtained the highest effect size ($d = .32$). Despite of the effectiveness of FA, there are discrepancies in terms of teachers' knowledge and practices in most of previous studies (e.g., Burner, 2016; Gu, 2016; Öz & Atay, 2017; Volante & Beckett, 2011; Zhou & Deneen, 2016). With regard to the Omani context, Alkharusi et al. (2012) conducted an exploratory study in the Sultanate of Oman, and they found that English teachers gained the least scores in the knowledge of classroom assessment compared to Mathematics and Science teachers. The researchers concluded that that might affect students' performance negatively when teaching English in the classroom. In addition, Ministry of Education in Oman, through Students Assessment Handbook (SAH), ascertains that English teachers should use various formative assessment strategies when they teach the lessons in the classrooms (Ministry of Education, 2018), though, most of English teachers rarely use these strategies while teaching (Alkharusi et al., 2014). Although teachers in Oman hold positive attitudes towards educational assessment, their knowledge of using its principles is somehow low (Alkharusi et al., 2014). In a similar vein, most previous studies in the Omani context used quantitative methods and there is a call to conduct research using interviews and direct observation in the Omani classrooms (Alkharusi et al., 2014). To the best of the researchers' knowledge, few studies have been conducted in the Omani educational setting which have explored the teacher's perceptions and practices towards formative



e-assessment. Therefore, the current study attempts to explore the perceptions and practices of FA because English teachers rarely use formative e-assessment strategies according to the researcher's experience. Moreover, through the recurrent classroom visits to private schools as a supervisor, few teachers use formative e-assessment strategies in the classroom. Finally, the researcher conducted a needs analysis before designing the online professional learning community (OPLC) and most teachers agreed that they lacked using formative e-assessment strategies while teaching in the classroom as shown the Table 1 below.

Table 1
Needs Analysis for English Teachers

Statement	Percent
I would like to know more about active learning.	90.43
I would like more training about how to activate technology in teaching English.	82.86
I would like more training about the suitable steps of an ideal lesson.	85.71
I would like more training about effective strategies to manage the classroom.	80.00
I would like more training about how to employ VARK (visual, auditory, read/write, and kinesthetic) in the classroom.	80.00
I would like more training about different strategies, techniques and practices of formative e-assessment.	91.43
I would like more training about the differentiated education.	74.29
I would like more training about how to provide effective feedback for the students.	80.00
I would like more training about how to increase low-achievers' performance.	80.00

To solve the existing practical problem, the researcher suggests employing (OPLC) using Google Classroom Platform as it is widespread among educators inside and outside Oman. OPLC could be one of the most supportive tool for professional learning (Simanjuntak & Maruli, 2015). OPLC was found to affect positively on school performance (Song & Choi, 2017), teachers' collective efficacy (Voelkel Jr & Chrispeels, 2017), teachers' self-efficacy (Zonoubi et al., 2017) and ultimately students achievements (Hughes & Kritsonis, 2007). Therefore, in this study it is suggested that OPLC could have a crucial impact on teachers' use of formative e-assessment strategies. Hence, the aims of this study are twofold. The first aim is to investigate the effect of the OPLC in developing formative e-assessment strategies for English private schools' teachers in Oman. The second purpose is to explore the perceptions of English private schools' teachers towards the OPLC in developing formative e-assessment strategies.

Thus, the current study attempts to answer the following questions:

- 1- What is the effect of the Online Professional Learning Community in developing formative e-assessment strategies for English private schools' teachers?
- 2- How do private schools' English teachers think about online professional learning communities in regard to promoting formative e-assessment strategies?



