



Ghaleb Rabab'ah

University of Sharjah, United Arab
Emirates
grababah@sharjah.ac.ae

Souad Belgrimet

The University of Jordan, Jordan
belgrimet.souad@gmail.com

Postgraduate instructors' formative feedback on EFL students' assignments in email communication: A gender-based study

The present study seeks to delve into the intricacies of feedback strategies adopted by male and female Jordanian EFL postgraduate university instructors when responding to their students' assignment submissions and inquiries via asynchronous communication mode, namely email communication, to see if there are any significant differences in their use of these strategies due to the gender of the instructors (male vs. female). A corpus of 180 emails was put under investigation (90 sent by male teachers and 90 sent by female instructors). These were analyzed quantitatively using a t-test to capture if there are significant differences in the use of formative feedback strategies between male and female Jordanian EFL instructors. The analysis was couched within a set of frameworks which all provided different types of corrective feedback, namely, Schute, (2008) and Narciss and Huth, (2004). Subsequently, a qualitative analysis followed in order to show how and why teachers implement a given formative feedback strategy. The findings indicate that female instructors employed more formative feedback strategies

in comparison with their male counterparts. The most frequently used strategy among female teachers was direct feedback, the provision of cues and information tutoring, while male teachers made more use of questioning and in a number of emails, they provided no feedback. In light of the findings of the present study, some pedagogical implications might come to the fore.

Keywords: Formative feedback; gender; email communication; assessment; asynchronous communication.

1. Introduction

The study of different forms of communication has been given ample attention due to their obvious significance to humans. Electronic communication has been increasingly attracting scholars' attention as a plethora of studies tackled the different dimensions of this new state-of-the-art type of communication. More than 25 years ago, Angel and Heslop (1994) suggest that the electronic mail is rapidly becoming the dominant form of written communication, and it has continued to maintain its status as a form of communication since then. It must be borne in mind though that the majority of studies that have been conducted on email communication have devoted due attention to the best ways of writing emails. Wilbers (1994), for example, states that the best email messages are the ones known by their brevity, clarity, natural language and personal tone in contrast with incomplete, ambiguous and disorganized emails. As a basic approximation, he suggests that emails resemble conversation in terms of friendly greetings and being instantaneous medium, but they lack other essential features to interpersonal communication, such as facial expression, body language and voice intonation.

As previously stated, among the different types of discourse in which emails are frequently used is educational discourse. This type of discourse comprises a wealth of information with regard to the different communication strategies adopted by instructors and students. Such an assumption opens up a path in the study of the different feedback strategies as assessment methods adopted by instructors when responding to their students' emails and assignments. Needless to say, assessment has long been the primary concern of a multitude of educational studies, and there has been substantial evidence that reports the crucial role played by assessment in improving the teaching/learning process (cf. Black & Wiliam, 2009). Assessment as a general term refers to the various procedures used by teachers to capture insights about the quality of students' performance. This will consequently result in the teachers' adjustment of their instructional practices in such a way that promotes successful learning (Norton, 2007).

In essence, the present study aims to find out the formative feedback strategies adopted by Jordanian EFL postgraduate university instructors in asynchronous communication mode, viz. email communication in response to their EFL learners' assignment submission and inquiries and see if there are significant differences due to the teachers' gender (male vs. female).

The rationale behind the exclusive analysis of electronic feedback provided to postgraduate students via email is to explore whether instructors adopt different or new strategies with advanced students in contrast with undergraduate students. Such a conclusion can only be drawn when comparing the results obtained in the present study with previous studies conducted with undergraduate students. To the best of the researchers' knowledge and the literature surveyed, none of the previous studies has investigated the impact of

gender on the formative feedback strategies used by teachers in a specific type of discourse, namely, Computer-Mediated Communication (henceforth CMC), and more specifically emails. Some studies have focused on the feedback provided by teachers via email to assess writing skills exclusively (Ferris and Roberts, 2001). The majority of previous studies have examined the feedback provided by EFL teachers in the classroom context (Ben Rabia, 2013).

The importance of the current study stems from the fact that it is a gender-based study. It is hoped that the findings will enrich the existing literature on formative feedback and consequently introduce teachers, university instructors, and stakeholders alike with a wealth of information regarding the existing formative feedback strategies that teachers as well as university instructors in the postgraduate programs may adopt to enhance their students' learning. In fact, the present inquiry is motivated by the belief that the set of feedback strategies used by teachers has a significant impact on students' learning (Ben Rabia, 2013). Similarly, the study may bring forth some pedagogical implications to teaching practice.

2. Rationale of the study

It is worth pointing out that the English department coordinators and programs at the University of Jordan appear to give priority to summative assessment. This is shown in the way they specify the marks of the mid-term exam, the assignments, term papers, presentations, and final exams. Conversely, the provision of formative feedback is given less attention as the feedback strategies that should be used by teachers are not specified either to the teachers or to the students. Consequently, the significance of the present study stems from highlighting both the prevalence of formative feedback strategies and the effect of gender on the deployment of such strategies.

As can be seen in the review of the related literature, previous research has examined formative feedback strategies and their impact on students' achievement, students' attitudes towards this feedback, and the effect of teachers' feedback on students' gender. Such studies have shown that feedback has a positive impact on EFL students' form and content. As far as the literature review is concerned, however, it is noticed that none of the studies has explored the effect of the teacher's gender on the type of formative feedback in email communication as used by teachers worldwide or specific to the Jordanian graduate programs' context.

