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Exploring learning-oriented assessment in EAP writing classrooms: teacher and student perspectives

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Abstract

Despite a growing interest in learning-oriented assessment in recent years, there is limited research on its implementation in language classrooms from both teacher and student perspectives, especially from an ecological lens. To address the research gap, this case study explored the implementation of learning-oriented assessment in three EAP writing classrooms, including both perceived success of and obstacles to implementation. Major data sources included interviews with teachers and students as well as classroom observation. The findings showed the different extents to which the teachers and students perceived and shaped/utilized the affordances of each dimension of learning-oriented assessment as well as the various ways in which their fields of affordances were aligned, due to micro-level, meso-level, and macro-level factors. Based on the findings, a model of learning-oriented assessment in EAP writing classrooms has been proposed and pedagogical implications have been discussed.

Keywords: Learning-oriented assessment, EAP writing, Ecological perspective, Affordances

Introduction

Assessment plays a key role in influencing students' learning. The past several decades have witnessed a shift from an emphasis on using assessment to measure students' performance (i.e., summative assessment or assessment of learning) to a focus on employing assessment to promote student learning and inform teaching (i.e., formative assessment or assessment for learning). However, this paradigm shift seems to dichotomize assessment as either summative or formative in nature. To avoid such a dichotomy, the concept of learning-oriented assessment was proposed, which refers to "assessment where a primary focus is on the potential to develop productive student learning processes" (Carless, 2014, p. 964). Learning-oriented assessment (LOA) thus foregrounds the learning aspects of assessment, regardless of whether the major purpose of assessment is formative or summative (Carless, 2015).

In line with this new conceptualization of promoting the learning aspect of assessment, there has been a growing interest in LOA in empirical research. For example, research has explored the implementation of LOA in different contexts (Carless, 2014, 2015;

Davidson & Coombe, 2022; Keppell et al., 2007; Mok et al., 2007; Russell et al., 2007). In second and foreign language classrooms, increasing attention has been paid to LOA in terms of its implementation and effectiveness (Derakhshan & Ghiasvand, 2023; Fazel & Ali, 2022; Jalilzadeh & Coombe, 2023; Kim & Kim, 2017). However, research seems to prioritize language teachers' perspectives when it comes to the implementation of LOA while ignoring student perceptions (e.g., Derakhshan & Ghiasvand, 2023; Fazel & Ali, 2022; Jalilzadeh & Coombe, 2023). There is also limited research on the use of LOA in English for Academic Purposes settings (Fazel & Ali, 2022), especially from an ecological lens (Fulmer et al., 2015; Gibson, 1986).

Adopting an ecological perspective (Fulmer et al., 2015; Gibson, 1986), this study focused on three teachers' implementation of LOA in academic writing from teacher and student perspectives, including both the perceived success and obstacles associated with the use of LOA. Teachers and students are the two most important stakeholders in assessment. It is thus crucial to understand their perceptions of assessment implementation. An ecological perspective acknowledges the importance of contextual influences on teachers' assessment practices (Fulmer et al., 2015) and the ways in which people (e.g., teachers and students) relate themselves to the classroom environment (Liu & Chao, 2017). By emphasizing contextual influences and highlighting teachers' and students' active roles in relating to their classroom context during assessment processes, this perspective may provide theoretical and pedagogical insights into how to maximize the learning potential of LOA to benefit students' learning in EAP writing classrooms.

Literature review

Learning-oriented assessment

Underscoring the central idea that all assessment should promote student learning, learning-oriented assessment contains three interrelated elements, including learning-oriented assessment tasks, development of evaluative expertise and student engagement with feedback (Carless, 2014, 2015). Carless' (2014, 2015) model of learning-oriented assessment is presented in Appendix 1 (see Fig. 1). The first element "Learning-oriented assessment tasks" highlights the importance of making assessment tasks learning-oriented. Particularly relevant to the study are two principles of task design and implementation. The first principle is that assessment tasks should be designed to spread student effort and intellectual engagement evenly across a module. In other words, learning-oriented assessment tasks should encourage students to devote their time to studying consistently across a module rather than focusing their effort toward the end of it. The second principle is that the formative and summative aspects of assessment should be balanced to enable all assessment tasks to be learning-oriented. Since assessment, including assessment innovations, serves double duty (Boud, 2000; Namaziandost et al., 2020), it is important that its summative dimension does not overshadow the formative dimension. Feedback-enabling task design such as two-part tasks and draft plus rework (Winstone & Carless, 2020) have the potential to sustain students' learning efforts and draw their attention to the formative dimension of assessment. In the context of writing, two-part tasks mean that students undertake a first task (e.g., presentation of preliminary research findings), followed by a feedback process in which they can utilize feedback to inform a second related task (e.g., incorporating feedback on presentation into

paper writing). Draft plus rework means that students receive feedback on a draft assignment and use it to improve their subsequent draft (e.g., using feedback on a previous draft to improve the current one). The second element of LOA, "Developing evaluative expertise", emphasizes the need for learners to develop evaluative expertise so that they can be lifelong learners. Evaluative expertise is essential to learning. To develop such an expertise, learners need to be actively involved in assessment activities such as peer feedback or self-assessment. Research shows that giving peer feedback is more beneficial to improving student writing than receiving it, particularly for beginning learners, probably because reviewing peers' work can enhance reviewers' ability to evaluate their own writing (Lundstrom & Baker, 2009). Learners should also understand learning goals and be given opportunities to engage with assessment criteria. The third element of LOA, "Student engagement with feedback", emphasizes learners' engagement with feedback. Students need to use feedback as feed forward for either current or future assignment. In the case of writing, students are generally more receptive to teacher feedback than peer feedback and probably are more willing to engage with teacher feedback (Chang, 2016; Yang et al., 2006; Yu & Lee, 2016).

The three elements of LOA are interrelated. For instance, the first element of learning-oriented assessment task design may impinge on the second and third elements (see the two arrows from "Learning-oriented assessment tasks" to "Developing evaluative expertise" and "Student engagement with feedback" respectively). For example, assessment design such as two-part tasks or draft-plus-rework enable students to use feedback as feed forward to improve the quality of their work (Winstone & Carless, 2020). There is also potential interplay between learners' development of evaluative expertise and their engagement with feedback (Carless, 2014), as can be seen from the double-headed arrow connecting the two components. For example, an appropriate level of evaluative expertise (e.g., a good understanding of the assessment criteria) contributes to student engagement with feedback (e.g., their understanding of feedback) while learners' engagement with feedback may also help students acquire a better understanding of the criteria and, consequently, their evaluativse judgement.

Teachers need assessment knowledge (Coombe et al., 2020). The successful implementation of LOA requires teachers to possess appropriate assessment literacy. Teachers need to have a sound understanding of assessment task design, possess a variety of strategies to develop students' self-evaluative expertise, and be familiar with various methods to promote student engagement with feedback (Carless, 2015). In addition, teachers need to develop teacher assessment literacy in practice, which means that they need to make compromises in order to reconcile tensions generated by context, knowledge, and conceptions (Xu & Brown, 2016).

Empirical research on LOA

In empirical research, modest attention has been paid to LOA. For example, its implementation has been investigated in various contexts, including online contexts, with a focus on ways that different forms of assessment contribute to learning such as learning-oriented self-assessment (Mok et al. 2007), learning-oriented peer assessment (Keppell et al. 2007), collaborative peer learning and various modes of feedback (Russell et al. 2007). Focusing on recipients of teaching awards, Carless' (2014, 2015)

research exemplified how each dimension of LOA was implemented across diverse disciplines. In the aforementioned studies, data sources such as teacher and student interviews, teacher and student reflections and feedback, and classroom observation were drawn upon to explore the implementation of LOA.

There has also been an increasing attention to LOA in language classrooms. Researchers have proposed various frameworks of learning-oriented language assessment (Hamp-Lyons, 2017; Jones & Saville, 2016; Turner & Purpura, 2016). Regardless of the frameworks proposed, the critical features of these frameworks seem to resonate with Carless' (2015) model that involves the creation and implementation of learning-focused assessment tasks, the development of self-regulated learners, and enhancement of students' performance or learning outcomes through feedback. In addition, Turner and Purpura (2016) highlighted the contextual and affective dimensions of LOA in language classrooms, reminding researchers to take into consideration the macro-level and micro-level contextual factors as well as learners' affective factors in investigating the implementation of LOA.

