

# Learner Perceptions of the Feedback Process in the Online Component of a Blended Course

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## Abstract

Despite extensive research on feedback models, there is still sparse empirical evidence of their validity and application in higher education learning settings, whether online, hybrid, or face-to-face. Understanding how a feedback framework—integrated in the instructional cycle—is perceived by the learners can provide empirical support about its intended purpose and effectiveness. Recent reviews of research on student perceptions of feedback in different learning environments have revealed the need to research feedback as a process with the use of a more solid methodological approach. The aim of the present descriptive survey study is to investigate learners' perceptions of an established feedback model, Matrix of Feedback for Learning

(Brooks et al., 2019), in the asynchronous online component of an undergraduate blended course. More specifically, the impact of its application on learners' encounters with three types of feedback (feed-up, feed-back and feed-forward) and three levels of feedback (task, process, and self-regulatory) is explored. A 36-item survey, previously piloted and preliminarily validated, was used to explore learners' perceptions (N=135) of the three feedback types and levels. Approximately 68% of responses showed that students recognized feedback and the possibilities to use and act on feedback as helpful to their learning. This present survey supports a line of research on feedback model validation in online learning environments while offering meaningful insights from the learners that can inform both course design and interventions to support engagement with feedback.

*Keywords:* Blended course, higher education, feedback process, survey, learner perceptions

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In the last twenty years, research studies on feedback have advanced our understanding of feedback from different perspectives. Feedback, far from only being information provided to the learner from the instructor, is a process that actively and purposefully involves the learner (Carless, 2015) with engagement and agency on feedback received (Handley et al., 2011; Lipnevich et al., 2016; Nieminen et al., 2022; Winstone et al., 2017). Formative assessment and feedback are crucial drivers of student learning and are strictly interconnected (Hattie & Clarke, 2018; Hattie & Timperley, 2007; Lipnevich et al., 2016; Lui & Andrade, 2022; Shute, 2008; Smith & Lipnevich, 2018). However, formative assessment and feedback relationships do not denote a linear input-output response (Esterhazy, 2019).

Feedback as part of the learning process stems from the relation among the learners, the instructor, and the discipline-specific learning environment (Esterhazy, 2019), where formative assessment is one of the crucial elements, but not the only one. Research shows that feedback is a very powerful and critical aspect of learning (Hattie & Clarke, 2018); the same feedback process might work in one learning setting but not in another (Hattie & Clarke, 2018). Literature suggests that feedback supports and impacts student learning (Hattie & Timperley, 2007; Lipnevich & Smith, 2018; Shute, 2008), nevertheless there is no clear evidence of how feedback relates specifically to academic success and achievement (Hattie, 2009; Hattie & Anderman, 2019). Designing effective feedback processes in higher education with a learning-focused approach is a challenging (Winstone & Carless, 2020) yet not replicable task. In fact, feedback processes are inherent to the specific knowledge domain of a discipline (Boud & Molloy, 2013; Esterhazy, 2019; Winstone & Carless, 2020; Winstone et al., 2017;) and the ways this knowledge is organized and generated. Many are the feedback models and typology (Lipnevich & Panadero, 2022) supported by the literature, but only a few provide empirical evidence on their implementation, validity, and effectiveness.

The current research is driven by the theoretical framework that conceptualizes feedback as part of the learning process and, more specifically, as a relational process that emerges from the encounters among the discipline-specific learning environment, the learners, and the instructor (Esterhazy, 2019; Winstone & Carless, 2020). Within this framework, a principled course, assessment, and feedback design sustain several opportunities for encounters with feed-up, feed-back and feed-forward feedback types at three levels (task, process, and self-regulatory) (Brooks et al., 2019; Hattie & Timperley, 2007). Students engage with feedback that comes from different agents (Evans, 2013; Hattie & Timperley, 2007; Lipnevich et al., 2016) before, during, and after assessment (Dawson, 2023; Esterhazy, 2019).

The design of nested, scaffolded, ongoing, formative assessment as well as summative, multi-staged assessment offers opportunities for feedback agentic behavior on feedback, uptake of feedback, and resubmission of revised and improved tasks (Winstone et al., 2017). This study, conducted with the use of a student survey, contributes to the line of empirical research on the implementation of feedback models (Lipnevich & Panadero, 2021). Specifically, the researcher provides empirical evidence on the application of the feedback model conceptualized in a Matrix of Feedback for Learning (Brooks et al., 2019) in the online component of an English for Academic Purposes blended course and investigates the perceptions learners have of the feedback process in the asynchronous part of the course. A 36-question survey was used to explore learners' perceptions of feedback usefulness in relation to the whole feedback process,

feed-up, feed-back, and feed-forward (Brooks et al., 2019). The research question of this quantitative study addressed the impact of feedback design on learners' perceived benefits of the feedback process in the online component of the course.

### ***Feedback as Part of the Learning Process***

In feedback research, there is a consensus that feedback is not information provided to the learner after assessment, but a process that unfolds incessantly during the instructional cycle (Esterhazy et al., 2019; Hattie & Clarke, 2018; Winstone & Carless, 2020). The feedback process is planned and integrated into the learning processes from the outset (Esterhazy et al., 2019; Winstone & Carless, 2020) and supports a learner-focused approach, emphasizing learner agency on feedback (Carless & Boud, 2018; Nieminen et al., 2022; Winstone & Carless, 2020) and ongoing actionable feedback (Boud & Molloy, 2013; Carless, 2015; Esterhazy, 2019).

A learner-focused approach implies a shift of the focus of instruction from the instructor to the student who, in turn, engages with the instructor, peers, and instructional content and activities (Hoidn, 2016). A learner-focused approach relies on the design of student-centered learning environments which support a dynamic relation of the learner to the learning environment and its agents (Hoidn, 2016), where learners also feel ownership and control over their learning. Regarding feedback which is requested, received, self-assessed, and generated from peers, learners make sense of the feedback received, negotiate, and decide when to use it to improve their performance (Carless & Boud, 2018; Henderson et al., 2019; Winstone & Carless, 2020). This highlights a paradigm shift (Careless, 2015): Feedback is received, understood, and used by the learner, rather than merely-given to the learner (Careless, 2015; Hattie et al., 2017).

Ongoing actionable feedback provides several opportunities for feedback encounters along the instructional process (Esterhazy, 2018; Winstone & Carless, 2020) and promotes learners' application and use of feedback in future tasks and other learning opportunities (Winstone & Carless, 2020). To support a student-centered approach to feedback and multiple actionable feedback opportunities, course design needs to embed planning, designing, and effectively integrating a feedback model with instructional and pedagogical components that promote learners' agency with feedback from the onset (Winstone & Carless, 2020). Thus, feedback becomes a key element for successful instructional practices and offers guidelines for enhancing its impact on learners with gradual and purposeful progress towards the learning goals (Brooks et al. 2019; Carless & Boud, 2018; Hattie & Timperley, 2007; Lipnevich & Pandero, 2022; Nicol & Macfarlane-Dick, 2006).

### ***A Feedback Model for Instructional Intervention***

Lipnevich & Pandero (2021) reviewed 14 of the most acclaimed feedback models and contended that choosing a feedback model and theory for empirical investigations depends on the aims of the researcher and the level of applicability to different instructional scenarios. Lipnevich & Pandero's (2022) seminal integrative model of feedback elements—MISCA—represents today a precious tool to navigate feedback models and to support empirical research where the acronym MISCA stands for the integration of five feedback thematic areas: message, implementation, students, context, and agents. According to Dawson et al. (2023), "the MISCA model serves to frame the range of elements that interplay on how feedback messages are crafted, interpreted and actioned" (p. 3). This integrative model acknowledges feedback as part

of the learning process and underlines the learner's central role: the agentic behavior, the cognitive processing of the feedback message, the motivation, emotions, and experiences with feedback within the instructional learning context.

Among the many feedback frameworks presented in their review, Lipnevich & Panadero (2022) singled out the seminal theoretical framework by Hattie & Timperley (2007) as one of the most applied models. The model is simple, intuitive, and based on sound empirical investigations. It is "applicable to a wide range of behaviors, contexts, and instructional situations" (Lipnevich & Panadero, 2021, p.15). Based on empirical research on effective qualities of feedback, Hattie & Timperley's (2007) feedback model successfully categorizes feedback in diverse learning settings (Harris et al., 2015; Lipnevich et al., 2013). The feedback model presents specific instructional practices and pedagogical guidelines to impact student learning that can be smoothly and meaningfully integrated in course design from the beginning of instruction and in different instructional settings (Lipnevich & Panadero, 2021).