From another perspective, the rationale behind investigating the impact of gender on the adoption of feedback strategies in the context of Jordanian universities is the belief that gender has a significant influence on the implementation and working of a given strategy, with whom the strategies are used, why and under which conditions they are used. In fact, it was inferred from previous studies (e.g., Narciss *et al.*, 2014; Timmers *et al.*, 2015; Maier *et al.*, 2016) that formative feedback has better impact on females than males. All these facts motivate the undertaking of this research in order to explore whether gender has a significant impact on teachers' use of feedback strategies. Male and female teachers might exhibit differences in their inclinations with regard to the best ways of providing formative feedback. Such differences might have dissimilar consequences on students' learning. Considering these facts appear to have the potential of bringing forth some pedagogical implications which might comprise the best ways for training male teachers on the one hand and female teachers on the other hand to promote successful learning on the part of the students.

3. Literature review

3.1 Formative feedback strategies

An alternative assessment procedure, which came to light as a reaction to its summative assessment counterpart, was aimed at raising learners' awareness towards lifelong learning. This procedure is known as formative assessment, which is also referred to in the literature as *assessment for learning*. Sandler (1998) defined it as "assessment that is specifically intended to provide feedback on performance, to improve and accelerate learning" (p. 77). Formative assessment is categorized under the heading of informal assessment (Brown & Abeywickrama, 2010). This type of assessment reached its peak with the development of educational curricula that recognized the importance of making learners responsible for their own learning to promote lifelong learning (Breen & Candlin, 1980).

A set of formative feedback techniques might be adopted with the intent of helping teachers and learners gain insights about the quality of the teaching/learning process. Shute (2008) states that formative feedback is a crucial aspect of formative assessment, which refers to the provision of different comments and suggestions by teachers to point out learners' strengths and weaknesses, aiming at improving students' skills and knowledge. Consequently, instructors may adapt their instructional practices in such a way that addresses learners' current weaknesses.

The rationale behind implementing feedback in the classroom is to enhance students' knowledge, skills and understanding towards certain areas of content and general skills (Shute, 2008). Shute also confirms that if implemented adequately, feedback may lead to high degrees of attainment on the part of the learners. For a better understanding of feedback, it is worth considering the purposes behind its implementation. As she states, the optimal goal behind the adoption of feedback is to enhance successful learning by directing learners' attention towards the specific points that should be reviewed. Similarly, Wiliam (2010) states that studies on feedback typically note that students' learning is accelerated by at least 50%. In a communication strategy training program, Rabab'ah (2015) concludes that feedback is very important because it resembles real life negotiation of meaning. In real life situations, interlocutors provide feedback to each other to arrive at their communicative goals. Wiliam and Leahy (2015) confirm that "the evidence suggests that attention to classroom formative assessment can produce greater gains in achievement than another change in what teachers do." (p. 14). In the same vein, Black and Wiliam (2009) add that previous research shows that improved formative assessment (or feedback) helps low achievers more than the rest and raises the overall attainment.

Given the important role of teachers' feedback in promoting the teaching/learning processes, a multitude of research has been conducted to examine the different techniques adopted by teachers. Accordingly, a number of taxonomies might be found in the literature. Kulhavy and Stock (1989), for instance, differentiate between two types of formative feedback: *verification* and *elaboration*. *Verification* encompasses a number of techniques. Instructors can inform learners about the correctness or incorrectness of an answer by directly saying "that is correct" or "that is incorrect" without further expanded information on what to do next. Teachers may additionally ask learners to try again giving them opportunities to correct or improve their response. Another type of verification lies in informing learners about the incorrect part of their response, known in the literature as 'error flagging'; however, for better results, teachers should not provide the right answer

until found by learners. *Elaboration* involves a number of techniques as well, namely, *topic contingent*, *response contingent*, *indirect feedback* and *giving cues* and *illustrations*. *Topic contingent*, for instance, is related to judging the extent to which learners have understood the topic at hand. In case a misunderstanding is manifested on the part of learners, teachers' re-explanation of the topic may take place. However, in *response contingent* instructors provide learners with the reasons behind the correctness or incorrectness of a response. An alternative technique within elaboration is *indirect feedback* in which the learners are indirectly guided towards the correct answer (or performance in a task) by giving a set of *cues* and *illustrations*. Narciss and Huth (2004) suggest a more general type of formative feedback integrating both aspects of verification and elaboration, namely, *information tutoring*.

Similarly, Black and Wiliam (2009) suggest five key strategies (KS) for formative assessment or feedback:

- KS 1. Clarifying, sharing and understanding learning intentions and criteria for success: It suggests that teachers get the students to really understand what their classroom experience will be and how their success will be measured.
- KS 2. Engineering classroom activities that elicit evidence of learning: Teachers develop effective classroom instructional strategies that allow for the measurement of success.
- KS 3. Providing feedback that moves students forward: Teachers work with students to provide them with the information they need to better understand problems and solutions.
- KS 4. Activating students as instructional resources for one another: As a teacher, involve your students with each other in discussions because working in groups can help improve students' learning.
- KS 5. Activating students as the owners of their own learning: Teaching students to monitor and regulate their learning increases their rate of learning.

A distinction is also made in the literature between direct and indirect corrective feedback in the classroom. Ferris (2006) refers to them as directive and facilitative, respectively. Directive and facilitative feedback refers to the process by which teachers only provide indications which in some way make students aware that an error exists, but they do not provide them with the correction. Direct feedback, on the other hand, is a strategy of providing feedback to students to help them correct their errors by providing the correct linguistic form.