In language classrooms, empirical research has explored teachers' knowledge and implementation of LOA (Derakhshan & Ghiasvand, 2023; Jalilzadeh & Coombe, 2023), including its use in academic writing contexts (Fazel & Ali, 2022; Kim & Kim, 2017). In the Iranian EFL context, two studies examined teacher perceptions and implementation of LOA. For example, in addition to perceived benefits, teachers identified time budget, large classes and a lack of teacher knowledge and training as obstacles to applying LOA (Derakhshan & Ghiasvand, 2023). Jalilzadeh and Coombe's (2023) study found teacher-related (e.g., lack of knowledge of LOA practice), learner-related (e.g., learners' reluctance to engage in learning) and institute-related constraints (e.g., institute's emphasis on summative assessment).

In the context of an academic writing course, Kim and Kim's (2017) qualitative study explored the application of LOA to an integrated reading-to-write task based on student writing, teacher feedback and student and teacher interview data. While the dimension of peer assessment was missing, the learning-oriented nature of the reading-to-write task and instructor feedback contributed to the student participants' improvement of future writing.

Employing interview data, Fazel and Ali's (2022) qualitative cross-contextual study examined EAP teachers' knowledge, use, and perceptions of LOA in Canada and Malaysia. The two groups of EAP practitioners reported familiarity with LOA, albeit mainly at the conceptual level. In terms of its implementation, both groups showed an under-utilization of assessment tasks as learning tasks, but student involvement in assessment was more frequently implemented by Canadian teachers. While both groups mentioned that they provided feedback to promote student learning, only 1 out of 20 teachers reported giving forward-looking feedback, one of the key features of learning-oriented assessment. Despite the benefits of LOA as identified by the teachers, they also reported challenges to the implementation of LOA, including having limited control over assessment design, the dominant examination-driven culture (especially for the Malaysian teachers), and students' mindsets and attitudes that are not consistent with a learner-centered assessment paradigm underpinning LOA.

The review above shows that research mainly focused on the implementation of LOA in different contexts and its effectiveness. However, there seems to be a focus on successful cases of implementation (Carless, 2014, 2015, Mok et al. 2007; Keppell et al. 2007; Russell et al. 2007; Kim & Kim, 2017) and relative less attention has been paid to the challenges encountered by teachers and students in using LOA. In the context of language classrooms, the studies investigating the obstacles to implementing LOA placed an emphasis on teacher perspectives but did not include student perspectives (e.g., Derakhshan & Ghiasvand, 2023; Fazel & Ali, 2022; Jalilzadeh & Coombe, 2023). There is also limited research on LOA in EAP contexts (Fazel & Ali, 2022). To address the research gaps, this study aimed to investigate the implementation of LOA from both teacher and student perspectives in the context of academic writing classrooms, with a dual focus on the successful aspects of implementation and challenges encountered by teachers. In particular, this study employed an ecological perspective to understand the implementation of LOA from the views of both teachers and students, the two most important stakeholders in assessment.

An ecological perspective on assessment

An ecological perspective on assessment acknowledges that teachers' assessment practices do not take place in vacuum, but are influenced by various contextual factors. Teachers' assessment practices are subject to three distinct but interacting levels of contextual factors, including macro-level factors (e.g., national and cultural influences), meso-level factors (e.g., school factors), and micro-level factors (e.g., factors related to the classroom, students, and teachers) (Fulmer et al., 2015). As argued by Turner and Purpura (2016), the implementation of LOA in language classrooms needs to take into consideration the contextual dimension such as the socio-political forces that shape educational cultures and sociocultural norms of classrooms as well as the micro-level factors including teacher and student attributes.

In the micro-level context, the language classroom ecosystem is a site containing different levels of affordances for both teachers and students. Affordances refer to perceived opportunities for action provided by the environment or functionally significant properties of the environment perceived by an actor (Gibson, 1986). It emerges when the characteristics of an individual (e.g., personal intentions and needs) match with environmental features (Kyttä, 2004). There are four levels of affordances: potential, perceived, utilized, and shaped affordances (Kyttä, 2004). Potential affordances exist but are not necessarily perceived by an individual. Affordances may be perceived by an individual but may not be utilized (i.e., perceived affordances). Affordances are utilized when they result in actions (i.e., utilized affordances). Shaped affordances emerge when an individual actively shapes the environment to create new affordances or change existing ones, which may become available to other people. Affordances are first perceived and then possibly used or shaped, but individual characteristics, social and cultural factors influence which affordances can be perceived, utilized, or shaped (Kyttä, 2004).

In the language classroom ecosystem, both teachers and students perceive affordances and take subsequent actions. Teachers play a critical role in designing an assessment environment conducive to students' learning (Carless & Winstone, 2020). From an ecological perspective (Gibson, 1986), this means that teachers should be able to perceive

and shape learning affordances related to assessment activities based on various classroom resources (Liu & Chao, 2017). On the other hand, learners may also perceive and utilize learning affordances of assessment activities and related classroom resources, but their perceptions or utilizations of such affordances may be promoted or restricted by teachers (Kordt, 2018). Based on their perceptions and subsequent actions (e.g., shaping or utilization of classroom affordances), teachers and students may possess respective fields of affordances, that is, "the relevant possibilities for action that a particular individual is responsive to in a concrete situation" (de Haan et al., 2013, p. 7). The respective fields of affordances may include the perceived and shaped/utilized affordances, but not potential affordances.

Taken together, an ecological perspective (Fulmer et al., 2015; Gibson, 1986) foregrounds the contextual dimension of LOA (Turner & Purpura, 2016) and makes it possible to investigate its implementation based on the different levels of learning affordances of LOA (i.e., learning potential afforded by LOA) from both teacher and student perspectives. Given that perception is the prerequisite for shaping or utilizing affordances (Kyttä, 2004), it is crucial to gauge teacher and student perceptions of learning affordances and subsequent actions associated with each dimension of LOA to gain a refined understanding of its implementation. It is also important to bear in mind that the perception, utilization, and shaping of affordances are subject to both individual factors and contextual factors (e.g., macro-level and meso-level factors). Focusing on three teachers' implementation of LOA in their academic writing classrooms, this study was guided by the following research questions:

> RQ1: How did the teacher participants perceive and shape the learning affordances with respect to each dimension of learning-oriented assessment?
> RQ2: How did the student participants perceive and utilize the learning affordances with respect to each dimension of learning-oriented assessment?

The study

Methodology

A case study approach was adopted to explore three teachers' implementation of LOA. Given that case study can provide an in-depth and contextualized understanding of contemporary real-life phenomena (Creswell, 2013), this approach is particularly useful to understanding teachers' and students' perceptions and shaping/utilization of learning affordances of LOA in context.