LITERATURE REVIEW

Several studies have explored the EFL teachers' knowledge and practices of formative e-assessment globally and locally. The most recent study is by Saito and Inoi (2017) who investigated the use of FA strategies in the Japanese context. They investigated the use of FA strategies in the EFL classrooms but not the teachers' perceptions. Another study that explored the beliefs and practices of English teachers in the primary schools was conducted by Perumanathan (2014). She merely utilized qualitative instruments to gather data for the study such as classroom observations, field documents and teaching documents. However, the researcher of that study did not employ any quantitative measures to verify the finding of the qualitative data as the current study. Furthermore, Perumanathan's study depends mainly on Sadler' (1989) framework while conducting the research, however, Black and Wiliam' (2009) model is more recent and comprehensive. Additionally, another important study that is pertinent to this study was done by Öz and Atay (2017) who explored the perceptions and practices of language e-assessment literacy at tertiary level. Similarly, the researcher adopted qualitative methods using structured interviews with small number of instructors. Moreover, the study discussed the classroom e-assessment generally and did not focus on formative assessment specifically. Another important study, which was conducted by Xiao (2017), investigated the perceptions and practices of EFL teachers in China. The main instrument of the study was a questionnaire for EFL teachers, yet, no qualitative instrument was used to confirm the results of the questionnaire. In the Omani context, Alkharusi, et al (2014) investigated the educational assessment profile for teachers in various subject areas. The study deployed quantitative design only for data collection and did not focus only on EFL teachers but all subject teachers. Another study by Alkharusi (2021) for English language teachers revealed that English teachers use classroom assessment for motivating students and managing students' behavior in the classroom. A more recent study by Al Mamari (2021) indicated that formative e-assessment has a positive effect on students' writing. The last two studies were conducted in government schools in Oman. Accordingly, the recent study will bridge the gap to explore the perceptions and practices of EFL teachers at private schools in Oman using mixed method mode.

Therefore, the current action research is significant because of the following aspects:

- It raises the awareness to the importance of formative e-assessment (FEA) regarding the teachers and students in the Omani school when teaching English as a foreign language.
- It informs the stakeholder and policy makers to the essential role that FEA plays in promoting foreign language learning and teaching.
- It encourages FL teachers to use the most recent state of the art strategies which are widespread in modern education systems.
- It suggests recommendations to bridge the gap between the teachers' knowledge and their practices of FEA strategies.
- It pinpoints the current status of using FEA strategies in the Omani private Cycle 1 schools.

METHODOLOGY

The study utilized the action research design to achieve its purposes. This design was chosen to further expand and explain the quantitative data using qualitative findings so that the researcher



can select typical cases from the quantitative questionnaire to explore the perceptions and practices more deeply.

Population and Sample

The population of the study are English teachers working at private schools in Albatinah North in the Academic year 2021/2022. This population was chosen because the researcher is the supervisor of these private schools, and he can manage the online professional learning community efficiently. Therefore, the researcher employed convenience sampling to select the participants of the study. Accordingly, the sample of the study is thirty-eight female English teachers who were teaching at five private schools. Table 2 summarizes the sample of the study.

Table 2
Sample of the Study

Schools	School 1	School 2	School 3	School 4	School 5	Total
No. of Teachers	6	5	7	7	5	38

Research instruments

The current study adapted a formative assessment scale which was taken from two studies namely, O'Leary et al.'s (2013) and Saito and Inoi's (2017). These two scales measure the teachers practices of formative assessment strategies but the researcher changes the term "assessment" and use "e-assessment". The researcher extracted items from the two scales because they both adopted formative assessment theory. In this study, the researcher used three dimensions: *Sharing learning intentions and success criteria*, *Questioning and classroom discussion* and *Feedback*. Likert scale was used in the questionnaire with five response anchors ordered as follows: 1 = Never, 2 = rarely, 3 = Occasionally, 4 = almost every time, 5 = every time (See **Appendix A**). This instrument was used to answer question one in this study. The next phase was to collect qualitative data using semi-structured interviews (**Appendix B**) for the teachers' perceptions. The semi-structured interviews were used to collect data to answer question two. Eight teachers were interviewed for the purpose of answering the second question. Descriptive statistics was employed to reveal trends in the quantitative data and the qualitative data was thematized using manual coding.

Research Limitations

- The study is limited to thirty-eight private schools' teachers in Albatinah North.
- The study is limited to the Academic year 2021/2022.
- The study is limited to female English teachers.
- The study is limited to improving formative e-assessment through online professional learning community.

Research Procedures

This study follows the following procedures:

- The supervisor held different meetings with school principals and English teachers.
- The supervisor formed the professional learning community after he obtained the acceptance from all the participants.