Considering previous contributions to feedback research (over 500 meta-analyses), Hattie & Timperley's (2007) feedback model contends that feedback's primary goal is to close the performance gap between the desired outcomes and the existing level of performance (Hattie & Timperley, 2007). According to Hattie & Timperley (2007), effective feedback should address three fundamental questions:

*Where am I going?* (Feed-Up): This aspect of feedback involves providing clarity about the learning goals and objectives. It helps learners understand what they are trying to achieve, setting clear expectations, standards, and criteria for specific activities or assessments. In essence, it guides students in understanding the direction they should take in their learning (Fisher & Frey, 2009; Hattie & Clark, 2018; Narciss & Huth, 2004; Sadler, 2010; Wang & Li, 2011; Wiggins, 1996).

*How am I doing?* (Feed-Back): At this level, feedback focuses on assessing the learners' current progress against success criteria. It highlights strengths and areas that require improvement. This feedback offers a snapshot of learners' performance and helps them understand where they currently stand in relation to the learning (Elder & Brooks, 1992; Kulhavy & Stock, 1989; Narciss & Huth, 2004).

*What comes next?* (Feed-Forward): Feed-Forward is about providing guidance for future improvement following success criteria. It goes beyond identifying weaknesses and suggests processes, guided strategies, and remediation techniques for learners to enhance work and future learning (Hounsell et al., 2008; Sadler, 2010; Sadler et al., 2023; Vardi, 2013). It empowers students to make informed decisions about their work.

Furthermore, Hattie & Timperley (2007) highlighted that the above questions should be used at four different levels:

*Task Level:* Feedback at this level pertains to how the specific task or assignment was accomplished or performed (Ashford, 1986; Ashford et al., 2003; Glover & Brown, 2006;

Shute, 2008). It focuses on the task's execution and achievement of objectives for a specific performance.

*Process Level:* This level of feedback includes commentaries on the strategies and approaches needed to effectively accomplish the task. s (Arts et al., 2021; Carless & Boud, 2018). It guides students throughout the learning process.

*Self-Regulatory Level:* This feedback level relates to learners' internal feedback mechanisms, self-assessment, and ability to direct and regulate actions toward achieving learning goals. It promotes metacognition and self-awareness (Arts et al., 2021; Deci & Ryan, 2000; Pintrich & De Groot, 1990).

*Self-Level:* The self-level involves praising and acknowledging learners' efforts and achievements. It is the least helpful of the four feedback levels (Kirschner et al., 2018.)

Importantly, Hattie & Timperley (2007) recognized that the timing of feedback is critical, especially concerning where students are in the instructional cycle. They emphasized the importance of shifting from a task-focused approach to addressing task-related strategies and self-regulation of processes. The effectiveness of feedback also depends on how the learners master the task, making it a dynamic and adaptive process in the learning journey.

The feedback model by Hattie & Timperley (2007) was further built on by Brooks et al. (2019) with the conceptual Matrix of Feedback for Learning that connects theory with application using practical examples (see Figure 1). Brooks et al.'s (2019) innovation was in proposing a matrix representing how each feedback type (feed-up, feed-back and feed-forward), within the overall feedback model, relates to each feedback level (task, process, and self-regulatory) and to learner stage with a task: novice, proficient and advanced learner. According to Brooks et al. (2019), generally task level feedback matches more the need of novice learners, while process and self-regulatory are mostly directed to proficient and advanced learners. In a different line from Hattie & Timperley (2007), Brooks et al., (2019) excluded the "self-level" feedback. The "self-level" feedback is frequently associated with praise and can have a negative impact on learning (Dweck, 2007; Hattie, 2009; Kluger & DeNisi, 1996).

## **Figure 1**

*Matrix of Feedback for Learning (Brooks et al., 2019)*

Learner Stage	Feedback Level	Feeding Up: Where am I going?	Feeding Back: How am I going?	Feeding Forward: What do I have to do next?	
Novice	Task	<b>Feeding Up Prompts:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Today we are learning ...</li> <li><input type="checkbox"/> Success in this task will look like...(exemplar/model)</li> <li><input type="checkbox"/> The key criteria for success are ...</li> <li><input type="checkbox"/> We are looking for...</li> </ul> <b>Feedback Strategies</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Reduce complexity</li> <li><input type="checkbox"/> Use exemplars/models</li> <li><input type="checkbox"/> Identify misconceptions</li> <li><input type="checkbox"/> Use diagnostic assessment for goal setting</li> </ul>	<b>Feedback Prompts:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> You <i>have/haven't</i> met the learning intention by...</li> <li><input type="checkbox"/> You <i>have/haven't</i> met the success criteria by...</li> <li><input type="checkbox"/> Your answer/work is/isn't what we are looking for because ...</li> </ul> <b>Feedback Strategies</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Avoid over emphasis of error analysis</li> <li><input type="checkbox"/> Feedback must be immediate</li> <li><input type="checkbox"/> Match feedback to success criteria</li> </ul>	<b>Feed Forward Prompts:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> To fully meet the learning intention you could...</li> <li><input type="checkbox"/> Addressing the following success criteria would improve your work...</li> <li><input type="checkbox"/> Adding/removing ____ would improve your work.</li> </ul> <b>Feed Forward Strategies</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Use language from the success criteria</li> <li><input type="checkbox"/> Use scaffolding</li> <li><input type="checkbox"/> Feed Forward must be timely</li> <li><input type="checkbox"/> Use challenge</li> <li><input type="checkbox"/> Refer to goals</li> </ul>	
	Proficient	Process	<b>Feeding Up Prompts:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> The key ideas/concepts in this task are ...</li> <li><input type="checkbox"/> These ideas/concepts are related by...</li> <li><input type="checkbox"/> Key questions you could ask about this task are...</li> <li><input type="checkbox"/> Skills you will need in this task are ...</li> <li><input type="checkbox"/> Strategies you will need in this task are ...</li> </ul> <b>Feeding Up Strategies</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Use graphical organisers</li> <li><input type="checkbox"/> Reduce scaffolding</li> <li><input type="checkbox"/> Increase complexity</li> <li><input type="checkbox"/> Use mastery goals</li> </ul>	<b>Feedback Prompts:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Your understanding of the ideas/concepts within this task is...</li> <li><input type="checkbox"/> Your thinking about this task is...</li> <li><input type="checkbox"/> You demonstrated ____ skills to a ____ level.</li> <li><input type="checkbox"/> You used ____ strategies to a ____ level.</li> </ul> <b>Feedback Strategies</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Feedback amount can start to increase</li> <li><input type="checkbox"/> Feedback complexity can increase</li> <li><input type="checkbox"/> Use prompts or cues</li> </ul>	<b>Feed Forward Prompts:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> You could improve your understanding of ____ concepts by...</li> <li><input type="checkbox"/> Thinking further about ____ could improve your work by...</li> <li><input type="checkbox"/> You could improve your ____ skills by...</li> </ul> <b>Feed Forward Strategies</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Feed Forward amount can start to increase</li> <li><input type="checkbox"/> Feed Forward complexity can increase</li> <li><input type="checkbox"/> Use prompts or cues</li> <li><input type="checkbox"/> Use challenge</li> </ul>
	Advanced	Self-Regulatory	<b>Feeding Up Prompts:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> How will you use the learning intention?</li> <li><input type="checkbox"/> How could you use the success criteria?</li> <li><input type="checkbox"/> Which other ways could you monitor your work?</li> </ul> <b>Feeding Up Strategies:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Reduce emphasis of exemplars</li> <li><input type="checkbox"/> Mastery and performance goals</li> </ul>	<b>Feedback Prompts:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Are you on track with your work?</li> <li><input type="checkbox"/> How do you know?</li> <li><input type="checkbox"/> To which level are you satisfying the success criteria?</li> <li><input type="checkbox"/> Are you on track to achieving your goal?</li> <li><input type="checkbox"/> How do you know?</li> </ul> <b>Feedback Strategies:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Delay feedback</li> <li><input type="checkbox"/> May only require verification feedback</li> </ul>	<b>Feed Forward Prompts:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> How could you deepen your understandings?</li> <li><input type="checkbox"/> How could you improve your work?</li> <li><input type="checkbox"/> What is the next step for your learning?</li> <li><input type="checkbox"/> How do you know?</li> </ul> <b>Feed Forward Strategies:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Delay feedback</li> <li><input type="checkbox"/> Reduce teacher reliance</li> <li><input type="checkbox"/> Develop self-regulated learners</li> </ul>