Some researchers suggest qualities of constructive feedback. For example, Narciss and Huth (2004) believe that *information tutoring*, which is a type of formative feedback, may include judgment regarding response correctness, provision of some tips on how to improve and mistake identification all at the same time. According to Shute (2008), one of the characteristics of formative feedback is specificity. When delivering their feedback, instructors should provide a scrutinized account about learner's performance highlighting the strengths, limitations and future requirements. However, these should be communicated clearly to avoid possible misunderstandings and to enable learners to take the appropriate initiatives in response to the previously given feedback (*ibid.*). An effective formative feedback should be able to provide information which are used to correct learners' inappropriate learning strategies, errors and misconceptions (Mason & Bruning, 2001). Black *et al.* (2003) suggest that teachers should develop effective questioning techniques to facilitate students' analytical thinking, as well as helping them to provide their own answers. Black *et al.* (*ibid.*) also suggest that to develop formative questions, teachers should organize their

questions within three themes of introducing “frame questions” (the big idea); increasing “wait time” that gives students time to think and respond; and using “follow-up” questions or activities to ensure understanding (p. 42). In a similar vein, Wiliam (2011) considers questioning as an effective type of corrective feedback. He argues that asking questions in response to learners’ answers is a prominent technique of formative assessment, and it enables learners to activate their critical thinking and problem-solving abilities unless provided adequately. That is, teachers are required to pay close attention to the wording of their questions in order not to cause misunderstanding.

Based on the previously mentioned taxonomies of formative feedback strategies, the researchers of the present study developed their own categorization of feedback strategies, which are presented in Table 2 with their definitions and examples taken from the corpus (i.e. the emails put under scrutiny).

3.2 *Technology-mediated feedback in EFL*

Over the past three decades, a growing body of research was conducted to investigate the effect of formative feedback on students’ learning and achievement. The most influential study was the one undertaken by Black and Wiliam (1998) who analyzed 250 past studies conducted worldwide on the impact of formative feedback on learners’ achievement. They were diverse in terms of learners’ level of proficiency (beginners, intermediate and advanced) and in terms of subjects and modules (languages, science, psychology, etc.). The researchers concluded that a positive correlation exists between the provision of formative feedback and learners’ achievement. Furthermore, it shows the crucial role of formative feedback in improving weak learners’ performance in particular.

The findings of recent research have also lent support to previous findings reported in Black and Wiliam’s (1998) study. For example, Tanveer, Malghani, and Khosa (2018) sought to investigate the role played by written corrective feedback on students’ writing improvement and error reduction. The findings of the study revealed that the experimental groups improved and performed better than the control group in the post-tests following their provision with adequate written corrective feedback. Similarly, in order to explore the effect of context on the students’ commitment to end engagement with their teachers’ written corrective feedback, Han (2019) used a variety of data collection tools, namely, interviews, the participants’ pieces of writing, field notes and verbatim statements. The study showed that both the textual and socio-cultural levels of context provide opportunities for students to learn. In a similar vein, the students’ engagement was perceived as a reflection and initiative-taking in response to the opportunities allowed through the provision of written corrective feedback.

Some researchers were interested in investigating formative feedback in synchronous and asynchronous CMC, and its effect on various language aspects. Upon trying to explore the relationship existing between the provision of feedback and revision in the context of online teaching, Chiu and Savignon (2007) explored two EFL adult writers’ multi-draft compositions which were first provided with content-based feedback followed by form-based feedback. The results indicated that content-based feedback prompted more revisions on the part of the two EFL writers in comparison with form-based feedback. In a subsequent step, i-units; that is, the amount of information provided in every draft were computed. The findings indicated that the drafts that followed content-based feedback included more i-units than the drafts following form-based feedback. Question-form comment also proved

to elicit more direct revisions and corrections on the part of the participants. In a similar study, Samburskiy and Quah (2014) examined the extent to which direct and indirect form-based feedback is effective and efficient for the learners' improvement. The findings revealed that novice instructors infrequently provide form-focused online feedback. In a reverse direction, they extensively rely on the provision of content, meaning-based feedback.

Vahdani and Nemati (2014) examined the effect of feedback on Iranian EFL students' writing performance in the IELTS test. The results indicated that Iranian EFL students' writing ability improved as a result of the employment of writing feedback strategies. It also revealed that reformulation strategy was the most effective one.

Some other researchers have been interested in examining the effect of two types of feedback (implicit vs. explicit) on the development of students' grammar. For instance, Alipanahi and Mahmoodi (2015) examined the acquisition and retention of correct past form of irregular verbs by 60 pre-intermediate Iranian EFL students. To this end, the participants were divided into two experimental groups: while the first group received explicit feedback, the second group's treatment was implicit feedback. The study revealed that the explicit group outperformed the implicit group in the post-test, implying the efficiency of explicit feedback in contrast with its implicit counterpart.

In a similar standpoint, Li, Feng, and Saricaoglu (2017) investigated the short- and long-term effects of Automated Written Evaluation (AWE) on the development of grammatical correctness of students learning English as a second language. The findings revealed that intermediate-high and advanced-low levels were the most influenced by criterion feedback. Accordingly, as far as the short-term effects are concerned, criterion feedback helped them diminish their errors in eight out of nine categories. On the other hand, as for the long-term effects of criterion feedback, only one category of errors appeared to be reduced, namely, Run-on sentence and this was concluded by comparing the initial drafts of the first and the following papers. This pattern was observed with both intermediate-high and advanced-low levels. In a similar study, in a Java programming course, Qian and Lehman (2019) investigated the effect of targeted feedback in an automated assessment system for addressing common misconceptions of high school students. The analysis showed that targeted feedback students were more likely to correct the errors in their code. The qualitative analysis of students' solutions showed that when improving the code, students who received feedback made fewer intermediate type errors. This indicates that feedback facilitates learning as it reduces the number of errors made and leads to better solutions.

Ene and Upton (2018) examined the extent to which teachers' electronic feedback (TEF) has a positive impact on second language writing. The teachers' electronic feedback was provided both asynchronously via the provision of comments and asking for modifications in electronic drafts, and synchronously through teachers-students' chats. The results indicate that the teachers' electronic feedback proved to be effective and well implemented by the three teachers and cast light mainly on the content of the students' writing. Besides, the findings suggest that synchronous feedback effectively strengthen and empower teachers' asynchronous feedback.