Context and participants

This paper focused on the implementation of LOA in three teachers' academic writing classrooms. The three teachers, Jane, Merry, and Kate, came from a private university in Hong Kong and they all reported the adoption of learning-oriented assessment in their 14-week academic writing modules. Jane's course was a compulsory module for year one non-English majors, and Merry's and Kate's courses were compulsory for year one English major students. Table 1 shows the assessment framework in each teacher's module. The major assignments have been boldfaced. All the three teachers used

Table 1 Assessment framework in the three teachers' modules

Teacher	Assessment framework adopted	Weighting
Jane	Continuous assessment	15%
	Informative essay	20%
	Argumentative essay	40%
	Group presentation on features of academic writing	15%
	Participation (including participation in two peer feedback activities)	10%
Merry	**Secondary research paper**	30%
	Outline related to secondary research paper	5%
	First draft related to secondary research paper	5%
	Primary research paper	40%
	Outline related to primary research paper	5%
	First draft related to primary research paper	5%
	Participation (including participation in teacher-student conferencing and two peer feedback activities)	10%
Kate	**Secondary research paper**	30%
	Outline related to secondary research paper	5%
	Presentation and self-reflection related to secondary research paper based on an observation of peers' presentations	5%
	Primary research paper	40%
	Proposal related to primary research paper	5%
	Presentation and self-reflection related to primary research paper based on an observation of peers' presentations	5%
	Participation (including participation in two peer feedback activities)	10%

feedback-enabling assessment task design (Winstone & Carless, 2020), including two-part tasks and draft plus rework. Jane adopted two-part tasks and draft plus rework in her class. She provided feedback on the continuous assessment, which was similar to the major assignments in that the former focused on a certain aspect of the latter one at a time (e.g., coherence, introduction, and conclusion). Her feedback on the continuous assessment could thus be useful to the writing of the major assignments. For each of the major assignments, Jane also organized one peer feedback activity so that her students could utilize peer comments to improve their first drafts. Merry mainly relied on draft plus rework design in her classroom. Her students needed to write outlines/proposals and first drafts for the major assignments. She provided written feedback on the outlines/first drafts and arranged a peer feedback activity for each major assignment. Her students also needed to attend a teacher-student conference to discuss their first drafts and relevant feedback with her. Kate adopted draft plus rework and two-part tasks in her class, which was conducted online due to Covid 19. Her students needed to write outlines/proposals for the major assignments, which Kate would provide feedback on so that they could improve their subsequent writing. The students also needed to present online the preliminary findings for each major assignment, provide and receive written peer comments and reflect on what they could learn from their peers' presentations and what they should avoid to improve their final drafts. The three teachers also shared with their students the assessment criteria for the writing assignments and used exemplars to familiarize their students with qualities of good academic writing.

The three teachers were selected for the investigation of the implementation of LOA because they all reported its use in their writing classrooms. Jane, Merry, and Kate had

2.5, 8, and 1 year(s) of teaching experience respectively at the time of data collection. Jane and Kate had Master's degrees in Comparative and General Literature and Applied Linguistics respectively while Merry had a PhD. Degree in English language education. There were about 20 students in each writing class. The students were aged around 18 and had different levels of writing proficiency. Both the teachers and students agreed to participate in the research after they were informed of its purpose. Pseudonyms were used to ensure anonymity.

Data collection and data analysis

Multiple sources of data were used for data collection. As perceived, utilized, and shaped affordances may be revealed through an individual's self-reporting or actions (Kyttä, 2004), both classroom observations and teacher and student interviews were used to collect data. Classroom observations were conducted in each teacher's classroom, with a focus on teacher implementation of each dimension of LOA and student participation in LOA-related activities. Observation notes were jotted down and developed into full notes later. Three post-observation interviews were conducted with each teacher in English to understand her perceptions and shaping of learning affordances related to each dimension of LOA. Each interview lasted about 30 min and was recorded. Both in the middle and near the end of the module, focus group interviews were held with a group of six to seven students in each teacher's course to gauge their perceptions and utilization of learning affordances related to each dimension of LOA. Each focus group interview lasted for about one hour and was recorded. The student participants mainly used English in the group interviews but they were also allowed to use Cantonese, their mother tongue, if necessary. Classroom observation data, whenever appropriate, were also utilized to shed light on the students' utilization of learning affordances. Teaching documents such as module outlines and peer feedback forms were employed as supplementary data sources to gain a deeper understanding of the teacher's instructional and assessment practices.

For data analysis, a qualitative data analysis scheme composed of data reduction, data display, and conclusion drawing and verification (Miles et al., 2014) was employed. To answer the first research question, teacher interview data were transcribed and checked for accuracy. Data reduction was performed by coding the teacher interview data with a focus on the implementation of the three dimensions of LOA. For each dimension, the interview data were further coded regarding teacher perception, shaping, promotion (or restriction), or reshaping of the learning affordances of LOA. In data coding, the researcher was also open to new codes based on empirical data and literature. The coded data were then displayed in a table, allowing the development of emerging themes both within case and across cases. For example, one theme in Jane's case is that she perceived the affordance associated with the marks of continuous assessment, shaped, and promoted such an affordance in her classroom. Based on the emerging themes, case narratives were constructed. After within case analysis, cross-case comparison was then conducted to identify the similarities and differences in the three teachers' perceptions and shaping of learning affordances related to each dimension of LOA. For example, one theme is that the three teachers perceived differently the learning affordance of peer feedback activities in developing students' evaluative expertise. Conclusions about the

three teacher's perceptions and shaping of the learning affordances were then drawn and verified through member-checking. For triangulation, classroom observation data were analyzed in a similar way. To answer the second research question, the student focus group interview data, and when appropriate, classroom observation data were also analyzed qualitatively (Miles et al., 2014).

To ensure the trustworthiness of data analysis, member-checking interviews were conducted. An extra coder was also invited to code a subset of the data, reaching 91% of inter-coder agreement after disagreements were resolved after discussion.

Results

The findings were organized according to the three dimensions of LOA. The teacher and student perceptions and shaping/utilization of learning affordances of each dimension were reported below.

Learning-oriented assessment tasks

Two principles of task design that are particularly relevant to this paper is that learning-oriented assessment tasks should spread student effort and engagement across a module and that they should be designed to balance the formative and summative aspects of assessment (Carless, 2015). The three teachers reported the rationale behind the assessment task design in their courses. Jane explained that she mainly relied on continuous assessment to spread learner efforts throughout the course. She expected the continuous assessment to make her students work hard on a series of assessment tasks to achieve good marks: "As there are ten group-based continuous assessment tasks and I only count the best two plus the APA quiz, the students will be more motivated to attend class regularly and to try their best to get good scores". This quote shows that Jane perceived that the affordance of the continuous assessment was to spread students' engagement through the module by making them focus more on the summative aspect of the assessment (i.e., good scores). In class, she was observed to promote such affordance by explicitly mentioning the importance of obtaining good marks for the continuous assessment: "Don't worry if you have not got good scores yet. We have ten continuous assessment tasks in total, so you still have chances to get higher marks".

Interview data showed that Jane's students perceived and utilized the shaped affordance by making efforts to achieve good performance on the continuous assessment tasks. For example, Sue commented:

> *Since the two best performances count towards the total score of the continuous assessment in addition to the APA quiz, I just try my best to work on all the assessment tasks to get good marks no matter whether they are easy or difficult.*

Classroom observation showed that the students actively participated in the group-based continuous assessment by discussing with one another how to conduct it and checking their answers before submission. However, some students also perceived that teacher feedback on different continuous assessment tasks enabled them to know how well (or poorly) they handled different aspects of writing (e.g., introduction and coherence) one at a time. Such feedback motivated them to improve the

various aspects of their major assignments even after the completion of the continuous assessment. For instance, Yankie commented:

> *Every time teacher feedback on the continuous assessment focuses on one aspect of writing such as coherence or APA citation style, so this kind of focused feedback lets me know what my strengths and weaknesses are. Since the continuous assessment and major assignments are similar, I'm motivated to write and I'll continue to improve my major assignments based on this feedback.*

In Merry's and Kate's courses, the writing tasks were designed to enable the learners to experience the writing process of planning, drafting, giving and receiving feedback, and revision. The students needed to produce various documents throughout the writing process (e.g., outline/proposal, first draft, and revised draft in Merry's module and outline/proposal, presentation of preliminary findings and self-reflection, and revised draft in Kate's module). Although both teachers assigned a small percentage of the total grade to the "mini tasks" that contributed to the completion of the major assignments (e.g., 5 marks for outline/proposal, 5 marks for first drafts, or 5 marks for presentation of preliminary findings and subsequent reflection), they emphasized in the interviews that the assignment design was intended to help students work steadily towards the final version of their papers by experiencing the writing process. For example, Merry mentioned:

> *Although some marks are awarded to the completion of "mini tasks" such as outline/proposal and first drafts, I want my students to pay more attention to the fact that writing is not a one shot job. They need to complete their writing step by step through planning, drafting, and revising. Feedback is the key to driving their writing.*

This quote shows that Merry perceived the affordance of the task design to involve learners in continuously refining their writing based on feedback, that is, the formative dimension of assessment. Kate also expressed similar ideas regarding task design of her module. Classroom observation showed that both Merry and Kate promoted the affordance of the assessment design of using a series of "mini tasks" as opportunities to receive teacher and/or peer feedback, leading to improved writing. For example, Kate mentioned in class:

> *Although I assign 5 marks to each small task such as outline or presentation on your preliminary findings, I hope that marks are not the reason for you to complete these tasks. Actually the small tasks are for you to have a better understanding of the writing process, in which you may give and receive feedback and produce multiple drafts to improve your writing quality.*

Merry was also observed to emphasize the learning affordance of the "mini tasks" while downplaying the marks attached to them during teaching.