According to the feedback model, when this framework is integrated in the learning process and in the learning environment, opportunities for different types and levels of feedback can arise from different components of instruction (Brooks et al., 2019; Hattie & Clarke, 2018; Hattie & Timperley, 2007). Feedback on aspects of one's understanding and/or performance is provided by different agents, such as teachers, peers, professional practitioners, learners themselves and learners' experiences in the field, textbooks, and automated answers. Consequently, course design may leverage these learning and feedback opportunities. In this context, feedback can have many functions, such as directing students' attention to the learning intentions and standards required for success, reinforcing success, correcting errors, or helping to unravel misconceptions (Carless, 2006; Hattie, 2023; Hattie & Clarke, 2018). It may also help suggest specific improvements and/or alternative strategies to understand content, complete a task, detect errors, give improvement advice for the future on aspects of one's understanding and/or performance, among others (Brooks et al., 2019; Hattie & Timperley, 2007; Winstone & Carless, 2020). Hence this feedback framework presents interconnections among different components: instructional context, feedback agents, the type and level of messages, and the feedback uptake (Panadero & Lipnevich, 2023). In conducting a comprehensive literature review, it became evident that research on the topic lacked implementation details. More specifically, in their case study of the use of Hattie & Timperley's (2007) feedback model in higher education, Lipsch-Wijnen & Dirkx (2022) point out that despite the model's prevalent use in educational settings, there is a gap regarding the specifics of its utilization in teaching and learning. Furthermore, in relation to Brooks et al.'s matrix of feedback for learning (2019), two studies emerged as directly pertinent to the research question. Beltran (2021) mapped types and levels of feedback in a higher education course in online synchronous and asynchronous sessions to Brooks et al.'s, 2019 matrix during a 6-week COVID period. A student survey showed mismatches between learners' feedback perceptions and the researcher's observations of the

learning environment and the need to further investigate the application of this feedback model. In addition, Moni's (2023) research study used the Matrix of Feedback for Learning (Brooks et al., 2019) to investigate with content analysis how the feedback and assessment feedback design, —in the online component of a blended course in English for Academic Purposes—could sustain opportunities for feedback encounters and enable student uptake of feedback.

These findings underscore the necessity for additional quantitative and qualitative research into the application of this feedback model in online learning environment to close the identified gap.

### ***Learner Perceptions of Feedback in Research***

Student perceptions are of central importance in research on feedback practices as they provide insights on how the feedback is regarded, understood, and interpreted by learners. According to Scherer et al. (2016), one of the most crucial factors in determining instructional effectiveness is primarily students' perceptions of instructional quality. This is also true for evaluation of the feedback process, unanimously recognized as part of the instructional process (Boud & Molloy, 2013; Esterhazy, 2018; Winstone & Carless, 2020). Survey studies on students' perceptions of feedback as part of the learning process can support the investigation of feedback "as a function of the nature of the learning setting" (Lipnevich et al., 2016, p.170). Typically, surveys help researchers to consider the "state, transient and situation-specific" learner perceptions of feedback (Lipnevich et al., 2016, p.179).

Previous investigations of learner perceptions of feedback, few on feedback processes, and numerous on single or different aspects of feedback (Pokorny & Pickford, 2010; Winstone, 2022), revealed learner perceptions in relation to different dimensions: usefulness, effectiveness, quality, characteristics, response, context, and action (Lipnevich et al., 2016; Van der Kleij & Lipnevich, 2021). Among these, a large body of research investigated how the feedback is understood in relation to usefulness, effectiveness, and quality (Lipnevich et al., 2016). Results pointed out that there is little probability that feedback will have any impact on students' subsequent work unless they consider it to be useful, helpful, specific, and objective (Jonsson & Panadero, 2018; Lipnevich & Smith, 2009).

## **Method**

An anonymous survey was used to examine the student perceptions of the feedback process in the online component of a 13-week English for Academic Purposes (EAP 1002) undergraduate blended course delivered in Blackboard (LMS). Institutional Review Board (IRB) approval was obtained prior to the piloting and data collection.

### ***Setting***

In the EAP blended course, instruction combines 6 hours in-class and 3 hours asynchronous online study and activities per week. In this course, students enhance their mastery of academic English and acquaint themselves with the study skills essential for college-level academics. The 13-week course is carefully organized into weekly segments, further divided into folders for face-to-face (F2F) and online instruction. The F2F folders serve as spaces where instructors can detail what is covered during in-person lessons only. In contrast, the online

folders are designed to be standardized across sections and instructors with exclusive focus on essay writing and online feedback practices.

Following institutional policy, the course is planned and built by an instructional designer with a terminal degree in the field, who is the director of the EAP program, as well as by a team of EAP subject matter experts (SMEs) with more than 20 years of experience. All SMEs and faculty teaching the course have successfully completed institutional faculty development courses on online teaching and learning, with emphasis on backward design, assessment and feedback for learning, and learner-centered instruction.

The EAP blended course development process followed a backward design with course alignment (McTighe & Willis, 2019; Wiggins & McTighe, 2005). Long & Doughty's (2009) methodological principles of language teaching are applied to ensure that learning outcomes, assessments, and course learning activities are linked and contribute to student-centered learning and progress towards the course learning goals. The EAP blended course was designed to meet the Quality Matters (QM, 2023) and the Online Learning Consortium Course Design Review Scorecard (OLC OSCQR, 2021) for higher education standards for quality online and blended course design.

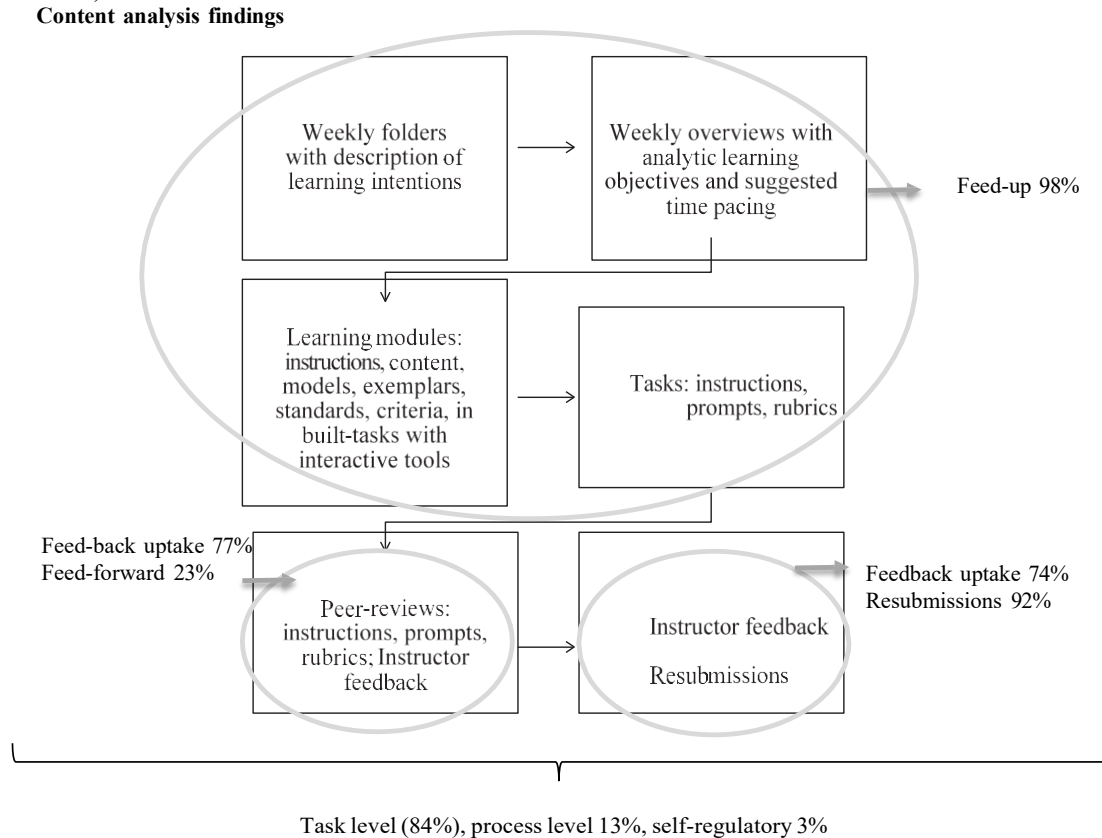
One particular feature of the course is the feedback design of the online component of the course: "Feedback is not something that happens after assessment has taken place; rather, it is designed into learning processes from the outset" (Winstone & Carless, 2020, p.9). The design promotes effective student use of feedback for learning, which is a vital skill for success in academic programs and autonomous and lifelong learning (QM, 2023; Stein & Graham, 2020). The feedback design is supported through detailed feed-up information as well as instructor feedback. This structure ensures that students receive clear, centralized guidance to enhance their writing skills. A previous qualitative study (Moni, 2023) conducted with content analysis of the feedback process of the online component of the EAP blended learning course in spring semester 2021 (52 students and 5 instructors) investigated how assessment and feedback design created several opportunities for feedback encounters and enabled student uptake of feedback. The Matrix of Feedback for Learning (Brooks et al., 2019) was used to investigate and code the feedback encounters generated in the course.