In a very recent study, Suzuki *et al.* (2019) examined the effects of feedback explicitness and type of target structure on students' accuracy in revision and new pieces of writing. The experimental study targeted Japanese EFL learners' performance with regard to two main target structures, namely, the English indefinite article and the past perfect tense. Four groups received either explicit or implicit feedback with varying degrees of directness. The results reveal that both explicit and implicit types of written corrective feedback

contribute to the improvement of their performance and accuracy with regard to both target structures in subsequent pieces of the participants' writing. Also, a significant influence of explicitness proved to exist on the student's revision of the use of the past tense but not on the accuracy of the new pieces of writing.

From another perspective, upon trying to explore the existing interconnection between computer-mediated text-based and audio-based corrective feedback, students' preferred perceptual style and second language development, Rassaei (2019) conducted an experimental study in which 89 intermediate Iranian students were put under scrutiny. The results obtained from the study show the effectiveness of both text-based and audio-based computer-mediated corrective feedback as both contribute to the development of the participants' second language. In an attempt to compare the contribution of both types of computer-mediated feedback, the findings indicated that audio-based corrective feedback proved to be more effective.

Despite the comprehensive search for studies that investigated the effect of the teacher's gender on the types of formative or corrective feedback strategies, no studies have been found. However, some studies examined the effect feedback on students' gender. For example, by examining medical students seeking formative feedback, Sinclair and Cleland (2007) found that medical students, particularly males and poor students, may not use assessment feedback as a learning experience, and that female and better students were more keen on seeking out formative feedback that might be expected to help them continue to do well. In a recent study, Wagner, Rieger, and Voorvelt (2016) attempted to explore the influence of teachers' gender and ethnicity on the students' evaluation of teaching at university. The results indicated that being a female teacher has a negative impact on students' evaluation of teaching at university. Accordingly, the findings indicated that female teachers are less likely to attain promotion to associate professor in contrast with their male counterparts. Conversely, as far as ethnicity is concerned, the results demonstrated that there was no correlation between teachers' ethnicity and the students' evaluation of teaching. Narciss *et al.* (2014) found that females benefited from all feedback conditions more than males. Similarly, Timmers, Walraven, and Veldkamp (2015) found that feedback intervention caused better performance in the following information-seeking task by females, and students who clearly formed goals for their future information-seeking behavior. Maier, Wolf, and Randler (2016) found a gender effect moderating the feedback effect on learning, which supports previous research by Narciss *et al.* (2014) and Timmers *et al.* (2015). A similar study was conducted by Ishoaei and Kafipour (2016), who examined the effect of gender and some other variables on Iranian EFL teachers' feedback. The researchers found that gender, experience, educational setting and proficiency level did not affect the participants' response regarding the corrective feedback.

4. Research method

4.1. Corpus

With the intent of achieving the aims of the study, some EFL students pursuing their post-graduate studies were asked to provide the researchers with their EFL teachers' emails following an assignment submission in which they received formative feedback. The emails under investigation were communicated at a Jordanian university during the second semester of the academic year 2018/2019. A total of 180 emails, written by six male and six female

EFL teachers, were studied. 90 emails were sent by male teachers and 90 emails were sent by female teachers in response to their students' work submissions and inquiries during the course.

4.2. Participants

The Jordanian university instructors whose emails were put under scrutiny were all associate and full professors of linguistics teaching at the University of Jordan. Their first language is Jordanian Arabic while English is their second language. Their teaching experience ranges from 15 to 30 years. All of them are graduates of US or UK universities, and they have been teaching both undergraduate and graduate students. The instructors whose emails were analyzed teach the following modules: syntax, research methods, sociolinguistics and literary studies. It is noteworthy that the researchers first get the teachers' consent for putting their emails under scrutiny before actually analyzing them. Table 1 below shows the number of professors and number of emails analyzed.

Table 1. Distribution of EFL teachers and number of emails under investigation

Gender (male/female)	No.	Number of emails studied
Male Professors	6	90
Female Professors	6	90
Total	12	180

4.3. Data analysis

In an attempt to analyse the findings obtained in the present study, the researchers adopted the classifications of formative feedback from previous studies (cf. Kulhavy & Stock, 1989; Narciss & Huth, 2004; Shute, 2008; Black & Wiliam, 2009; Wiliam, 2010), which are presented in Table 2 with their definitions and examples taken from the corpus.

After collecting the corpus, the feedback strategies adopted by male and female professors were found, highlighted in context and tabulated in an excel sheet. In order to ascertain that our classification is reliable, it was given to two raters, who are experts in the field. Any disagreements found were discussed between the researchers and the raters to arrive at the final list. Finally, frequencies of occurrence and percentages were calculated for each feedback strategy used by male professors on the one hand and female professors on the other hand. Then, a t-test was used in order to find if there are any significant differences in the use of feedback strategies due to gender (male vs. female). A qualitative analysis followed in order to show how and why teachers implement a given formative feedback strategy.