Student interview data revealed that some of the learners perceived and utilized the shaped affordance. For example, Helen, one of Merry's students, stated: "In this module, I can write in a more systematical way by producing an outline, first draft and final draft…I don't think we can produce the best final essay without completing

the small assignments and getting any feedback." Kate's students also appreciated the opportunities for them to produce a series of "mini" tasks and accompanying feedback for writing improvement.

Developing evaluative expertise

Regarding the development of evaluative expertise, all the three teachers acknowledged the importance of familiarizing their students with the assessment criteria. Classroom observation showed that all of them explained features of good academic writing, together with the discussion of exemplars. The three teachers also utilized peer feedback activities, but there was variation in the shaped and perceived affordances pertaining to the development of evaluative expertise across the teachers.

Jane thought that peer feedback activities can mainly enable weak students to receive useful feedback to improve their writing, but she was doubtful as to how students, especially weak ones can enhance their evaluative expertise: "Some of my students are quite weak and some of them don't even know what comments to give to their peers." This quote suggests that Jane did not recognize the potential affordance of peer feedback activities in helping weak learners become better evaluators. Classroom observation also showed that Jane mainly emphasized the usefulness of receiving feedback for writing improvement rather than how giving peer feedback may be useful to developing evaluative expertise.

Jane's students were not aware of the potential of giving peer comments to develop their evaluative capacities. Some of them were also worried that they were not able to evaluate their peers or themselves. For example, Michael commented that he could only give very general peer feedback. Sally mentioned: "I prefer to get peer feedback because I do not know what are the strengths and weaknesses of my own writing." Classroom observation showed that some students quickly read through their peers' writing and did not leave detailed comments in the peer feedback form.

In contrast, Merry considered that peer feedback could be used to promote students' evaluative expertise. She explained the rationale:

In my class there are two peer feedback activities. For each activity, I design a peer feedback form so that my students can apply the assessment criteria in the form to evaluating their peers' drafts. They may become familiar with the criteria when they do the peer evaluation, and they will use the criteria for self-evaluation.

Merry further described the positive change that she observed in her students' evaluative expertise. She stated:

After the first peer feedback activity, I asked my students about their opinions of it. They complained about the form. They said that there were some terms that they did not understand and that there was only space for them to tick whether the writer achieved a certain criterion, which made them feel like they were teachers judging the work. So before the second peer feedback activity, I tried to make sure that my students understood the terms in the assessment criteria such as 'contributions of the study' when teaching these concepts. I also revised the peer feedback form to leave enough space for my students to give peer feedback according to each criterion. I noticed that many students were able to provide useful feedback.

The quote shows that while Merry shaped limited affordance of the first peer feedback activity, she was able to reshape the affordance of the second peer feedback activity based on student opinions.

Student interview data showed that while the learners experienced difficulty in evaluating peers' writing for the first peer feedback activity, they were able to perceive and use the shaped affordance in the second peer feedback activity. For instance, Mary commented:

> *The meaning of some terms in the first form such as 'coherence' was not clear to me and also it was like a teacher to mark student essay, so I didn't know how to evaluate my peer's writing. The second form was much clearer and it also involved our suggestions to our peers, so it was easier to give peer feedback.*

Classroom observation showed that the students did not leave many comments on the first peer feedback form, but they wrote detailed comments on the second one.

Kate's course was conducted online due to COVID-19, and she explained the affordance of online peer feedback:

> *Each student can present and share with their classmates online the preliminary findings of the research project on a self-chosen topic. I have designed a form for my students to record both the peer comments to be given to the presenters and their self-reflections. The presenters can receive useful feedback, and their peer audience members can reflect on what to learn from the presentations and what to avoid. This kind of reflection can help them identify the strengths and weaknesses of their own papers.*

As can be seen from this quote, Kate recognized the affordances of peer feedback in facilitating both the receipt of useful feedback for the presenters and the development of self-evaluative capacities for the peer audience members.

Student interviews showed that the students perceived and utilized the shaped affordances of peer feedback in Kate's class. They particularly highlighted the advantages of doing self-reflection based on observations of peers' presentations. For instance, Lily commented:

> *When I compare my own presentation with my peers', I can see similarities such as the overall structure. But I can also see differences such as the kind of evidence used by my peer. My classmate has used a lot of updated references, so I think I can improve this aspect, too. Later I have added more references to my paper.*

However, Kate also mentioned the problem of online peer feedback. As she had limited knowledge of using Microsoft Teams, the software for online teaching as prescribed by her university, she did not know how to assign her students to different discussion groups so that they could also have online discussions. She explained:

> *Students already felt very lonely when the lessons were conducted online, so it would be nice if we could put them into different online chat groups and they would be more willing to discuss with their peers the strengths and weaknesses of the presen-*

tations or to seek or provide clarification of peer comments. But since I didn't know how to create online chat groups in Teams and it seemed very complicated to do so, I just gave up and asked my students to provide written peer feedback and self-reflection in a form instead. I wish our university could conduct some workshops to teach us how to use Teams to engage students.

This quote reflected one of the obstacles to using online peer feedback to enhance students' evaluative capacities. Due to limited IT knowledge and a lack of support from the university, Kate could only perceive the affordance of making her students more engaged in evaluative activities such as peer feedback, but she was not able to shape such an affordance for her students.

Kate's students commented that they would be more motivated to participate in the online peer feedback activities if they could talk to their classmates synchronously. For example, David stated:

I'm not sure if Microsoft Teams has the function of creating chat groups. If yes, we will be more motivated to take part in peer feedback activities because it is more fun to talk with our classmates about their presentations and ask questions.

This quote indicated students' uncertainty regarding the affordance of Teams in enabling them to communicate synchronously online, which would make them more motivated to participate in peer feedback activities.

Feedback as feed forward

In addition to organizing peer feedback activities, the three teachers provided teacher feedback on students' writing. Consistent with previous research on students' receptivity to teacher feedback when both teacher and peer feedback is available (Chang, 2016; Yang et al., 2006; Yu & Lee, 2016), the student participants emphasized the affordances of teacher feedback for revision rather than peer comments. The focus of this section is thus on the affordance of teacher feedback.

Jane provided teacher feedback on the continuous assessment and explained its affordance in relation to the major assignments:

Since each continuous assessment task targets one specific aspect of academic writing such as introduction, conclusion, and coherence, teacher feedback on each task is quite relevant for the major assignments. This kind of teacher feedback is likely to be used by students to improve their major assignments.

This quote shows that Jane acknowledged the affordance of teacher feedback on the continuous assessment, which could be used to feed forward into the major assignments. In her classroom teaching, Jane also promoted the affordance of her feedback. She told her students:

After you get my feedback on the continuous assessment task, don't just take a look at it and that's all. Think about how you can use it to improve the major assignments. This is because each continuous assessment task is related to one

particular aspect of academic writing. Today we talked about how to write a good introduction. In my feedback I pointed out some problems such as a lack of thesis statement or irrelevant background information. Do you see how my feedback is relevant to the major assignments? Don't hesitate to use it to improve your writing!

Student interview data showed that Jane's students perceived and used the shaped affordance of teacher feedback. For instance, Anna mentioned:

Jane's feedback on the continuous assessment was very useful for the major assignments. For example, she pointed out that I didn't have a clear thesis statement in the continuous assessment task of writing an introduction. I remembered the importance of having a clear thesis statement and made sure that there was a very clear one in my informative essay.