Findings (see Figure 2) showed that, in the online component of the course, online feedback from different instructors across the five sections of the EAP blended course was uniform and consistent. More specifically, online encounters with feed-up information e.g., weekly overviews with suggested dates and time pacing, instructions, prompts, scaffolds, exemplars, standards and criteria, among others (Brooks et al., 2019; Hattie, 2023; Hattie & Timperley, 2007; Henderson et al., 2019; QM, 2023), comprised 98% of all coded segments. Online feed-back and feed-forward instructor commentaries were at 77% and 23% respectively. With regard to the levels, feedback commentaries were mainly at task level (84%), whereas process level and self-regulatory were respectively at 13% and 3%. Uptake of feedback was at 74% and task resubmission rate leveled to 92%. The findings of the content analysis suggested that, in the online component of the course: a) learners had several opportunities for feedback encounters before, during, and after the assessment, b) learners encountered all three types and

levels of feedback, c) feedback commentaries were mainly at task level with fewer encounters at process and self-regulatory levels, and d) students' uptake of feedback was satisfactory.

**Figure 2**

*Content Analysis Findings from the Online Asynchronous Component of the Blended Course (Moni, 2023)*



**Participants**

Sampling followed a “complete target population” (Patton, 2015, p. 284) with a total of 209 participants. A complete target population sample gave the possibility to take into consideration the voice of all students in relation to feedback in the online component of the course. The study expanded over the course of 3 college semesters (spring semester 2022 N=73, summer session 2022 N=15, and fall semester 2022 N=121) across 13 sections taught by seven different EAP instructors. The survey was administered in each section during the last two weeks of the semester, when students had completed all online activities and had received feedback already. A total of 135 (64.6%) undergraduate students completed and submitted the survey, 58.51% of which were female (see Appendix A). The vast majority of students (78.6%) were within the range of 18-20 years of age at the beginning of their college studies (89.7% had 0-30 college credits) who need to advance their knowledge in academic English before continuing with more advanced general education courses.

### ***The Measurement Tool***

The present self-constructed survey was designed to measure learner perceptions of the feedback process (Winstone, 2022) in the online component of the EAP undergraduate blended course. The survey construction was based on the alignment of constructs and items with the findings of Moni's (2023) study and the theory of the Matrix of Feedback for Learning (Brook et al., 2019). Emphasis was placed on the development of clear and understandable items, the use of clear and understandable language based on learners' experience with the course, and the use of unbiased questions (Harlacher, 2016).

The pilot survey was composed by 36 Likert-style questions, 4 multiple answers, and 1 yes-no question. The Likert scale was 5-point 1= strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, and 5= strongly disagree (Harlacher, 2016). The survey was created with LimeSurvey (with institutional license) and was piloted at the beginning of 2022 (January), with a convenience sample of 51 students, registered for the EAP 1002 blended course during fall 2021. The vast majority of students (N= 37, 72.54%) completed the pilot survey. Ten of them also participated in informal interviews about the survey, regarding the length, duration, clarity of expression and purpose of items. Interviewees felt the survey length and submission deadline were appropriate, and the questions were clearly formulated; five items were removed on the basis of being repetitive or falling under subjective interpretation.

The final version of the survey consisted of 36 Likert-type questions (see Appendix B). Based on the findings of Moni's (2023) and the theory of the Matrix of Feedback for Learning (Brook et al., 2019), four survey constructs were identified: feed-up, feed-back, and feed-forward, and the overall personal experience with the feedback in the online setting. More specifically, the four-construct items that constituted the survey were:

1. Learner Perceptions on Feed-Up: items related to feed-up elements in the online components of the course. (10 items)
2. Learner Perceptions on Feed-Back: items related to the instructor feed-back type of commentaries students received. (9 items)
3. Learner Perception on Feed-Forward: items related to the instructor feed-forward type of commentaries students received. (9 items)
4. Learner Perceptions on the Feedback Process: items related to the overall learner experience with the feedback process. (5 items)
- 5.

Cronbach's  $\alpha$  measure of internal consistency and Confirmatory Factor Analysis were conducted to investigate the survey validity. Cronbach's alpha coefficient was computed to measure the internal consistency of the four survey constructs (with 36 Likert-scale items). Cronbach's alpha coefficients for constructs 1 to 4 (0.892, 0.924, 0.923, 0.884) indicated very good internal consistency: items consistently measured each of the four constructs (see Appendix C).

The preliminary confirmatory factor analysis (CFA) computed with Jasp (University of Amsterdam, open source license) was used to test whether the data collected supports a theoretical model. CFA confirmed that the 4-construct survey with Likert items is a good model:

1. The model is a rather good fit: both fit indices like CFI and TLI are above 0.900;

2. RMSEA values between 0.033 and 0.055 are good values;
3. Each set of items loaded positively: loading factor were above 0.700 and all p indicators were statistically significant, with  $p < 0.01$ .

These findings (see Appendix C) supported the four-dimension structure and provided evidence of good construct validity for the learner perceptions of feedback survey. The confirmatory factor analysis supported the relationships between items suggested by the theoretical framework of the Matrix of Feedback for Learning (feed up, back forward; task, process, level) (Brook et al., 2019).

## Results

Analysis of variance (ANOVA) was initially used to explore the differences in learner perceptions among the three cohorts. More specifically, Tuckey Kramer analysis for different sample sizes was used. Value of p greater than 0.05 confirmed that no significant differences in learner perceptions across constructs and semesters was identified (see Appendix D).

A descriptive analysis of the 36-Likert-item survey was conducted. Table 1 shows the means and the standard deviations per construct and per semester (1, 2 and 3). For Construct 1, the respective mean values were M 1.436 (*SD* 0.601), 1.790 (*SD* 0.901) and 1.640 (*SD* 0.683). For Construct 2, M values were 1.838 (*SD* 0.854), 1.700 (*SD* 0.695) and 1.820 (*SD* 0.759) respectively. For Construct 3, the respective values were M 1.381 (*SD* 0.607), 1.680 (*SD* 0.704) and 1.500 (*SD* 0.646) respectively. For Construct 4, M values were 1.868 (*SD* 0.662), 1.630 (*SD* 0.654) and 1.510 (*SD* 0.618) respectively. The overall low means (minimum Mean 1.381- maximum Mean 1.868) and low standard deviations (minimum *SD* 0.601 and maximum *SD* 0.910) suggested that the students perceived highly the benefits of the feedback process in the online component of the course and that there was a lot of agreement about the responses across the three cohorts. The normal standard distribution of data showed that 68% of respondents agreed (strongly agree -Likert scale 1, agree -Likert scale 2) that the overall feedback process with feed-up, feed-back, feed-forward types were helpful to their learning.

Table 1

*Mean Values and Standard Deviations per Construct and per Semester (N=135)*

Constructs	Semester 1 (N=53)		Semester 2 (N=7)		Semester 3 (N=75)	
	M	SD	M	SD	M	SD
1. Learner Perceptions of Feed-Up (B1-B10)	1.436	0.601	1.790	0.910	1.640	0.683
2. Learner Perceptions of Feed-Back (C1-C9)	1.838	0.854	1.700	0.695	1.820	0.759

3. Learner Perceptions of Feed-Forward (D1-D9)	1.381	0.607	1.680	0.704	1.500	0.646
4: Learner Perceptions of the overall Feedback Process (E1-E5)	1.868	0.662	1.630	0.654	1.510	0.618

**Construct 1: The Components of the Asynchronous Part of the Course**

Table 2 shows the means and distributions (frequency and percentages) of responses of learner perceptions about the feed-up elements of the online asynchronous component of the course. Responses show that students strongly agreed and agreed that the following feed-up elements were helpful to their learning: weekly overviews to understand the learning purpose of each online week (B1, M 1.61), deadlines to organize their study time (B2, M 1.76) and to submit the online activities on time (B3, M 1.68), models and exemplars to complete the online activities on time (B4, M 1.71), rubrics which explained how the online activities will be evaluated (B5, M 1.77), questions and ideas to develop writing tasks (B6, 1.75), academic writing skills in support of the writing activities (B7, M 1.67), techniques to identify misconceptions and common language mistakes in support of academic writing (B8, M 1.79), suggested skills on how to avoid plagiarism (B9, M 1.76), instructions to organize the online work (B10, M 1.75). Table 2 also shows that middle point responses (Likert scale 3, neither agree nor disagree) moderately captured learners’ attention whereas negative responses (Likert-scale 4 and 5, disagree and strongly disagree) were low rated.