Table 2. Categories of formative feedback strategies

Strategy type	Definition	Examples from the corpus
Correct/incorrect	It refers to the provision of feedback regarding the extent to which the content of the students' emails is correct. Sometimes, questions are used to indicate that what the student did was wrong.	<i>Where in the textbook that we are dealing with have you found a treatment of tense markers?</i>
Asking questions	When responding to students' emails, teachers ask questions regarding the content sent.	<i>How did you get your numerical data for those two categories?</i>
Error flagging	It refers to the indication that there is a problem with a given part of the students' work.	<i>Table 1: add examples where the prefix does not undergo voicing.</i>
Topic contingent	It mainly refers to teachers' comments regarding the degree to which the topic selected is in line with the teachers' requirements.	<i>This is not linguistics.</i>
Response contingent	This category of formative feedback holds the promise of giving comments concerning the extent to which the students have appropriately understood the questions asked by their teachers.	<i>I asked you a question which you didn't answer.</i>
Giving cues	This category involves the provision of comments at the heart of which are hints and cues that help the students identify their weaknesses, and subsequently improve their work or performance.	<i>For the rationale, even if there is no theoretical framework, you have to explain the logic behind the usefulness of each item.</i>
Information tutoring	It includes information not only about the correctness and incorrectness of the work, but also it provides rich comments regarding the reasons behind the incorrectness and incorrectness of students' contributions, and it sometimes gives hints on how to improve.	<i>If you talk about benefits, limitations and reflections before you start; it would be unreliable. The only thing you can talk about is the significance of your study (instead of the term benefits).</i>
Direct feedback	It refers to identification of grammatical and spelling mistakes and their correction by teachers.	<i>Avoid too long sentences. Reformulate!</i>
Indirect feedback	Teachers only give hints regarding the place where the mistake or the inconvenience lies in the students' previously sent email.	<i>This email has no body.</i>
No feedback	This strategy is characterized by teachers' comments which only signal the reception of the student's email.	<i>Received with thanks.</i>

5. Results and discussion

5.1. The formative feedback strategies adopted in male and female EFL university instructors' emails

As early mentioned, 180 emails were analyzed quantitatively to find out which formative feedback strategies were mostly used, and consequently determine whether there are significant differences in the use of formative feedback due to the professor's gender. Table 3 presents the total numbers of formative feedback strategies according to gender.

Table 3. Total numbers of formative feedback strategies according to gender

Formative feedback strategies	Number	Percentage
Males	98	32%
Females	208	68%
Total	306	100%

Table 4. T-test results of gender differences in the teachers' use of formative feedback strategies

Strategy type	Gender	N	*Mean	SD	T	df	Sig. (2-tailed)																																																																																																								
Correct/incorrect	Male	13	.1429	.35173	-.585	194	.559																																																																																																								
	Female	16	.1735	.38060				Asking questions	Male	19	.2041	.40510	-.346	194	.729	Female	21	.2245	.41939	Error flagging	Male	5	.0816	.27521	.552	194	.581	Female	6	.0612	.24097	Topic contingent	Male	4	.0612	.24097	-1.895	194	.049	Female	12	.1429	.35173	Response contingent	Male	4	.0816	.27521	-.722	194	.471	Female	10	.1122	.31729	Giving cues	Male	13	.1531	.36190	-3.045	194	.003	Female	31	.3367	.47502	Information tutoring	Male	11	.1531	.36190	-2.262	194	.025	Female	26	.2857	.45408	Direct feedback	Male	7	.0918	.29028	-10.161	194	.000	Female	63	.6633	.47502	Indirect feedback	Male	5	.0816	.27521	-2.475	194	.014	Female	18	.2041	.40510	No feedback	Male	17	.2143	.41244	2.904	194	.004
Asking questions	Male	19	.2041	.40510	-.346	194	.729																																																																																																								
	Female	21	.2245	.41939				Error flagging	Male	5	.0816	.27521	.552	194	.581	Female	6	.0612	.24097	Topic contingent	Male	4	.0612	.24097	-1.895	194	.049	Female	12	.1429	.35173	Response contingent	Male	4	.0816	.27521	-.722	194	.471	Female	10	.1122	.31729	Giving cues	Male	13	.1531	.36190	-3.045	194	.003	Female	31	.3367	.47502	Information tutoring	Male	11	.1531	.36190	-2.262	194	.025	Female	26	.2857	.45408	Direct feedback	Male	7	.0918	.29028	-10.161	194	.000	Female	63	.6633	.47502	Indirect feedback	Male	5	.0816	.27521	-2.475	194	.014	Female	18	.2041	.40510	No feedback	Male	17	.2143	.41244	2.904	194	.004	Female	5	.0714	.25886								
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	Female	10	.1122	.31729				Giving cues	Male	13	.1531	.36190	-3.045	194	.003	Female	31	.3367	.47502	Information tutoring	Male	11	.1531	.36190	-2.262	194	.025	Female	26	.2857	.45408	Direct feedback	Male	7	.0918	.29028	-10.161	194	.000	Female	63	.6633	.47502	Indirect feedback	Male	5	.0816	.27521	-2.475	194	.014	Female	18	.2041	.40510	No feedback	Male	17	.2143	.41244	2.904	194	.004	Female	5	.0714	.25886																																												
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*Mean is out of 1.

Table 3 shows that when providing feedback on graduate students' term papers and assignments, the female university professors used double the number of formative feedback strategies (208), accounting for 68% of the recorded instances, while male professors

recorded only 98 instances (32%). This might indicate that female university professors of EFL are keen on providing feedback to their students to improve their work or submitted assignments. Table 4 presents the t-test results of the types of formative feedback strategies used by male and female university professors.

The results of the quantitative analysis presented in Table four indicate that a variety of formative feedback strategies were used via email by male and female EFL university professors. The most significant finding is that there are differences in the use of individual formative feedback strategies due to gender. The table also shows that there are significant differences in most feedback strategies ($\alpha 0.05$), namely, topic contingent, response contingent, giving cues, information tutoring, direct feedback, and indirect feedback in favor of female EFL professors. This indicates that female teachers used more feedback strategies in response to assignments and inquiries sent via email to them. However, significant differences were also found in 'no feedback', which was in favor of the male professors, indicating that they were not inclined to provide their students with feedback regarding their assignments. In many emails, it was noticed that male professors were replying by saying "Thanks and received."