Merry provided written feedback on the first drafts of student writing and also conducted teacher-student consultation. She explained:

I not only gave written feedback on the students' first drafts, I also talked to them face-to-face about their problems. I think my written feedback may be easier to understand and to use if I also include teacher oral feedback. My students can also feel free to ask questions.

However, she pointed out a typical problem with the teacher-student conversation:

The problem with face-to-face consultation was that it was just one way. I just kept talking and talking. A majority of the students just kept nodding their heads without saying anything, so I assumed that they understood. But in their final drafts I did not see that they used a lot of my feedback. In the consultation only a small number of students responded to my questions or took the initiative to ask questions. They addressed my feedback to a great extent in their writing. It would be nice if all the students could be active.

This quote suggested that Merry perceived and shaped the affordance of teacher-student consultation, but a majority of students did not utilize this affordance, as can be seen from their silent reactions and limited revisions as described by Merry.

Student interview data showed that the silent students perceived the learning opportunity of having a consultation with their teacher, but did not utilize this affordance. For example, Cathy mentioned:

Since we were little we have been taught to show respect to our teachers because they know much more than us, so I tended to agree with whatever the teacher said about my writing. I knew that the consultation was a good opportunity for me to ask her about the meaning of some of her feedback or my writing, but it was weird to ask.

Classroom observation showed that many of Merry's students just nodded their heads during the consultation and they did not dare to have eye contact with Merry.

Kate gave teacher feedback on her students' outlines and believed that such feedback could guide their writing of the first draft. She stated: "By giving feedback on my

students' outlines, I can make sure that they were on the right track. Otherwise some students would make serious mistakes. For example, they may get off topic." However, she was frustrated because some students did not use a lot of her feedback in writing the first draft. She complained:

> *I read each outline and gave my feedback carefully. I believed that my students would benefit from teacher feedback. I can see that some students did incorporate my feedback into their writing, but I was surprised to see that some other students just ignored my feedback. I didn't expect to see such a great difference in feedback use and really didn't know what to do.*

Student interview data revealed that the students who were not aware of the usefulness of teacher feedback were less motivated or weak students who did not know how to implement teacher feedback. For instance, Tom explained: "I'm not really into academic writing, so I just want to get the task done and I don't bother to read teacher feedback." Susan mentioned: "I'm weak at academic writing, and sometimes I don't know how to use teacher feedback. For example, the teacher pointed out that my writing style was not formal, but I don't know how to make my writing more formal." Student interview data indicated that Kate shaped the learning affordance of teacher feedback for her students, but learner factors such as motivation and writing proficiency prevented certain students from perceiving and thus utilizing this learning affordance.

Discussion

This study has sought to explore three writing teachers' and their students' perceptions of the learning affordances of LOA and subsequent actions (e.g., shaping or utilization of affordances) as a basis for understanding its implementation in academic writing classrooms. The teachers' and students' perceptions and actions were clustered according to the three elements of LOA, including learning-oriented assessment tasks, development of student evaluative expertise, and student engagement with feedback. Based on the findings, the study proposed a model of learning-oriented assessment in EAP writing classrooms, which was developed from Carless' (2015) model. The proposed model is discussed below.

The model (Fig. 2 in Appendix 2) depicts teacher and students in the writing classroom in which LOA is implemented along the three dimensions and accompanying classroom resources, including learning-oriented assessment tasks in EAP writing classrooms, enhancement of student writers' evaluative expertise, and student writers' engagement with feedback. The teacher performs actions such as perceiving, shaping, promoting/ restricting, reflecting on, reperceiving, and reshaping classroom affordances (see the box showing teacher actions) to create his or her field of affordances related to each dimension of LOA (see the oval with the black outline connected to teacher actions). Similarly, the students perform actions such as perceiving and utilizing classroom affordances (see the box showing student actions) to create their own field of affordance related to each dimension of LOA (see the oval with yellow outline connected to student actions). Students may also share their perception and use of these affordances with the teacher.

Teacher and students co-construct the relationship between their fields of affordances based on various ways of perceiving and utilizing classroom affordances, resulting in the overlapping and non-overlapping areas of the two fields of affordances. For example, the overlapping area of the two fields of affordances includes the learning affordances shaped by the teacher and those utilized or only perceived (but not utilized) by the students respectively (see Af1 or 5 respectively). The learning affordances that are within the teacher's field of affordance but beyond that of the students' are either affordances that were perceived by the teacher but not shaped (see Af2) or shaped affordances that were neither perceived nor utilized by the students (see Af6). The learning affordances that are within the students' fields of affordances but beyond that of the teacher's are the affordances that were not shaped by the teacher but that were perceived or utilized by the students (see Af4). The classroom ecosystem may also contain potential affordances that neither the teacher nor students can perceive (see Af3). Specifically, there is a bi-directional relationship between teacher's and students' perceptions and actions (see arrows 1 and 2), leading to the alignment between the fields of affordances connected to these actions (see the overlapping areas). The classroom ecosystem is also situated within the broader meso and macro contexts. This means that the shaping, perception, and utilization of affordances may be subject to factors beyond the immediate classroom setting. The teacher's and students' fields of affordances will be discussed below according to each dimension of LOA.

Learning-oriented assessment tasks in EAP writing classrooms

The two principles of designing learning-oriented assessment tasks that are particularly relevant to the paper are that (1) assessment tasks should be designed to spread students' efforts and engagement throughout a module and that (2) assessment tasks should be designed to balance the summative and formative aspects of assessment. The findings show that Jane mainly perceived and shaped the affordance of spreading her students' efforts across a module through the task design of a series of marked continuous assessment tasks, emphasizing the summative rather than formative aspect of assessment. Her students perceived and utilized the affordance as Jane intended. The convergence in Jane's and her students' perceptions and shaping/utilization of the affordance related to the marks of the continuous assessment (see Af1) was probably due to the influence of her perception, shaping and promotion of this affordance on her students' perception and utilization of the same affordance (see arrow 1).

However, some of Jane's students also perceived and utilized the unintended affordance of teacher feedback on the continuous assessment to fuel their engagement with the major assignments. The divergence in Jane's and her students' perceptions and shaping/utilization of such an affordance indicated that Jane demonstrated affordance blindness (Kordt, 2018), making the motivational aspect of teacher feedback on the continuous assessment a potential affordance (Kyttä, 2004) to her (see Af4). The classroom affordance of a series of marked continuous assessment tasks foregrounded the summative dimension of assessment, which may develop extrinsic motivation for task engagement (Harlen & Crick, 2002), while the affordance of teacher feedback on the continuous

assessment was related to the formative dimension of assessment, which may develop intrinsic motivation for task engagement (Shute, 2008). Although both types of motivation are common in tertiary students, the latter is more desirable to sustain students' learning efforts (Biggs & Tang, 2011). Jane's case suggested the difficulty for her to perceive and shape the affordance of teacher feedback on the continuous assessment to underscore the formative dimension of assessment when it came to fueling students' writing efforts, probably because she lacked knowledge concerning the motivational aspect of teacher feedback. Teacher lack of knowledge related to LOA has been identified as one of the constraints on the use of LOA (Derakhshan & Ghiasvand, 2023; Jalilzadeh & Coombe, 2023). To make up for such missing knowledge, Jane may consider inviting her students to share their perceptions and utilization of affordances related to the assessment tasks. This information may serve as a basis for her to gain knowledge of the affective dimension of teacher feedback, reflect on its affordance and reshape new affordances for her students (see arrow 2) to emphasize the formative dimension in an attempt to foster students' task engagement.

Different from Jane, both Merry and Kate perceived and shaped the learning affordances of sustaining their students' writing efforts through using feedback-enabling task design (Winstone & Carless, 2020) to highlight the formative dimension of assessment. That is, assessment task design such as draft plus rework and two part tasks gave their students opportunities to make steady efforts to complete their writing based on feedback. Their students also perceived and utilized the learning affordances. Notably, although marks were assigned to the "mini tasks" (e.g., outline, first draft, student presentation and subsequent self-reflection), the students made efforts to produce quality writing based on feedback rather than to obtain good marks like Jane's students. When both grades and feedback are provided on assessment tasks, students may pay more attention to the former (Yorke, 2007). However, probably because Merry and Kate perceived, shaped, and promoted the learning potential of their feedback-enabling task designs in the classrooms, their students were more aware of the formative aspect of the assessment and experienced the multiple drafting process to improve their writing (see arrow 1) and there was a convergence between the teacher's and students' fields of affordances related to the learning-oriented assessment tasks (see Af1).