**Table 2**

*Construct 1: Mean Values (M), Frequency and Percentage (f-%) of Responses (N=135)*

Construct 1	M	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
		(1)	(2)	(3)	(4)	(5)
		f-%	f-%	f-%	f-%	f-%
B1	1.61	63-46.7	63-46.7	7-5.2	2-1.5	-
B2	1.76	66-48.9	44-32.6	19-14.1	3-2.2	3-2.2
B3	1.68	69-51.1	45-33.3	17-12.6	3-2.3	1-0.7
B4	1.71	59-43.7	58-43.0	17-12.6	-	1-0.7
B5	1.77	55-40.5	61-45.2	13-9.6	5-3.7	1-0.7
B6	1.75	55-40.7	60-44.4	19-14.1	1-0.7	-
B7	1.67	60-44.4	61-45.2	12-8.9	2-1.5	-
B8	1.79	55-40.7	61-45.2	13-9.6	5-3.7	1-0.7
B9	1.76	57-42.2	59-43.7	15-11.1	3-2.2	1-0.7
B10	1.75	57-42.2	56-41.5	21-15.6	1-0.7	-

**Construct 2: Learner Perceptions of Instructor Feedback on How They Are Doing in the Asynchronous Part of the Course**

Table 3 shows the means and distribution (frequency and percentages) of responses of learner perceptions about the feed-back commentaries they received in the online component of the course. Responses show that overall students strongly agreed and agreed that instructor feed-back commentaries were helpful when they focused on: correct and incorrect paragraph (C1, M

1.53); correct and incorrect paragraph and essay structure (C2, M 1.58); correct and incorrect use of citation (C3, M 1.71); the logic behind ideas in essay writing (C4, M 1.69); the writing process: drafting, revising and editing (C5, M 1.65); the correct or incorrect use of grammar; vocabulary and punctuation (C6, M 1.63); criteria for success listed in the rubrics (C7, M 1.60); progress made with the online work (C8, M 1.77); and progress in relation to the learning goals (C9, M 1.67). Table 3 further shows that midpoint responses (Likert scale 3, neither agree nor disagree) moderately captured learners' attention in all item questions (C1-C9). *Disagree* and *Strongly disagree* (Likert-scale 4 and 5) responses were extremely low rated (C8, C9).

**Table 3**

*Construct 2: Mean Values (M), Frequency and Percentage (f-%) of Responses (N=135)*

		<b>Strongly agree (1)</b>	<b>Agree (2)</b>	<b>Neither agree nor disagree (3)</b>	<b>Disagree (4)</b>	<b>Strongly disagree (5)</b>
<b>Construct 2</b>	<b>M</b>	<b>f-%</b>	<b>f-%</b>	<b>f-%</b>	<b>f-%</b>	<b>f-%</b>
C1	1.53	75-55.6	50-37.0	9-6.7	1-0.7	-
C2	1.58	71-52.6	51-37.8	12-8.9	1-0.7	-
C3	1.71	60-44.4	55-40.7	10-14.1	1-0.7	-
C4	1.69	59-43.7	59-43.7	17-12.6	-	-
C5	1.65	61-45.2	61-45.2	12-8.9	1-0.7	-
C6	1.63	69-51.1	50-37.0	13-9.6	3-2.2	-
C7	1.60	63-46.7	63-47.6	9-6.7	-	-
C8	1.77	59-43.7	54-40.0	18-13.3	2-1.5	2-1.5
C9	1.67	59-43.7	54-40.0	18-13.3	2-1.5	2-1.5

***Construct 3: Learner Perceptions of Instructor Feedback on What They Have to Do Next to Improve in the Asynchronous Part of the Course***

Table 4 shows the means and distribution (frequency and percentages) of responses of learner perceptions about the feed-forward commentaries they received in the online component of the course. Responses show that overall students strongly agreed and agreed that instructor feed-forward commentaries helped them: improve the structure of their paragraph (D1, M 1.56); improve their essay structure (D2, M 1.49); better organize ideas in their essay (D3, M 1.60); use the suggested prewriting, drafting, revising, and editing process (D4, M 1.67); improve the use of grammar, vocabulary, and punctuation (D5, M 1.67); further improve writing skills (D7, M 1.60); use rubrics to further improve writing (D7, M 1.73); use and implement instructor feedback to edit and improve their work (D8, M 1.56, D8); and make progress in relation to the learning goals (D9, M 1.61). Midpoint responses moderately captured learners' attention in questions D1 to D7. *Disagree* and *Strongly disagree* (Likert-scale 4 and 5) responses were extremely limited.

**Table 4**

Construct 3: Mean Values (M), Frequency and Percentage (F-%) of Responses (N=135)

		Strongly agree (1)	Agree (2)	Neither agree nor disagree (3)	Disagree (4)	Strongly disagree (5)
Construct 3	M	f-%	f-%	f-%	f-%	f-%
D1	1.56	73-54.1	52-38.5	7-5.2	2-1.5	1-0.7
D2	1.49	83-61.5	39-28.9	12-8.9	1-0.7	-
D3	1.61	69-51.1	52-38.5	12-8.9	2-1.5	-
D4	1.60	68-50.4	55-40.7	10-7.4	2-1.5	-
D5	1.67	63-46.7	59-43.7	9-6.7	2-1.5	2-1.5
D6	1.60	70-51.9	50-37.0	14-10.4	1-0.7	-
D7	1.73	57-42.2	60-44.4	17-12.6	1-0.7	-
D8	1.56	69-51.1	56-41.5	10-7.4	-	-
D9	1.61	69-51.1	56-41.5	10-7.4	-	-

**Construct 4: Learner Perceptions of the Overall Feedback Process**

Table 5 shows the means and distribution (frequency and percentages) of responses of learner perceptions about the overall feedback practices in the asynchronous part of the course. More specifically, students agreed/strongly agreed that feedback practices encouraged them to ask for instructor and peer-feedback (E1, M 1.56); self-assess their writing and activities before submission (E2, M 1.65); use feedback comments to resubmit an improved version of their writing activities (E3, M 1.81); and give peer feedback (E4, M 1.75). Overall, students felt satisfied/strongly satisfied with the feedback practices in the EAP 1002 asynchronous part of the course (E5, M 1.64). Midpoint responses (Likert scale 3, neither agree nor disagree) moderately captured learners' attention. *Disagree* and *Strongly disagree* received very limited attention in all items (E1-E5).

**Table 5**

Construct 4: Mean Values (M), Frequency and Percentage (F-%) of Responses (N=135)

		Strongly agree (1)	Agree (2)	Neither agree nor disagree (3)	Disagree (4)	Strongly disagree (5)
Construct 4	M	f-%	f-%	f-%	f-%	f-%
E1	1.56	75-55.6	46-34.1	12-8.9	2-1.5	-
E2	1.65	74-54.8	49-36.3	10-7.4	2-1.5	-
E3	1.81	47-34.8	70-51.9	15-11.1	3-2.2	-
E4	1.75	57-42.2	57-42.2	10-14.1	2-1.5	-
E5	1.64	69-51.1	50-37.0	12-8.9	3-2.2	1-0.7

Cross-tabulation analysis for midpoints and negative answers across the four constructs did not reveal any pattern in learners' perceptions.

## Discussion

The present study aimed at examining the impact of the feedback design on learners' perceived benefits of the feedback process in the online component of an EAP blended course. The findings offer evidence of the significant the impact of the feedback design on learners' perceptions and more importantly, learners' positive ratings corroborated the usefulness and effectiveness of the design. The application of the Matrix of Feedback for Learning by Brook et al. (2019) was instrumental in enhancing learners' experiences with the three types of feedback (up, back, and forward) across different levels (task, process, and self-regulatory) and learner stage, thereby substantiating the study's initial inquiry into the efficacy of feedback design in online learning environments. The discipline-specific feedback design mirrored previous research on the application of the specific feedback design and confirmed the following aspects of feedback design (Lipnevich & Panadero, 2022).