- The supervisor held a meeting with the senior supervisor, the regional supervisor and the English teachers using the online professional learning community..
- The supervisor specified roles for each member according to their expertise.
- The supervisor shows the procedural plan for the community.
- The supervisor sent a questionnaire to assess the teachers practices of formative e-assessment strategies before starting the procedural plan.
- The supervisor and the community members executed the duties in different days for four weeks.
- Follow-up tools (a post-questionnaire, semi-structured interview and an observation card with one objective) were applied to explore the role of the online professional learning community in developing the formative e-assessment strategies.

Procedural Plan for Development

The procedural plan that was developed for this action research is based on the needs analysis of the teachers and the research problem of the study. Accordingly, the first workshop that was conducted to solve the problem of the lack of using formative e-assessment strategies was presented by the supervisor. It was about the general formative e-assessment strategies so that teachers can gain insightful ideas about the topic and be familiar with it. After teachers obtained a comprehensive idea about the topic, one of the teachers presented a specific strategy that could be employed in the classroom. She conducted a workshop about worksheets and how teachers can use them effectively in the classroom. Another teacher presented a topic about feedback and how teachers can use it appropriately. These two workshops were conducted so that teachers could gain a theoretical understanding and practical knowledge about the formative e-assessment. Finally, an experienced teacher taught an applied lesson with most teachers attending the lesson. In this applied lesson, teachers observed the formative e-assessment strategies that were done in the lesson and wrote their comments and recommendations on a sheet of paper. After the lesson, teachers discussed the steps of the lesson and the obvious formative e-assessment strategies that were used in the lesson. This step was important because teachers applied what they had been trained so that they could use these practical tips in their teaching. However, some changes were made to the procedural plan. One of the changes was a workshop that had been announced by the supervisor but unfortunately, the teacher apologized for conducting that workshop. Consequently, an alternative workshop was conducted to replace these emergent circumstances. Finally, these workshops were conducted in sequence so that teachers familiarized themselves with the formative e-assessment strategies. Then, they read about the topic and presented what they had read to other teachers. At the end, they observed formative e-assessment strategies in practice and they applied what they had learned. The following table summarizes the procedural plan:

Table 3
Procedural Plan

Development and Support plan						
Development Priorities	Objectives	Developmental Procedures	Responsibility of execution	Place and Time	Follow-up	Evidence of Achievement



Rarity of using formative e-assessment strategies during teaching	Develop the teachers' skills in using formative e-assessment with 80%	A workshop about General tools for formative e-assessment	The supervisor	Google Meet	Worksh op Evaluat ion Form	Photos + Workshop Evaluation Form
		A workshop about Worksheets as formative e-assessment tools		11/11/2021	Form	
		A workshop about Using feedback effectively	Teacher 1	Google Meet	Worksh op Evaluat ion Form	Photos + Workshop Evaluation Form
				18/11/2021	Form	
		A workshop about Using feedback effectively	Teacher 2	Google Meet	Worksh op Evaluat ion Form	Photos + Workshop Evaluation Form
		Applied lesson	Teacher 3	Private school 1	Observ ation Sheet with one objecti ve	Photos + Observation Sheet
				02/12/2021		

FINDINGS AND DISCUSSIONS

This section shows the results of the study in details and answers the research questions. This part describes if the online professional learning community has an effect on increasing formative e-assessment strategies practices or not. First, Table 4 displays the criteria for assessing the range of the means. The dimension or an item is considered high, if the mean is between 5.00 - 3.68. it is medium, if the mean is between 2.34 – 3.67 and it is low, if the mean is below 2.34.

Table 4
Range Classifications of the means

No.	Criteria	Range
1	High	(5.00 - 3.68)
2	Medium	(3.67 – 2.34)
3	Low	(2.33 - 1.00)

According to the dimension analysis, as shown in Table 5, the means for all the dimensions are high and range between 3.975 and 4.150. However, the feedback dimension obtained the highest mean among all dimensions (M = 4.150, SD = 0.613). Sharing learning intentions and success criteria dimension gained the lowest mean (M = 3.975, SD = 0.552). This result indicates



that teachers practiced feedback strategies more than other strategies in their classrooms. However, they do not share learning intention and success criteria to their students most of the time. This could be because teachers were provided with enough information about feedback strategies during the online training, and they observed many feedback strategies in the applied lesson so that they practiced more of feedback strategies in their classrooms. In contrary, sharing learning intentions and success criteria dimensions have not been exposed by the teacher extensively, therefore, they need more practice on how to implement these strategies in the classroom. This finding is in consistent with the results of Saito & Inoi's (2017) study who found that senior and junior teachers used feedback more than any other formative strategies.