In short, the contrast in Jane's and the other two teachers' perceptions and shaping of learning affordances related to the assessment tasks suggested the need for writing teachers to foreground the formative dimensions of assessment when they employ assessment task design to spread students' efforts across the whole module. They should be able to perceive and shape the affordance of assessment tasks in a feedback-enabling way based on relevant knowledge. Notably, although in all the three cases the teachers' and students' fields of affordances were aligned, as can be seen from the influence of the teachers' perception, promotion and shaping of classroom affordances related to assessment task design on their students' perceptions and actions, such an influence may be either positive (as in the cases of Merry and Kate) or negative (as in the case of Jane). When the influence is negative, teachers like Jane need to reflect on their perception and shaping of classroom affordance based on students' perceptions

and actions and then reshape classroom affordance to align the two fields of affordances in a positive way.

Development of student writers' evaluative expertise

Different from Kim and Kim's (2017) finding that the teacher participant did not involve students in assessment by organizing peer feedback activities, all the three teachers in this study included peer feedback activities in their writing classrooms. However, except Merry, Jane and Kate encountered difficulties in either perceiving or shaping the learning affordance of peer feedback activities in terms of developing student writers' evaluative expertise. For example, Jane considered that the learning affordance of peer feedback was related only to the receipt of useful peer comments for writing improvement. She thus showed affordance blindness (Kordt, 2018) regarding the development of evaluative capacities through enabling her students to give peer comments, especially weak students (see Af3). Consequently, her students also did not perceive such a learning affordance (see Af3) and remained to be worried about their evaluative ability. Evaluative capacities are crucial to student writers (Hawe & Dixon, 2014). Student reviewers can develop their self-evaluative capacities and improve their writing through giving peer feedback, including low proficiency students (Lundstrom & Baker, 2009). However, without assessment knowledge related to the second dimension of LOA (Carless, 2015) such as how to use peer feedback activities to develop weak students' ability to evaluate, it is difficult for Jane to perceive and shape appropriate learning affordance for her students to perceive and use despite the adoption of peer feedback in her classroom.

Different from Jane, Kate perceived the learning affordance of giving peer comments and subsequent self-reflection in enhancing students' ability to self-evaluate, and she was able to shape such an affordance for her students to perceive and utilize through the asynchronous mode of peer feedback. Although she also perceived the affordance of synchronous mode of peer feedback in making her students more motivated to participate in peer feedback, she was not able to shape it due to limited IT knowledge and a lack of support from her university. Individual characteristics, social and cultural factors influence which affordances can be shaped (Kyttä, 2004). Kate's case showed that individual characteristic such as limited IT knowledge, coupled with the institutional factor or a meso-level factor (Fulmer et al., 2015) of a lack of university-level IT training, prevented her from shaping affordance to engage her students' participation in peer feedback despite the perception of such an affordance (see Af2). When implementing LOA, it is important for teachers to pay attention to the affective dimension that influences how learners experience and engage in the assessment process (Turner & Purpura, 2016). This study showed that especially in the context of online LOA, teachers' IT knowledge should be regarded as part of the assessment knowledge related to LOA for the creation of appropriate affordance to address the affective dimension of assessment and that the development of such knowledge should be supported at the institutional level.

Merry also perceived and shaped the learning affordance of developing evaluative expertise through peer feedback activities. Although for the first peer feedback activity

the learning affordance she shaped for her students, especially the affordance of the peer feedback form, was considered to be difficult to use and thus limited, for the second peer feedback activity she was able to reshape the affordance of the peer feedback form based on student opinions. The students thus perceived and utilized the reshaped affordance to give peer comments and develop their evaluative expertise (see Af1). In particular, as affordances emerge from a match between characteristics of an individual and environmental features (Kyttä, 2004), the positive change in the students' perception and use of affordance could be mainly attributed to the teacher's change of the "environmental features" of the classroom resource (i.e., the peer feedback form) to cater to the students' needs (i.e., a clearer understanding of the assessment criteria and adopting the role of a peer reader rather than a teacher marker). Overall, Merry's case illustrated the bi-directional relationship between the teacher's and students' perceptions and actions to align positively the fields of affordances they possessed. On the one hand, the teacher perceived and created learning affordance for his or her students to perceive and use (see arrow 1), as can be seen from what Merry did for the first peer feedback activity. On the other hand, the teacher invited the students to share with her their perceptions and utilizations of the learning affordances as a basis for reshaping more appropriate affordances for the students, as can be seen from what she did to change the feedback form for the second peer feedback activity (see arrow 2). In other words, learning affordances need to be shaped and reshaped to align appropriately the teacher's and students' fields of affordances.

In short, Jane's and Kate's cases revealed the difficulties in using peer feedback activities to develop student writers' evaluative expertise, as illustrated by the different levels of affordances in the two teachers' cases (i.e., Af3 and Af2). These difficulties resulted from both micro-level factors (e.g., teacher factors such as a lack of assessment knowledge and IT knowledge) and meso-level factors (e.g., a lack of institutional support). As a result, it is difficult for the teachers to shape affordance for their students to perceive and utilize and it is difficult to align the teacher's and students' fields of affordances. On the other hand, Merry's case suggested that the perception and shaping of learning affordance associated with developing evaluative expertise through peer feedback should be a dynamic process, which involves the teacher's (re)perception and (re)shaping of classroom affordances based on students' perceptions and actions, so that their fields of affordances can be aligned appropriately.

Student writers' engagement with feedback

All the three teachers paid attention to student engagement with teacher feedback on writing. Jane was able to perceive, shape and promote the learning affordance of teacher feedback on the continuous assessment to feed forward into the major assignments. Her students also perceived and utilized the shaped learning affordance, so the teacher's and students' fields of affordances were aligned (see Af1) in a positive way. The positive influence of teacher perception and actions on the students' perception and actions may be due to Jane's coordination of various classroom resources to create the potential of teacher feedback as feed forward. Given that the continuous assessment and the major

assignments were similar in that the former focused on one aspect of the major assignments at a time (e.g., introduction, conclusion, and coherence), the task requirements and assessment criteria related to these two types of assessment were also similar. Such similarity made it more likely for the students to perceive the relevance of teacher feedback on the continuous assessment and use it to improve the major assignment. This is because the relatedness of task requirements and consistency of assessment standards across assessment tasks affect the potential of feedback being used as feedforward (Vardi, 2013). Fazel and Ali' s (2022) finding showed that the use of forward-looking feedback was overlooked by most of the participants. Jane's case in this study indicated that the affordance of forward-looking teacher feedback for student engagement in LOA depended on teacher's acknowledgement of the interrelatedness of various resources in the classroom ecosystem (Liu & Chao, 2017) and coordination of these resources for affordance creation rather than the single resource of teacher feedback.

Different from Jane, Merry encountered difficulties in bringing into full potential the learning affordance of teacher feedback for a majority of her students. Merry perceived and shaped the learning affordance of teacher student conference by arranging face-to-face talk with her students about their writing and accompanying feedback. She hoped that her students would perceive and utilize such an affordance by demonstrating learner agency at the participatory and inquisitive levels (van Lier, 2008). However, only a small number of students did so and a majority of them displayed learner agency at the passive level (van Lier, 2008). Student interview data revealed that although the students perceived the learning affordance of teacher-student consultation, they did not utilize it (see Af5) due to a macro-level factor (Fulmer et al., 2015), that is, the traditional belief of respecting teacher as a figure of authority. This is because social and cultural factors may influence which affordances can be utilized (Kyttä, 2004). Students' mindsets and attitudes may be more aligned with a teacher-centered approach to assessment instead of a learner-centered one (Fazel & Ali, 2022), especially in Confucian Heritage Culture settings.