First, relations between different elements of the learning units which were planned up-front (Esterhazy, 2018) translated into designing instructional cycles where resources (e.g., instructions, prompts, content, scaffolds, criteria, etc.) are integrated with formative assessment (e.g., check for understandings, tasks, and activities) and with feedback encounters (Boud & Molloy, 2013; Esterhazy, 2019; Hattie & Clarke, 2018; Winstone & Carless, 2020). Second, the feedback process facilitated the interconnections between the three types and levels of feedback and opportunities to use feedback to improve and resubmit a revised version of one's work. Third, the specific feedback design supported several opportunities with regard to learner feedback agency: requesting feedback, generating feedback, making sense of feedback, self-assessment, and implementing feedback (Boud & Molloy, 2013; Esterhazy, 2019; Hattie & Clarke, 2018; Winstone & Carless, 2020). Fourth, frequent weekly feedback generated by different agents (e.g., automatic, peer, instructor, resources) supported the learners' progress (McTighe & Willis, 2019; Wiggins & McTighe, 2005).

In the next sections, we will discuss both learners' positive responses about the feedback process of the online component of the course (Likert scale 1 and 2) as well as the midpoint (Likert scale 3), and negative ratings (Likert scale 4 and 5). According to the literature, the latter responses (Likert scale 3, 4 and 5) could convey respectively learners' lack of knowledge, indifference, dilemmas, and ambivalence (Baka et al., 2012) or a problematic relationship between the learner and the feedback process. Learners could possibly dread it because of past negative experiences (Linnenbrink & Pintrich, 2002; Lipnevich & Smith, 2009).

### ***Construct 1: The Asynchronous Part of the Course***

Learners' recognition of the importance and the help provided by all feed-up information corroborated the need to embed and integrate learning materials with feed-up elements throughout the online component of the EAP blended course (see Figure 2). Consistent with prior research, weekly overviews with clear learning outcomes helped learners understand the learning purposes of each week and interact with the learning material (Brooks et al., 2019;

Hattie, 2023; Hattie & Timperley, 2007; Henderson et al., 2019; QM, 2023). In line with Brooks et al. (2019), Hattie (2023), Hattie & Timperley (2007), Henderson et al. (2019), and QM (2023), deadlines for learning activities and writing facilitated study time organization and supported timely assignment submission had a positive impact on student self-regulation. In line with prior evidence, models and exemplars supported learners' challenge with new and unfamiliar writing tasks, and showed students what was expected of them and what would constitute high quality (Brooks et al. 2019; Carless et al., 2018; Hattie, 2023; Hattie & Timperley, 2007; Henderson et al., 2019; QM, 2023; Sadler, 2010).

According to Haw et al. (2017), learners find use of models and exemplars more helpful than rubrics, as they provide a worked example. Rubrics for each learning activity, helped learners explore, clarify, and internalize the requirements and success criteria while keeping them focused on the online tasks. The presence of models, worked exemplars, and rubrics helped increase the understanding of the writing tasks (Brooks et al. 2019; Carless et al., 2018; Haw et al., 2017; Hattie, 2023; Hattie & Timperley, 2007; Henderson et al., 2019; QM, 2023;). Prompting students with questions and ideas, connected to the specific learning outcomes, helped learners explore different point of views and move learning forward and supported writing tasks (Arts et al., 2021; Brooks et al. 2019; Carless & Boud, 2018). Academic writing skills information across the 13-week course helped learners' approach academic writing step-by-step. Techniques helped learners identify misconceptions (Brooks et al., 2019; Carless, 2006; Hattie, 2023; Hattie & Clarke, 2018; Hattie & Timperley, 2007; QM, 2023) and common language mistakes related to prior-learning and modify them step-by-step through the use of specific techniques. Specific step-by-step instructions helped learners avoid plagiarism and commit to a correctly referenced essay. Overall and reiterated instructions to organize online work helped learners keep focused on the several activities required in each week (Esterhazy, 2019; Hattie & Clarke, 2018).

With regard to the learners' midpoint and negative responses, difficulty to relate to feed-up information may be traced back to the fact that, in the online component of the course, feed-up information is not instructor-mediated but is provided as in-built component of the learning content which students have to view, read, and interpret by themselves. In agreement with Carless (2022), learner autonomy is a requisite skill.

### ***Construct 2: Learner Perceptions of Instructor Feedback On How They Are Doing in the Asynchronous Part of the Course***

In the online asynchronous component of the course, learners' perceptions confirmed the help provided by feed-back type commentaries at task, process, and self-regulatory levels. Conforming to earlier research, learners' responses substantiated the usefulness of instructors' task-level commentaries which pointed out correct and incorrect paragraph and essay structure, and correct and incorrect use of citation. Furthermore, they provided insights into correct or incorrect use of grammar, vocabulary and punctuation, and matched performance to success criteria listed in the rubrics (Brooks et al., 2019; Elder & Brooks, 1992; Hattie & Timperley, 2007; Kulhavy & Stock, 1989; Narciss & Huth, 2004). In line with Arts et al., 2021 Brooks et al., 2019; Carless & Boud, 2018; Hattie & Timperley, 2007). In agreement with Arts et al. (2021), Brooks et al. (2019), Carless & Boud (2018), Hattie & Timperley (2007), respondents also confirmed the helpfulness of process level commentaries when instructors focused on the

logic behind ideas in essay writing, and drew attention to the use of the writing process: drafting, revising and editing (Arts et al., 2021; Brooks et al., 2019; Carless & Boud, 2018; Hattie & Timperley, 2007). Last, learners' responses verified the efficacy of self-regulatory level commentaries when instructors pointed out progress made with the online work (C8), and learners' progress in relation to the learning goals (Arts et al., 2021; Brooks et al., 2019; Deci & Ryan, 2000; Hattie & Timperley, 2007; Pintrich & De Groot, 1990).

Considered the interconnections of the three feedback types and levels (Brooks et al., 2019; Hattie & Timperley, 2007), the relatively few learners' midpoint and negative responses about instructors' feed-back commentaries could stem from difficulties encountered with one or more aspects of feed-up information: for example, inability to understand a task requirement might negatively impact learners' engagement with the correspondent instructor feed-back commentary (Carless, 2022).

### ***Construct 3: Learner Perceptions of Instructor Feed-Forward on What They Have to Do Next to Improve in the Asynchronous Part of the Course***

In the online asynchronous component of the course, learners' perceptions confirmed the usefulness of feed-forward type commentaries at task, process and self-regulatory levels and reflected practices suggested in the Matrix of Feedback for Learning (Brooks et al., 2019; Hounsell et al., 2008; Sadler, 2010; Sadler et al., 2023; Vardi, 2013). In specific, learners' responses verified the usefulness of task level commentaries (Hounsell et al., 2008; Sadler, 2010; Sadler et al., 2023; Vardi, 2013) which provided directions on how to improve the structure of paragraphs, how to improve an essay structure, how to improve the use of grammar, and vocabulary and punctuation (e.g., in paragraphs and essay writing). These commentaries encouraged learners to review rubrics to further improve writing (Brooks et al., 2019; Hattie & Timperley, 2007).

Responses also substantiated the use of process level commentaries (Arts et al., 2021; Brooks et al., 2019; Carless & Boud, 2018; Hattie & Timperley, 2007) when commentaries guided learners on how to improve the organization of ideas in their essay; encouraged learners to use prewriting, drafting, revising, and editing process; helped learners understand how to further improve writing skills; and encouraged learners to use and implement instructors' feedback to edit and improve their work (Brooks et al., 2019; Hattie & Timperley, 2007). Last, respondents acknowledged the use of self-regulatory level commentaries (Arts et al., 2021; Brooks et al., 2019; Deci & Ryan, 2000; Hattie & Timperley, 2007; Pintrich & De Groot, 1990) when information helped them make progress in relation to the learning goals. The few midpoint and negative responses on aspects of feed-forward commentaries could be attributed to learners' inability to relate with one or more aspects of feed-up information, feed-back commentaries (task requirements, meeting standards, correct/ incorrect answers, use of correct/ incorrect strategies etc.) as well as failure to see the relationships between the different types and levels of information and feedback provided (Brooks et al., 2019; Hattie & Timperley, 2007).