Table 5
Dimensions Results

No.	No of items	Abbreviation	Dimension	Mean	SD	Percent
1	5	LISC	Sharing learning intentions and success criteria	3.975	0.552	80%
2	5	QCD	Questioning and classroom discussion	4.125	0.622	83%
3	5	FB	Feedback	4.150	0.613	83%

Regarding the items' results, as illustrated in Appendix A, the mean for all the items is also high and ranges between 3. 375 and 4. 625. That is, the *"Pupils are involved formally in providing information about their learning to their parents"* item gained the highest mean among all items ($M = 4. 625$, $SD = 0. 744$) and the item *"Pupils can explain to others what they are learning"* obtained the lowest mean ($M = 3. 750$, $SD = 0.518$). This highest mean for that item could be because teachers are directed to provide parents with formal assessment grades for all students in the parents' meeting every semester. Moreover, most teaching in cycle one schools are teacher-centred and teachers lead all discussions. Students rarely explain a lesson or deliver a mini-lesson to other students. These results are in accordance with other studies such as Kippers, et al.'s (2018) study which found that teachers rarely asked students to explain activities to other students in the classroom. Overall, the high mean for the dimensions and items indicated that online professional learning communities tend to be an excellent platform for teachers and can help them in promoting formative e-assessment strategies.

The second question explored teachers' opinions regarding the importance of the online professional learning community in enhancing the usage of formative e-assessment strategies using interviews as a research instrument. As displayed in Table 6, the thematic analysis produced three themes related to the professional learning community. Teachers think that the professional learning community can improve their personal skills, professional skills, and students' learning regarding the usage of formative e-assessment strategies (FEAS), and each one of these themes has 5, 4, and 2 categories respectively. In the first theme, teachers think that OPLC can promote FEAS by collaborating with other teachers using the best practices of FEAS as said by one of the teachers: *"One way to promote collaboration is by providing opportunities for teachers to observe each other's classrooms and teach lessons together."* It also helps in knowledge sharing scaffolding each other developing problem-solving strategies and gaining more experience when



implementing FEAS. This is noticed by a quotation of one participant when she said *"Teachers can share their innovative ideas and strategies to conduct Formative E-assessment regarding the topic."* All these categories are related to the first theme which is developing personal skills. The second theme is professional development in which teachers can develop FEAS professionally when joining OPLC so that they can use these strategies while teaching. This notion is evident in the quotation that *"Sure I will join other Online Professional Communities to develop my skills as a teacher."* It also helps teachers learn effective and new strategies of formative e-assessment and then use these strategies practically while teaching. Finally, teachers think that OPLC can enhance students' learning by creating changes in the classroom and improving their performance. As one teacher said, "we can adapt the new ways and work for the best of the students."

Table 6
Thematic analysis for the interviews

Theme	Category	Codes	Frequency	Examples
Personal skills	collaboration	teach lessons together	5	"One way to promote collaboration is by providing opportunities for teachers to observe each other's classrooms and teach lessons together."
	knowledge sharing	share their innovative ideas	4	"teachers can share their innovative ideas and strategies to conduct Formative E-assessment regarding to the topic."
	problem solving	tackling the faced issues	2	"Teachers can guide each other and we can solve the issues that we face."
	scaffolding others	scaffold other members	6	"to use Formative E-assessment that scaffold other members too"
	Get more experiences	have more experience	7	"Because I want to have more experience and get a variation of strategies."
Professional skills	professional development	develop my skills as a teacher	3	"Sure, I will join other Professional Communities to develop my skills as a teacher."
	learn new strategies	learn new strategies, I've never learned about	3	"I'm going to join other PLC in the future because it has extra advantages for me to learn new strategies I've never heard about"
	use different strategies	adapt the new ways	2	"It shows for me how to use types of formative e-assessment in details"
	learn effective strategies	great effect on using strategies	4	"Of course, PLC has great effect on using different strategies"
Students learning	Change students'	create a great change	5	"It is going to create a great change in our teaching, learning and



behaviors		experience”	
Improve students' performance	Improving students' performance	4	"We can adapt the new ways and work for the best of the students."