Kate also found it difficult to make available to her less motivated or weak students the learning potential of teacher feedback. While she hoped that all her students would use teacher feedback on the outlines to improve subsequent writing, individual characteristics such as a low level of motivation and English writing proficiency, and related to it, a lack of knowledge of strategies to act on feedback, prevented some of her students from perceiving and utilizing the learning affordance of teacher feedback (see Af6). This is because individual characteristics influence what affordances can be perceived (Kyttä, 2004). Previous research shows that a high level of motivation and a repertoire of learning strategies impacted positively on learner engagement with writing feedback (Han & Hyland, 2015; Zhang & Hyland, 2018). Kate's case drew attention to less motivated and weak students and individual differences in their ability to perceive and engage with the affordance of teacher feedback.

In short, only in Jane's case the teacher's and students' fields of affordances were aligned in a positive way, due to her coordination of a variety of classroom resources to shape the learning affordance of teacher feedback as feed forward. Merry and Kate,

however, experienced difficulties in promoting student engagement with feedback due to macro-level factors (i.e., traditional beliefs influenced by sociocultural factors) and student-related factors (i.e., motivation and English writing proficiency). Merry's students perceived the affordance of teacher-student consultation and did not utilize it, making the teacher's and students' fields of affordances aligned in a limited way. Kate's students did not even perceive the affordance of teacher feedback because of a low level of motivation and writing proficiency, thus making it difficult to align the teacher's and students' fields of affordances. At the same time, all the three teachers need to further promote the affordances of peer comments received, which can also help student writers improve their writing (Diab, 2011).

Teachers' perception and shaping of learning affordances and students' perception and utilization of learning affordances

From an ecological perspective (Fulmer et al., 2015; Gibson, 1986), this study explored the implementation of LOA from both teacher and student perspectives. It identified the different extents to which the teachers perceived and shaped the learning affordances of LOA across its three dimensions and the various degrees to which their students perceived and utilized the shaped affordances. Table 2 summarizes the implementation of LOA with regard to affordance perception and shaping/utilization. The first point shows that teachers perceive and shape learning affordances, which are utilized by students. In this case, the teacher's and students' fields of affordances are aligned (e.g., Merry's and Kate's cases regarding the creation of learning-oriented assessment tasks and Jane's case concerning the shaping of teacher feedback as feedforward). However, it cannot be assumed that such an alignment must be desirable and it is important to attend to its nature (see Jane's case regarding learning-oriented assessment task design) and realign the two fields of affordances if necessary (see Merry's case regarding the development of evaluative expertise). In addition, teachers may only perceive learning affordances but fail to shape these affordances for their students (point 2) and they may even fail to perceive learning affordances (point 3) due to teacher factors (e.g., limited IT knowledge or assessment knowledge) and factors beyond the classroom (e.g., a lack of institutional support), making the teachers' and students' fields of affordances unaligned. From students' perspectives, they may utilize classroom affordances unperceived and unshaped by the teacher (point 4). When learning affordances are shaped by their teachers, the students may only be able to perceive but not utilize the shaped affordances (point 5) or they neither perceive nor utilize the shaped affordances (point 6) due to student factors (e.g., level of motivation and writing proficiency) and factors beyond the classroom (e.g., beliefs influenced by sociocultural factors). It is thus less likely to align the two fields of affordances.

The different extents of perceiving and shaping/utilizing learning affordances suggest the inter-person and intra-person variations in implementing/experiencing LOA in writing classrooms. For example, while Merry and Kate highlighted the formative dimension in spreading their students' learning efforts, Jane needed to downplay the summative

Table 2 Teachers' and students' perceptions and shaping/utilization of affordances of LOA

Elements of LOA	Learning-oriented assessment task design	Development of evaluative expertise	Student engagement with feedback
1. Affordances shaped by the teacher and utilized by the students	The teacher's and students' fields of affordances negatively aligned (see Jane's case and Af1) The teacher's and students' fields of affordances positively aligned (see Merry's and Kate's cases and Af1)	The teacher's and students' fields of affordances re-aligned (see Merry's case and Af1)	The teacher's and students' fields of affordances positively aligned (see Jane's case and Af1)
2. Affordances perceived by the teacher but not shaped for the students	N/A	The teacher's and students' fields of affordances un-aligned (see Kate's case and Af2)	N/A
3. Affordances unperceived by both teacher and students (i.e., potential affordance to both the teacher and students)	N/A	The teacher's and students' fields of affordances un-aligned (see Jane's case and Af3)	N/A
4. Affordances unperceived by the teacher but utilized by the students (i.e., potential affordance to the teacher only)	The teacher's and students' fields of affordances un-aligned (see Jane's case and Af4)	N/A	N/A
5. Affordances shaped by the teacher and only perceived (but not utilized) by students	N/A	N/A	The teacher's and students' fields of affordances aligned in a limited way (see Merry's case and Af5)
6. Affordances shaped by the teacher but neither perceived nor utilized by students (i.e., potential affordance to the students only)	N/A	N/A	The teacher's and students' fields of affordances un-aligned (see Kate's case and Af6)

dimension in doing so. In contrast, Jane promoted student engagement with feedback but Merry and Kate encountered difficulties in enabling the students to use feedback as feed forward. There is also intra-person variation in the implementation of LOA, as reflected by the different extents to which each teacher realized the learning potential of the three dimensions of LOA. For instance, Kate did well for the first dimension (i.e., creation of learning-oriented assessment tasks) but needed to improve her implementation of the other two dimensions. Overall, Merry recognized and shaped the affordances of two dimensions of LOA (i.e., designing learning-oriented assessment tasks and developing evaluative expertise), and such affordances were also perceived and used by her students, leading to a positive (re)alignment of the teacher's and her students' fields of affordances. In contrast, Jane and Kate only recognized and shaped the learning affordances of one dimension of LOA as well as created positive alignment between teachers' and students' fields of affordances for that dimension (i.e., promoting engagement with teacher feedback in Jane's case and designing learning-oriented assessment tasks in Kate's case).

Despite other differences among the three cases (e.g., different student population and different courses), one notable difference is the teachers' different years of teaching experience. Merry had 8 years of teaching experience at the time of study while Jane and Kate only had 2.5 years and 1 year of teaching experience respectively. In this study, Merry was not only able to perceive and shape learning affordances for her students as originally planned (e.g., creating learning-oriented assessment tasks), but also reflected on her assessment practice based on student responses and recreated learning affordance related to the development of evaluative expertise for her students, demonstrating teacher assessment literacy in practice (Xu & Brown, 2016). In other words, she was able to make appropriate assessment decisions by reconciling tensions between her original assessment design (i.e., the original design of peer feedback form) and external factors (i.e., negative student opinions) according to her reflection. Despite mixed findings regarding the influence of teaching experience on writing teachers' assessment knowledge and practice (Crusan et al., 2016; Tayyebi et al., 2022), it can be inferred from the study that teachers with longer years of teaching experience (e.g., Merry) may be more adept at adjusting assessment decisions based on reflection to better suit students' needs. Although Merry also had a higher level of educational attainment (i.e., a PhD. Degree in English language education) than the other two teachers, it is speculated that teachers with more years of teaching experience may have more opportunities to practice reflecting on their assessment practices and making assessment decisions based on a reconciliation between teacher assessment beliefs/values and external factors.

Similar to their teachers, the students also demonstrated inter- and intra-person variations in perceiving and utilizing the affordances of LOA. For example, while stronger students in Kate's class were able to perceive and utilize teacher written feedback on their outlines/proposals to improve their writing, weak students in the same class were not able to perceive the learning affordance of teacher feedback. Intra-person variations can be seen in the finding that in general the students in each teachers' class perceived and utilized the affordances of each dimension of LOA to different extents. These

inter- and intra-person variations in implementing/experiencing LOA were mainly due to micro-level (e.g., teacher and student), meso-level, and macro level factors, indicating the importance of the contextual dimension of LOA (Turner & Purpura, 2016) and the complexity of its implementation in context.