### ***Construct 4: Learner Perceptions About the Feedback Practices in the Asynchronous Part of the Course***

With regard to the overall feedback process, findings revealed learners' strong appreciation of the feedback process and the likelihood to ask for instructors' feedback, peer-

feedback, self-assess one's writing and activities before submission, use feedback comments to resubmit an improved version of one's writing activities, and give peer feedback. These results confirmed previous findings, emphasizing central role of the feedback process in supporting students' agency on feedback as highlighted by Handley et al. (2011), Lipnevich et al. (2016), Nieminen et al., (2022), and Winstone et al. (2017). Additionally, commentaries corroborated learners' positive perception for a feedback process that stems from the interactions between the learners, the instructor, and the discipline-specific learning environment (Esterhazy, 2019). In fact, taken together the results showed that feed-up, feed-back, and feed-forward interacted with each other in a way that supported students' overall satisfaction with the feedback process.

Confirming Brooks et al.'s study (2019), learners' perception of the usefulness of the feedback process provided evidence of a strong and harmonious integration of the three types and levels of feedback. The few midpoint and negative answers may suggest students' limited ability to engage and act on feedback as well as failure to relate to the three types and levels of feedback. In line with Carless (2022), this may be explained by the fact that in the online component of the course there is less instructor mediation and more need for learning autonomy. In addition, the fact that EAP blended course learners are mostly novice undergraduate learners at the beginning of their studies and unfamiliar with certain feedback practices (Brooks et al. 2019) and feedback literacy (Carless, 2022) may impact learners' ability to understand how to relate to feedback.

## **Conclusions**

This study confirmed the positive impact of the feedback design on learners' perceived benefits of the feedback process in the online component of an EAP blended course. Results highlighted the need and strength of a sound and mindful backward course design (McTighe & Willis, 2019; Wiggins & McTighe, 2005) to support the integration of feedback into the instructional process (Esterhazy et al., 2019; Winstone & Carless, 2020; OLC OSCQR, 2021; QM, 2023) and map out an instructional cycle with potential feedback encounters (Esterhazy et al., 2019) of different types and levels (Brooks et al., 2019). Understanding the intersection of the feedback process design into course design is crucial to enhance the overall learning experience (Esterhazy, 2019; Lipnevich & Panadero, 2021; Molloy & Boud, 2013; OLC OSCQR, 2021; QM, 2023; Stein & Graham, 2020).

Second, findings confirmed the need of a principled course alignment to strengthen the connection between course learning outcomes, assessment, learning activities, and all feed-“up” information in the online component of the blended course (McTighe & Willis, 2019; QM, 2023; Wiggins & McTighe, 2005). The cohesiveness of “feed-up” information with the several components of the online instruction is fundamental to orient learners towards purposeful actions. Third, the present findings confirmed the applicability of the Matrix of Feedback for Learning by Brooks et al. (2019), an evolution of the model by Hattie and Timperley (2007), applied in different learning settings, in our case undergraduate and blended learning environment and corroborated Moni's (2023) qualitative study on the EAP blended course design. Last, we agree with the need to embed interventions towards feedback literacy development (Carless, 2022; Carless & Boud, 2018; Malecka et al., 2020) to ensure a positive experience for all learners. The addition of instructor-mediated content (guiding and instructional

audios/videos) (Chan, 2020), as well as scheduled Q&A online synchronous or face-to-face sessions with students about the specificities of the online component of the course may assist and support learners along the life of the course. According to Carless (2022) and Little et al. (2023), only by smoothly developing feedback literacy learners may take advantage of feedback opportunities.

### ***Strengths, Limitations and Future Directions***

The present study aimed at exploring learners' perceptions of feedback in an undergraduate college blended course. It was one of the unique attempts to combine all three types and levels of feedback, using a large sample, and drawing information from an undergraduate English for Academic Purposes course where feedback is crucial for future college success. Effort was also made to ensure item questions were of reasonable length, clearly phrased using language employed in the course, and directly related to learners' experience in the online component of the blended course.

In addressing the limitations of this study, it is important to highlight two primary concerns. First, the relatively small sample size used in the survey potentially constrains the generalization of the findings. Second, the study may be subject to social desirability effect, where students may feel inclined to answer what is considered to be socially accepted or normal. Statistical tendencies may be monitored and researchers may therefore treat results with caution. Also, Likert-type, close-ended questions by definition restrict the number of options respondents have, while promoting evaluation rather than elaboration or explanations of responses. In this case, future research could include opportunities for respondents to explain their answers.

In keeping with this line of research, future efforts (currently in progress) will focus on triangulation from a larger sample size. More specifically, content analysis of the feedback process, faculty and student perceptions of the feedback, institutional student course evaluations, and student academic achievement in the online component of the course will be compared with the purpose of forming a broader, valid understanding of the affordances and weaknesses of the feedback design to support learner agency on feedback and learner academic success.

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## Appendix A

Table 1. Demographics N=135

<b>Demographics</b>	
<b>Gender</b>	<b>%</b>
Male	41.49
Female	58.51
<b>Age</b>	<b>%</b>
Under 18	5.2
18-20	78.6
21-23	11
24-26	2.2
Above 27	3
<b>College Credits</b>	<b>%</b>
0-30	89.7
31 above	10.3

## **Appendix B**

### **Survey on Student Perceptions of the Asynchronous Instruction and Feedback in a Blended Course**

#### **Informed Consent Form**

Please take your time and read this consent form carefully.

#### **Purpose of the survey**

My name is Author I am (faculty-status). I am conducting my PhD research in Education and e-learning, and I invite you to participate in a survey about student learning experience in the online asynchronous component of English for Academic Purposes (EAP) 1002 blended course.

#### **Procedure**

If you decide to participate, you will be asked to answer a set of 36 questions on your perceptions of instruction and feedback in the asynchronous activities of the blended course on Blackboard. Demographic information will also be collected. It will take approximately 20 minutes to complete this anonymous survey.

#### **Potential Risks/ Benefits**

Participation in this survey does not entail any known risks. If you agree to take part, you will have the opportunity to reflect on your learning perceptions about the EAP 1002 blended course, as well as to assist the Director of the Program with improving future students' learning experience in the online component of the course.

#### **Anonymity/Confidentiality**

Your participation is anonymous. Responses to anonymous surveys cannot be traced back to the respondent.

#### **Voluntary participation/Right to withdraw**

Your participation is voluntary. You have the option not to participate in this survey. If you decide to participate, you have the right to stop at any given time without any consequences. No compensation or reimbursement for participation is involved.

This survey has been approved by the Institutional Review Board of Deree - The American College of Greece.

If you have questions or concerns about this survey, you may contact me at (telephone, ext.) or e-mail me at (email address).

I confirm that I have read and understood all the information provided above. I agree to participate in this survey.

- I agree

## **A. Demographics**

### **1. What is your gender?**

Please select one answer

- Male
- Female
- Other

### **2. What is your age?**

Please select one answer

- Under 18
- 18 to 20
- 21 to 23
- 24 to 26
- Above 27

### **3. How many credits do you have?**

Please select one answer

- 0-30
- 31 and above

**B. The components of asynchronous part of the course**

- 1. In the asynchronous activities folders, Weekly Overviews help me understand the learning purpose of each online week.**

1= strongly agree  
2 = agree  
3 = neither agree nor disagree  
4 = disagree  
5 = strongly disagree

- 2. In the asynchronous activities folders, deadlines help me organize my study time.**

1= strongly agree  
2 = agree  
3 = neither agree nor disagree  
4 = disagree  
5 = strongly disagree

- 3. In the asynchronous activities folders, deadlines help me submit the online activities on time.**

1= strongly agree  
2 = agree  
3 = neither agree nor disagree  
4 = disagree  
5 = strongly disagree

- 4. In the asynchronous activities folders, models and examples help me complete the online writing activities.**

1= strongly agree  
2 = agree  
3 = neither agree nor disagree  
4 = disagree  
5 = strongly disagree

- 5. In the asynchronous activities folders, rubrics explain how my online activities will be evaluated.**

1= strongly agree  
2 = agree  
3 = neither agree nor disagree  
4 = disagree  
5 = strongly disagree

- 6. In the asynchronous activities folders, questions and ideas help me with my writing activities.**

1= strongly agree  
2 = agree  
3 = neither agree nor disagree  
4 = disagree  
5 = strongly disagree

- 7. In the asynchronous activities folders, Academic Writing Skills help me structure my essay.**

1= strongly agree  
2 = agree  
3 = neither agree nor disagree  
4 = disagree

5 = strongly disagree

- 8. In the asynchronous activities folders, techniques on how to identify misconceptions and common language mistakes help me in Academic Writing.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

- 9. In the asynchronous activities folders, suggested skills on how to avoid plagiarism in academic writing help me during the course.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

- 10. In the asynchronous activities folders, instructions generally help me organize my online work.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

4 = strongly disagree

**C. Instructor feedback on how I am doing in the asynchronous part of the course**

- 1. Instructor feedback helps me understand correct and incorrect paragraph structure.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