Another significant finding is that male and female instructors adopted different formative feedback strategies. As noticed, the highest frequently used feedback strategies adopted by the females were "direct feedback" (63), "giving cues" (31), "information tutoring" (26), and "asking questions" (21). However, the most frequently used feedback strategies by the males were "asking questions" (19), "no feedback" (17), "correct/incorrect" (13), and "giving cues" (13). In the following section, we will discuss the formative feedback strategies in context by giving examples taken from the corpus.

5.2 Formative feedback strategies in context

The results have shown that male and female Arabic-speaking EFL university professors adopt a variety of formative feedback strategies when responding to their postgraduate students' questions regarding their assignments and inquiries. Each formative feedback strategy is discussed and illustrated with some examples from the corpus.

5.2.1. Provision of feedback regarding correctness/incorrectness. As previously mentioned, the provision of feedback regarding the extent to which the content of the students' emails is correct or not together with questioning and error flagging all fall under the general heading of verification strategies (Shute, 2008). The feedback provided regarding the correctness and incorrectness of the content was adopted in both male and female professors' emails to a certain extent (13 and 16 instances, respectively). The professors provide comments stating what has been sent or done by the student is correct or incorrect. By way of illustration, examples such as "the paper is fine," "your observation scheme is correct," "proceed," "approved" and "good," "I read it and I think it is ok," "ok, go ahead" indicate that the teachers are satisfied with what the student has already submitted. The professors' approval indicates that what the postgraduate student has done or submitted is correct to a certain extent, while disapproval means that the student's submission or assignment is incorrect.

5.2.2. Asking questions. Questioning was the most frequently used feedback strategy in male teachers' emails (19 instances representing 19.38% of the total number of feedback strategies used). A close analysis of the teachers' responses to students' assignments via

email encompassing questions reveals that questions were employed for a couple of purposes. They were used when the teachers aim to develop the students' problem-solving skills, fully understand what the students were talking about and/or request for clarification in order to respond adequately and appropriately to their students' inquiries. The following instances illustrate this strategy:

1. The rule at the top of p. 5: is this voicing rule limited to this situation, i.e., only affecting the prefix /t/ when followed by a voiced sound?
2. Could you tell me what the relation between EPP and pro is in your dialect or any other one?
3. You have not given a single example of garden path sentences. Why are they given this name? Why do you think your results will be different from previous studies?

As shown, the male professors were targeting the development of their graduate students' critical thinking and problem-solving skills and abilities. A case in point is example 3 above in which the teacher attempted to raise the students' attention to the insufficient information provided in his/her work in addition to the significance of the student's research in contrast with the previously conducted pieces of research in the same field. By doing so, it is believed that students will acquire critical thinking skills that will help them improve their research skills in the future. This seems to be in line with Wiliam's claim (2011) that questioning plays an effective role as a feedback strategy in promoting the students' cognitive abilities. However, questions such as "where do you find case assignment in your dialect?," "what is this attachment?," "what types?" and "which one?" aimed at requesting for clarification and gaining information from the students when the teachers did not understand a particular point.

The Jordanian female university professors of EFL similarly employed a question strategy, which is the fourth frequently used strategy by females (21 instances). Instances such as "so, you didn't use observation to tick the last box?," "how did you get your numerical data for those two categories?" and "do the groups 1, 2, 3 and 4 refer to the different modules you observed?" indicate that the female professors use questions primarily to receive clarifications from the graduate students, and subsequently provide them with appropriate feedback.

5.2.3. Error flagging. This strategy was among the least formative feedback strategies used by both groups of professors (5.10% for males and 2.88% for females). It was only used five times by male professors and six times by female professors. At the core of this strategy is the indication that there is a problem in a given part of the graduate students' work. It is noteworthy that this was realized either implicitly or explicitly. Both male and female professors used error flagging strategies like:

1. To begin with, you should omit all the repetitions that exist in your third chapter.
2. In the introduction, the part on dissertation division (structure of the work) is about the content of each chapter of the dissertation.

However, male professors used feedback like:

1. Always mention your section.

2. Also avoid redundant features in the formulation of the rule.

The ultimate goal of using such a strategy is to raise the students' awareness about some problems in specific parts of their work in order to improve it. This goes in accordance with Shute's (2008) claim that error flagging pertains to the verification aspects of feedback which provide students' with an opportunity to locate and subsequently overcome their weaknesses.

5.2.4. Topic contingent. Topic contingent strategy was mostly encountered in Jordanian EFL professors' emails responding to the graduate students' emails whose aim was the selection of a topic for a term paper or a paper to present in class. It mainly characterizes their professors' comments regarding the degree to which the topic selected is in line with the course or research requirements. This formative feedback strategy was mostly used by female professors (12 instances in comparison with 6 found in male professors' emails). The results of the t-test (Table 4) show significant differences between the two groups in favor of the female professors at α 0.05. By way of illustration, the following expressions were given by the male teachers:

1. The task is PhD not MA.
2. This is more education than linguistics.
3. We haven't touched on this topic yet.

The Jordanian female professors, on the other hand, employed statements like "Concerning the topic 'The effects of task-based language teaching on EFL university students' speaking performance,' I find it interesting and feasible."

5.2.5. Response contingent. This category of formative feedback holds the promise of giving comments concerning the extent to which the students have appropriately understood the questions asked by their teachers. This category was occasionally used especially by female professors (10 instances in comparison with 4 for male professors). The results of the t-test (Table 4) show significant differences between the two groups in favor of the female professors at α 0.05. Among the professors' comments identified in this category were the following:

1. My question was about Brown and Levinson.
2. Perhaps you could limit your discussion to one type only.
3. Your summary should include the title of the paper, author, journal and year of publication.

As may be seen, at the heart of this feedback strategy is the desire to highlight the mistakes that the students made, which lies in misunderstanding the teacher's response or previous comment, and to highlight the points they should correct.