CONCLUSION AND RECOMMENDATIONS

Some recommendations can be extracted from the results of the study. These recommendations can be summarized as follows. The first recommendation is that policy makers, supervisors, headmasters and stakeholders should adopt online professional learning communities as a dominant approach to help private teachers develop and maintain formative e-assessment strategies as it is proved to be an effective way of developing teachers professionally. The second recommendation is that private English teachers should be exposed to more sharing learning intentions and success criteria strategies so that they can use them effectively in their classrooms. The third suggestion is that private English teachers should be educated about the importance of empowering good students to explain the lesson to other students so that they master the lesson and obtain confidence and courage among their peers.

However, there are some suggestions for future research that can be proposed. Firstly, to obtain more generalizable results, the sample size should be more than thirty-eight teachers. Secondly, future research should focus on government schools as this study was merely conducted in private schools. Another suggestion is to integrate male teachers in future studies and see if the online professional learning communities have the same impact on their usage of formative e-assessment strategies. Finally, future studies should focus on cycle two and post-basic schools to obtain a better understanding of the importance of online professional learning communities in these two types of schools.



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APPENDICES

Appendix A. Items Results

No.	Items	Mean	SD	Percent
1	LISC1. Learning Outcomes are clearly shared to the students.	3.875	0.354	77.5
2	LISC2. Pupils are reminded about the links between what they are learning and the big learning picture.	4.125	0.641	82.5
3	LISC3. Child-friendly language is used to share learning outcomes with pupils.	4.250	0.707	85.0
4	LISC4. Success criteria related to learning outcomes are differentiated and shared with pupils.	3.875	0.354	77.5
5	LISC5. Pupils demonstrate that they are using success criteria while they are working.	3.750	0.707	75.0
6	QCD1. E-assessment techniques are used to facilitate class discussion (e.g., brainstorming).	4.250	0.886	85.0
7	QCD2. Questions are used to elicit pupils' prior knowledge on a topic.	4.250	0.463	85.0
8	QCD3. Pupils are encouraged to share the questioning role with the teacher during lessons.	4.250	0.707	85.0
9	QCD4. Pupils' incorrect responses are used to guide teaching and learning.	4.500	0.535	90.0
10	QCD5. Pupils can explain to others what they are learning.	3.375	0.518	67.5
11	FB1. Feedback to pupils is focused on the original learning outcome(s) and success criteria (e.g., "Today we are learning to use punctuation correctly in our writing and you used capital letters and full stop correctly in your story, well done	3.750	0.463	75.0



John”).

12	FB2. E-assessment techniques are used during lessons to help the teacher determine how well pupils understand what is being taught.	4.250	0.463	85.0
13	FB3. Diagnostic information from standardized tests is used to identify strengths and needs in teaching and learning.	4.000	0.756	80.0
14	FB4. Pupils are involved formally in providing information about their learning to their parents/guardians (e.g., portfolios or learning logs are provided online).	4.625	0.744	92.5
15	FB5. In preparing to provide pupils with feedback on their learning, the teacher consults their records of achievement against key learning intentions from previous lessons.	4.125	0.641	82.5

Note 1. LISC = Sharing learning intentions and success criteria; QCD = Questioning and classroom discussion; FB = Feedback.

Appendix B

Structured interview questions:

- 1- What does Formative E-assessment mean for you?
- 2- Do you think that Professional Learning communities have an effect on implementing Formative E-assessment strategies?
- 3- How does the Professional Learning community help you in improving your practice of Formative E-assessment strategies?
- 4- Are you going to join other Professional Learning community in the future?

Conflict of Interest

The authors declare no conflicts of interest

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