- 2. Instructor feedback helps me understand correct and incorrect essay structure.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

- 3. Instructor feedback helps me understand the correct or incorrect use of citations.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

- 4. Instructor feedback helps me understand the logic behind my ideas in my essay.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

- 5. Instructor feedback helps me understand if I followed the suggested prewriting, drafting, revising and editing process to write my essay.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

- 6. Instructor feedback helps me understand correct and incorrect use of grammar, vocabulary and punctuation in all my writing activities (e.g. paragraphs and essay).**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

- 7. Instructor feedback helps me understand if my work matches the criteria for success listed in the rubrics.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

- 8. Instructor feedback helps me understand if I am on track or off track with my online work and study.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

- 9. Instructor feedback helps me understand my progress in relation to the learning goals of the course.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

**D. Instructor feedback on what I have to do next to improve in the asynchronous part of the course**

- 1. Instructor feedback makes me understand how to improve the structure of my paragraphs.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

- 2. Instructor feedback makes me understand how to improve the structure of my essay.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

**3. Instructor feedback guides me on how to better organize ideas in my essay.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

**4. Instructor feedback encourages me to use the suggested prewriting, drafting, revising and editing process to write my essay.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

**5. Instructor feedback helps me improve the use of grammar, vocabulary and punctuation in all my writing activities (e.g. paragraphs and essay).**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

**6. Instructor feedback helps me understand how to further improve my writing skills.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

**7. Instructor feedback encourages me to review the rubrics to identify ways to improve my work.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

**8. Instructor feedback encourages me to use feedback comments to edit and improve my work.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

**9. Instructor feedback helps me make progress in relation to the learning goals with the asynchronous part of course.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

**E. Students' perceptions about the feedback practices in the asynchronous part of the course.**

**1. In the asynchronous part of the course, feedback practices encouraged me to ask for instructor and peer-feedback.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

**2. In the asynchronous part of the course, feedback practices encouraged me to self-assess my writing and activities before submission.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

**3. In the asynchronous part of the course, feedback practices encouraged me to use feedback comments to resubmit an improved version of my writing activities.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

**4. In the asynchronous part of the course, feedback practices encouraged me to give peer feedback.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

**5. Overall, I am satisfied with the feedback practices in the EAP 1002 asynchronous part of the course.**

1= strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

## Appendix C

Table 1. Cronbach's Alpha Values

Construct 1: items B1-B11		Construct 2: items C1-C9		Construct 3: items D1-D9		Construct 4: items E1-E5	
Reliability statistics		Reliability statistics		Reliability statistics		Reliability statistics	
Cronbach's Alpha	N of Items	Cronbach's Alpha	N of Items	Cronbach's Alpha	N of items	Cronbach's Alpha	N of Items
.892	10	.924	9	.923	9	.886	5

Table 2. Confirmatory Factor Analysis (CFA) Fit Indices

CFA Fit indices	
Index	Value
Comparative Fit Index (CFI)	0.998
Tucker-Lewis Index (TLI)	0.998
Bentler-Bonett Non-normed Fit Index (NNFI)	0.998
Bentler-Bonett Normed Fit Index (NFI)	0.990
Parsimony Normed Fit Index (PNFI)	0.917
Bollen's Relative Fit Index (RFI)	0.989
Bollen's Incremental Fit Index (IFI)	0.998
Relative Noncentrality Index (RNI)	0.998

Table 3. Confirmatory Factor Analysis (CFA) Other Fit Measures

CFA Other fit measures	
Metric	Value
Root mean square error of approximation (RMSEA)	0.044
RMSEA 90% CI lower bound	0.031
RMSEA 90% CI upper bound	0.055
RMSEA p-value	0.812
Standardized root mean square residual (SRMR)	0.064
Hoelter's critical N ( $\alpha = .05$ )	113.996
Hoelter's critical N ( $\alpha = .01$ )	118.882
Goodness of fit index (GFI)	0.991
McDonald fit index (MFI)	0.624
Expected cross validation index (ECVI)	

Table 4. Confirmatory Factor Analysis (CFA) Four Factors Loading

CFA Four Factor Loadings		95% Confidence Interval						
Factor	Indicator	Symbol	Estimate	Std. Error	z-value	p	Lower	Upper
Factor 1	B1	$\lambda_{11}$	0.833	0.032	25.829	< .001	0.770	0.897
	B2	$\lambda_{12}$	0.798	0.027	29.232	< .001	0.744	0.851
	B3	$\lambda_{13}$	0.812	0.028	28.804	< .001	0.757	0.868
	B4	$\lambda_{14}$	0.912	0.027	34.401	< .001	0.860	0.964
	B5	$\lambda_{15}$	0.682	0.033	20.641	< .001	0.617	0.747
	B6	$\lambda_{16}$	0.919	0.028	32.896	< .001	0.864	0.974
	B7	$\lambda_{17}$	0.934	0.026	35.812	< .001	0.883	0.985
	B8	$\lambda_{18}$	0.787	0.028	27.775	< .001	0.732	0.843
	B9	$\lambda_{19}$	0.696	0.029	24.297	< .001	0.640	0.752

**CFA Four Factor Loadings**

Factor	Indicator	Symbol	Estimate	Std. Error	z-value	p	95% Confidence Interval	
							Lower	Upper
Factor 2	B10	$\lambda_{110}$	0.448	0.035	12.936	< .001	0.380	0.516
	C1	$\lambda_{21}$	0.928	0.018	52.752	< .001	0.894	0.963
	C2	$\lambda_{22}$	0.960	0.018	52.486	< .001	0.924	0.996
	C3	$\lambda_{23}$	0.990	0.016	60.694	< .001	0.958	1.022
	C4	$\lambda_{24}$	0.849	0.022	39.203	< .001	0.806	0.891
	C5	$\lambda_{25}$	0.914	0.019	48.792	< .001	0.877	0.951
	C6	$\lambda_{26}$	0.872	0.023	37.116	< .001	0.826	0.918
	C7	$\lambda_{27}$	0.808	0.026	30.957	< .001	0.757	0.859
	C8	$\lambda_{28}$	0.924	0.019	47.963	< .001	0.887	0.962
Factor 3	C9	$\lambda_{29}$	0.876	0.021	41.245	< .001	0.835	0.918
	D1	$\lambda_{31}$	0.943	0.017	56.310	< .001	0.910	0.976
	D2	$\lambda_{32}$	0.968	0.016	60.791	< .001	0.936	0.999
	D3	$\lambda_{33}$	0.892	0.019	47.525	< .001	0.855	0.928
	D4	$\lambda_{34}$	0.951	0.017	56.440	< .001	0.918	0.984
	D5	$\lambda_{35}$	0.937	0.018	52.444	< .001	0.902	0.972
	D6	$\lambda_{36}$	0.958	0.017	54.965	< .001	0.924	0.993
	D7	$\lambda_{37}$	0.921	0.019	47.499	< .001	0.883	0.959
	D8	$\lambda_{38}$	0.935	0.018	52.153	< .001	0.900	0.970
Factor 4	D9	$\lambda_{39}$	0.861	0.020	43.157	< .001	0.822	0.900
	E2	$\lambda_{41}$	0.943	0.021	45.565	< .001	0.902	0.984
	E6	$\lambda_{42}$	0.968	0.021	47.013	< .001	0.927	1.008
	E7	$\lambda_{43}$	0.846	0.024	35.272	< .001	0.799	0.893
	E8	$\lambda_{44}$	0.954	0.022	44.007	< .001	0.911	0.996
	E9	$\lambda_{45}$	0.842	0.022	38.128	< .001	0.799	0.886

## Appendix D

Table 1. Construct 1: B1-B10 Analysis of Variance (ANOVA)

	<b>Sum of squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	28.942	2	0.795	1.394	0.299
Within Groups	78.763	132	0.596		
Total	107.705	134			

Table 2. Construct 2: C1-C9 Analysis of Variance (ANOVA)

	<b>Sum of squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	2.18	2	1.09	2.632	0.191
Within Groups	64.67	132	1.508		
Total	66.85	134			

Table 3. Construct 3: D1-D9 Analysis of Variance (ANOVA)

	<b>Sum of squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	2.388	2	1.194	2.405	0.192
Within Groups	65.12	132	0.493		
Total	67.508	134			

Table 4. Construct 4: E1-E5 Analysis of Variance (ANOVA)

	<b>Sum of squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	4.132	2	2.066	3.992	0.078
Within Groups	68.649	132	0.52		
Total	72.781	134			