5.2.6. Giving cues. This formative feedback strategy was among the most frequent strategies identified in both groups of university professors of EFL. The analysis revealed 31 instances in the female professors' emails, whereas 13 were only found in the male professors' emails. The results of the t-test (Table 4) show significant differences between the two groups in

favor of the female professors at $\alpha 0.05$. It is worth pointing out that this was the third most feedback strategy used by male professors. Accordingly, this category involves the provision of comments at the heart of which are hints and cues that help the students identify their weaknesses, and subsequently improve their work or performance. The following are feedback examples taken from the corpus:

1. If you could not observe that category, so just remove it from your observation scheme and so add another tool: the content analysis of test papers with that category as a focus for analysis.
2. Try to draw brief comparisons between the different results.
3. If you could ask the teacher to give you the test papers of the whole group, this would be more valid.

As can be seen, the teachers give the students some hints about what to do. Their comments display the usefulness of such remarks on students' achievement since they function as guiding paths towards better performance and improvement.

5.2.7. Information tutoring. The formative feedback strategy into question was the third frequently used strategy found in the female professors' emails and the fourth encountered in the male professors' emails, 26 and 11 instances, respectively. The results of the t-test (Table 4) show significant differences between the two groups in favor of the female teachers at $\alpha 0.05$. In this respect, this strategy is combinatory in the sense that it includes information not only about the correctness and incorrectness of the work, but also it provides rich comments regarding the reasons behind the correctness and incorrectness of students' contributions, and it sometimes gives hints on how to improve. Among the female professors' comments are the following:

1. Your topic includes a second variable (the impact on students' motivation), you can by no means investigate this variable using observation. The only way would be a questionnaire and an interview to have even more details about its impact on students' motivation to learn
2. If you talk about benefits, limitations and reflections before you start; it would be unreliable. The only thing you can talk about is the significance of your study (instead of the term benefits)

On the other hand, the male professors' emails included information tutoring in the form of the following comments:

1. A Jordanian is a Jordanian if he reads news in Jordan or elsewhere. If a Jordanian station has been chosen, no student can choose any Jordanian newsreader regardless of where he/she works.
2. You must have read the first chapter in Hornstein's about the lack of good reasons to posit two structural representation levels: the deep and surface structure, because some facts about binding show that binding takes place at different levels in the derivation. So, you can't now come to argue for binding taking place at one particular level rather than another.

As the abovementioned examples illustrate, the professors of graduate courses provided both their evaluation regarding the appropriateness of the response and the reasons for that in addition to the provision of guidance concerning what the student should do to improve his/her work. It was noticed that the provision of guidance sometimes precedes the evaluation related to appropriateness. In female professors' emails, for instance, they provided first their evaluations and then the steps which should be followed in order to improve their work. However, a dissimilar pattern was identified in the male professors' emails as they first provide a set of arguments and subsequently point to the problem in their students' contribution. A principle along these lines is the pertinence of information tutoring as a formative feedback. This seems to be in accordance with Narciss and Huth's (2004) claim that elaborated forms of feedback including information tutoring appear to be highly significant in helping the students identify their strengths and weaknesses in order to double their efforts wherever needed.

5.2.8. Direct feedback. This formative feedback strategy was the most frequently adopted by female professors. In fact, they tended to pay close attention to the grammatical and spelling mistakes found in the students' emails (63 instances in contrast with 7 instances found in male professors' feedback). The results of the t-test (Table 4) show significant differences between the two groups in favor of the female teachers at $\alpha 0.05$. This indicates that the male professors pay little attention to the mistakes that their students made. As mentioned by Ferris and Roberts (2001), direct feedback is characterized by the identification of grammatical and spelling mistakes and their correction by teachers. The following entries characterize the use of formative feedback strategy into question by female teachers: "Avoid too long sentences. Reformulate!", "Unclear! Reformulate," "that' instead of 'tgat'." However, male professors' direct feedback included instances, such as "you need to learn to submit one page," "Please use correct spelling and language when you send."

5.2.9. Indirect feedback. By using the indirect feedback strategy, the university instructors solely give hints regarding the place where the mistake or the inconvenience lies in the students' previously sent email. As sketched in Table 4, both male and female professors adopted this strategy. As noticed, the female professors used this strategy 18 times while male professors employed it only 5 times. The results of the t-test (Table 4) show significant differences between the two groups in favor of the female professors at $\alpha 0.05$. This may be explained on the basis that they tend to provide more feedback in contrast with male professors. This category includes instances, such as "not in line with IJAES," "This email has no body," "I am afraid you are not applying the IJAES style sheet," "Not a proposal," "It doesn't even have a title." These appear to be aimed at implicitly raising the student's attention to his/her weaknesses without providing guidance regarding what to do.

5.2.10. No feedback. A salient result which was characterized in Table 4 is the non-provision of feedback by male teachers (17 instances in contrast with 5 occurrences in female teachers' data). The results of the t-test (Table 3) show significant differences between the two groups in favor of the male professors at $\alpha 0.05$. In fact, the non-provision of feedback is characterized by the professors' comments which only signal the reception of the student's email. This is mainly represented by the employment of expressions, such as "received," "well noted," and "received with thanks" without further specifications or remarks regarding the content. This may be explained on a number of grounds. One of the explanations could

be the great number of students in each graduate course (30–40 students in each class, which makes it difficult for the teacher to give instant feedback regarding the assignment submission. A plausible assumption would also be the teacher's desire to give a chance for the student to proofread his/her email and personally identify his weaknesses without the teachers' help. Similarly, it seems tempting to assume that by not providing any feedback, the teacher aims to encourage self-assessment. Put in other words, the teacher provides the students with an opportunity to identify their strengths and weaknesses on their own. In fact, self-assessment appears to be an effective strategy which came to the fore in recent years holding the promise of having independent and autonomous learners who no longer rely on the teacher's guidance. Such claim lends further support to Brown and Abeywickrama's (2010) call for the integration of self-evaluation which promotes learners' engagement in the evaluation of their own process, the identification of their strengths and weaknesses and the adoption of remedial strategies to target their needs.