Adding to previous research (Carless, 2014, 2015; Derakhshan & Ghiasvand, 2023; Fazel & Ali, 2022; Jalilzadeh & Coombe, 2023; Kim & Kim, 2017), this research highlighted the complexity in the implementation of LOA, as encapsulated by a model of learning-oriented assessment in EAP writing classrooms. Extending Carless' (2014, 2015) model, this model contributed to a more fine-grained understanding of the implementation of LOA from both teacher and student perspectives. While Carless' (2014, 2015) model delineates the three key components of learning-oriented assessment, the model proposed in the paper highlighted the contextual nature of LOA, the active roles teachers and students play in relating themselves to the three dimensions of LOA, as in the form of perceiving and shaping/utilizing affordances, and the interplay between teacher and student perceptions. It presented the different extents to which teacher and students perceive and shape/utilize classroom affordances based on classroom resources, as illustrated by the different levels of affordances pertaining to and beyond their respective fields of affordances, as well as associated factors influencing the different degrees of perceptions and actions. The model can thus be used to determine the various ways in which the teacher's and students' fields of affordances were aligned based on the similarities and differences in the two parties' perception and shaping/utilization of learning affordances of LOA. When the teacher's and students' fields of affordances were unaligned or aligned in a limited or negative way, this model can also guide the reconstructed alignment based on the bi-directional relationship between the teacher's and students' perceptions and actions as well as relevant factors (i.e., teacher or student-related factors or meso- or macro-level factors) to maximize the learning potential of LOA.

Conclusion

From an ecological perspective (Fulmer et al., 2015; Gibson, 1986), this study has sought to explore the implementation of LOA in three EAP writing classrooms from both teacher and student perspectives, including both perceived success of and obstacles to implementation. The findings showed the different extents to which the teachers and students perceived and shaped/utilized the affordances of each dimension of LOA as well as the various ways in which their fields of affordances were aligned due to micro-level, meso-level, and macro-level factors. A model of learning-oriented assessment in EAP writing classrooms has been proposed to contribute to current knowledge of learning-oriented assessment.

The findings of the study provided three major implications for the implementation of LOA in EAP writing classrooms. First, the study highlighted the contextual dimension of LOA (Turner & Purpura, 2016). Teacher assessment literacy plays a crucial role in the successful implementation of LOA (Carless, 2015). In addition to enhancing

the assessment knowledge and skills involved in implementing LOA (e.g., assessment knowledge and IT knowledge), teacher training programs should regard the contextual dimension as part of teacher assessment literacy, raise teachers' awareness of the various factors affecting the extent to which both teachers and students perceive and shape/utilize the learning affordances of LOA, and consequently, the various ways in which the teachers' and students' fields of affordances are aligned.

Second, given the crucial role of reflective practice in teacher learning (Xu & Brown, 2016), teachers should also be guided to reflect on various factors to (re)construct the alignment between the two fields of affordances. This study suggested that students can support teachers' implementation of LOA by sharing their perceptions and utilization of affordances shaped or unshaped by their teacher, with such sharing leading to the (re)alignment of the teacher's and students' fields of affordances to maximize the potential of LOA.

Third, the teachers in the study did not receive any institutional support when they implemented LOA. As teacher agency plays a key role in sustaining teacher professional development (Tao & Gao, 2017), institutional support (e.g., IT support) should be given to enable teachers to practice agency to conquer difficulties in implementing LOA and to develop their knowledge of its implementation. At the institutional level, teachers also need to be given opportunities to have professional conversations with their colleagues about their assessment practices, leading to deeper reflection and even change of their current practices.

The current study only involved three writing teachers and their students, so the findings can only be generalized to similar contexts. Future research may utilize the model proposed in this study to explore the implementation of LOA with a larger number of teachers and students in other contexts, including non-academic writing contexts, to further refine the model so that the benefits of LOA can be maximized.
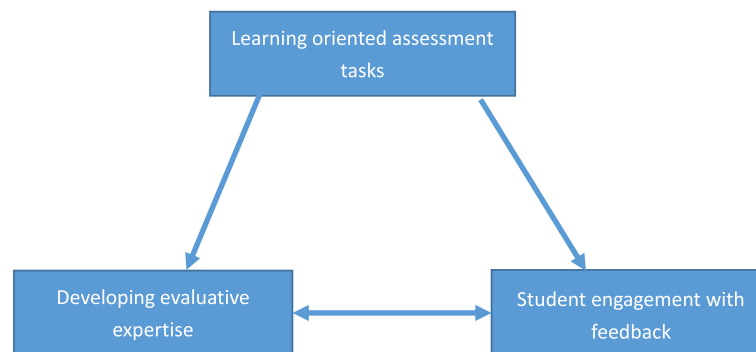
Appendix 1

Fig. 1 Carless' (2014, 2015) model of learning-oriented assessment
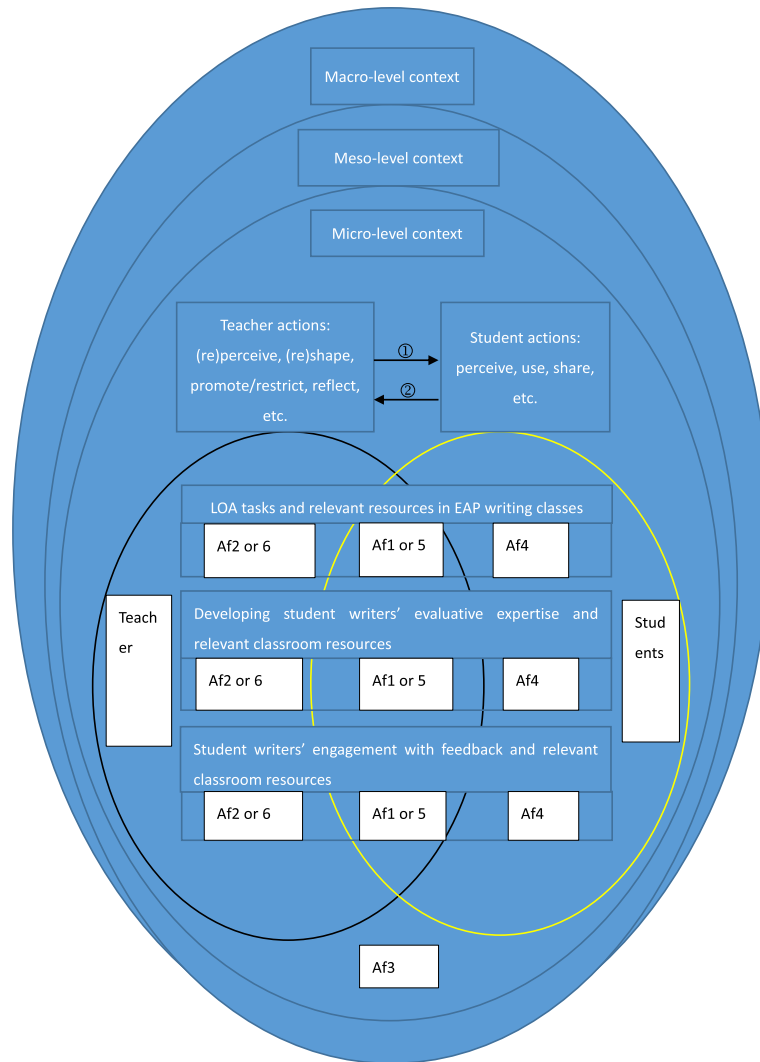
Appendix 2

Fig. 2 A model of learning-oriented assessment in EAP writing classrooms

Note:

   Af1: Learning affordances shaped by teacher and utilized by students (see the overlapping area of teacher's and students' fields of affordances)

   Af5: Learning affordances shaped by teacher and perceived (but not utilized) by students (see the overlapping area of teacher's and students' fields of affordances)

   Af2: Learning affordances perceived by teacher but not shaped for students (see the affordances that can only be found in teacher's field of affordance)

Af6: Learning affordances shaped by teacher but neither perceived nor utilized by students (see the affordances that can only be found in teacher's field of affordance)

Af4: Learning affordances not shaped by teacher but perceived or utilized by students (see the affordances that can only be found in students' field of affordance)

Af3: potential affordance that neither teacher nor students can perceive (see the affordance beyond teacher's and students' fields of affordances)

Abbreviations
EAP   English for Academic Purposes
LOA   Learning-oriented assessment

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