As may be seen, the findings indicate that female university instructors tend to use more formative feedback strategies than their male counterparts. Additionally, differences in the formative feedback strategies used were identified. In fact, while female professors tended to make extensive use of direct feedback to correct the students' grammar and spelling mistakes, male professors adopted questioning and no feedback as strategies that are believed to prompt the students' critical thinking abilities. Another important point that emerged from the findings is that female professors give due attention to the form in contrast to the content provided by the students. Such a fact may have important implications on the professors' use of formative feedback. Indeed, both male and females may balance the amount of their comments regarding both the form and content of their students' emails. By doing so, they may ensure a thorough provision of feedback which would undoubtedly contribute to the enhancement of their students' learning.

6. Conclusion

With the development of educational curricula, ample attention was paid to the set of CMC feedback strategies employed by EFL teachers to promote their students' learning process. Accordingly, the present study was intended to delve into the intricacies of the provision of formative feedback strategies by Jordanian male and female university instructors by focusing on one form of asynchronous communication; that is, email communication. The results demonstrate that female Jordanian EFL university tutors tended to employ formative feedback strategies more frequently than male professors, and these differences were significant in seven strategies out of ten. The most frequently identified strategy employed by the female professors is direct feedback at the core of which is the correction of the grammatical and spelling mistakes. This was followed by the provision of cues, information tutoring and questioning strategies. In a reverse direction, the male Jordanian EFL professors made much use of questioning, which was the most widely used in addition to the non-provision of feedback and the use of cues. However, it is worth mentioning that such repair strategies serve different purposes ranging from the teachers' desire to develop the critical thinking and problem solving abilities of their students through guiding them to improve in addition to their wish to make their students more independent and autonomous, which is their ability to assess themselves without their teachers' support.

Due to the undertaking conditions of the present study and the data obtained, need is felt for supporting the present study findings by carrying out further research with a larger **101**

corpora and a greater number of participants. Such supplementary inquiry would approve the degree to which the yielded data are acceptable and representative. Additionally, future investigations can utilize a variety of instruments, such as interviews and open-ended questionnaires to investigate the attitudes of both teachers and students with regard to the provision of feedback via emails.

For an extended knowledge regarding the formative feedback strategies used by teachers, forthcoming studies might explore the adoption of feedback in other forms of CMC including both synchronous types of communication such as WhatsApp conversations and asynchronous forms of communication such as the feedback provided to students in different educational fora. These may constitute a corpus from which different kinds of data may be put under scrutiny. Put in other words, comparative studies may be conducted regarding the types of feedback strategies adopted in synchronous and asynchronous forms of CMC. By doing so, differences and similarities may be highlighted.

The findings of comparable studies appear to provide teachers, students, and stakeholders alike with a wealth of information regarding the best initiatives of using effective and efficient formative feedback strategies whenever needed via the use of CMC. A case in point is the need for educational curricula to specify the feedback strategies that should be implemented by EFL teachers both in the classroom and when using emails. These may include the adoption of self-assessment as a means for promoting students' autonomy. In a similar standpoint, the study findings point out to the dire need for teachers to reflect on their formative feedback strategies in order to track the extent to which these strategies are helpful and consequently enhance their students' learning.

7. Pedagogical implications

In light of the findings of the present study, the researchers suggest a number of recommendations for EFL teachers. First, it seems tempting for EFL university instructors to use formative feedback strategies either in traditional classrooms or CMC. The yielded results show that online assessment has countless benefits and should consequently be adopted more frequently by instructors. In fact, online evaluation enables teachers to work with a great number of students in a short period of time owing to its revolutionary options and its facilities encountered in the field of information science. In the same vein, teachers are able to save their students' work for further reference. From another perspective, students are said to feel more uncomfortable in face to face assessment. Online assessment thus is an adequate assessment alternative with such students. Nevertheless, in order to fully benefit from such advantages, both teachers and students need to be trained to acquire appropriate e-learning skills.

Likewise, the results obtained from this study demonstrate the need for students to be well informed about their responses and guided by instructors. Shute (2008) argued that when delivering their feedback, instructors should provide a scrutinized account of learners' performance that clearly highlights the strengths, limitations, and future requirements to avoid possible confusions. In parallel, students should be trained how to interpret and take full advantage of their teachers' formative feedback. As such, teachers may devote some time of the lesson to guide their students on how to take full advantage of their feedback.

Finally, it seems necessary for teachers to reflect on their formative feedback strategies. To become effective agents of change, teachers are required to examine the extent to which their continuous evaluation in response to their students' performance helps students

improve. In this respect, teachers may have an overview regarding their students' needs resulting in the adoption of appropriate remedial strategies. Thus, teachers may keep a journal in which observations made on a continuous basis can be recorded. Such an initiative can help them decide which assessment procedures work best with their students.

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Author biodata

Ghaleb Rabab'ah is Professor of Linguistics at the University of Sharjah. He has published many papers in Linguistics, Applied Linguistics and ESL in international journals, such as *Journal of Pragmatics*, *Poznan Studies in Contemporary Linguistics*, *Journal of Psycholinguistic Research*, *JALT CALL Journal*, *Journal of Politeness Research* and *Research in Language*. He is a member of the editorial board of two Scopus indexed journals, namely, *International Journal of Arabic-English Studies* (IJAES) and *Jordan Journal of Modern Languages and Literature* (JJMLL).

Souad Belgrimet is a PhD candidate in the Department of English Language and Literature at the University of Jordan. Her research interests are discourse analysis and teaching English as a Foreign/Second Language.

