Using Microsoft Applications-Based Dynamic Assessment for Improving Student Teachers` EFL Speaking Skills and Reducing their Anxiety

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Introduction

Language is the essential means humans use to communicate and exchange information. It is also a way by which humans convey their feelings, emotions, and beliefs. This makes it a must to explore it carefully and look for the best methods of enhancing and teaching its skills. Language is made up of four main skills, namely listening, speaking, reading, and writing. A student may be said to have good communication and effective interpersonal skills only when these four skills blend together.

Speaking is considered one of the most important skills in any language. Efrizal (2012) suggests that speaking is very important for the interaction between people everywhere and every day. Furthermore, in the field of education, Sadiku (2015) believes that speaking is as useful as the other language skills since it is regarded as the expression of what students read, write, and listen to.

Despite the fact that speaking in EFL is important, it is difficult to master due to many reasons. The first reason that makes students reluctant to speak a foreign language is inhibition. Students usually become anxious about committing mistakes and being criticized as they speak. (Leong & Ahmadi, 2017). Another reason is lack of participation which can be attributed to the fact that “some students dominate the whole class while others talk very little or never speak”. (p.36). A third reason is anxiety, which affects English speakers’ oral performance negatively. (Woodrow, 2006).

Speaking anxiety results from many factors. Hanifa (2018) classifies these factors into three categories: a) cognitive factors such as the ones related to topical knowledge and processing demands b) affective factors that are related to emotions towards the participants and the topic c) performance factors that have to do with planning and rehearsal time, and time pressure. Tuan and Mai (2015) and Kasbi and Shirvan (2017) indicate that the lack of topical knowledge as a cognitive factor is a main reason for speaking anxiety that causes students to reduce their speaking or not speak
This is supported by Mouhoubi-Messadh (2017), who believes that when students deal with topics that are beyond their ability, they are more likely to be hesitant to participate in the discussion. Regarding the affective factors that increase speaking anxiety, Alswat (2016) and Mouhoubi-Messadh (2017) suggest that most students get afraid of speaking in front of their teachers because they are usually anxious about the negative reactions of their teachers. As for performance factors, Mak (2011), Sadeghi et al. (2013), and Tuan and Mai (2015) believe that anxiety can be generated by ill-preparation of the oral productions of the students. In addition to that, Brooks and Wilson (2006) identify lack of practice opportunities as the reason why students were unwilling to speak.

One way to facilitate speaking assessment and instruction and reduce speaking anxiety is said to be the use of dynamic assessment in language learning classes, which is an approach to teaching that integrates assessment with instruction through intervention, or what is called ‘mediation’ presented by the teacher to the learners in order to facilitate instruction and reduce the anxiety that frequently results from undergoing speaking tasks.

Dynamic assessment is derived from the early work of Lev Vygotsky’s concept of the Zone of Proximal Development (ZPD). According to Vygotsky (1978), the Zone of Proximal Development (ZPD) represents:

“The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers.” (p. 86).

In light of ZPD, dynamic assessment focuses on discovering the potential capabilities of learners in addition to the actual ones. Lidz and Gindis (2003) define dynamic assessment as: “an approach to understanding individual differences and their implications for instruction that embeds intervention within the assessment procedure. The focus of most dynamic assessment procedures is on the process rather than the product of learning” (p. 99). Poehner (2008) explains dynamic assessment (DA) by stating that it is neither a method nor an instrument of assessment, rather it is a framework that regards teaching and assessment as an integrated activity that supports the development of learners. Dynamic assessment is based on the idea that the capabilities of a person can be learned by offering support and guidance through the assessment process itself in the form of
instruction or mediation during the assessment tasks. (Yakisik & Cakir, 2017).

As a means of facilitating the implementation of dynamic assessment in teaching and assessing the speaking skill, it is highly recommended to integrate dynamic assessment with modern technology. With regard to learning, technology encourages individual learning by providing opportunities for students to learn according to their needs and their different learning styles, consequently helping them to learn at their own speed, study and prepare for tests in their own way, and reduce their learning anxiety that may result from face-to-face interaction with teachers and peers.

One of the most widely-used technological tools is Microsoft Office 365 applications. According to Mercurio (2018), Office 365 is “Microsoft’s SaaS (Software as a Service) offering for email, collaboration applications, and Office 2016” (p.3). Office 365 includes a large number of different applications that are useful and can be used in business and educational purposes. Some of the Microsoft Office 365 applications include Word, Excel, PowerPoint, OneNote, Forms, Sway, Teams, Planner, OneDrive, and Yammer (Mercurio, 2018; Wilson, 2019).

**Review of Literature and Related Studies:**

**Speaking:**

Speaking as a main language skill happens to be the most significant skill in almost all languages since it is the means through which people communicate with one another, and this communication process is in fact the major goal of all languages. Speaking is all about interaction between two or more participants for the purpose of communicating meaning. This is clear in Burns and Joyce (1997), who define speaking as “the interactive process of constructing meaning that involves producing, receiving, and processing information”. Nunan (2003) also states that “Speaking is a productive aural/oral skill and it consists of producing systematic verbal utterances to convey meaning” (p. 48), while Thornbury (2005) suggests that speaking is a collaborative procedure that necessitates the capacity to work cooperatively in managing speaking turns.

Hinkel (2005) and Syakur (2007) state that the most complicated and difficult skill to perfect is speaking, and this is due to the fact that speaking necessitates not just knowing how to produce language correctly, but also knowing when, what, and why to do so. This is also supported by Khorashadyzadeh (2014), who believes that learners must not only know how to produce particular aspects of language, such as grammar,
pronunciation, or vocabulary (linguistic competence), but also acknowledge when, why, and how to produce language (sociolinguistic competence). Regarding the sociolinguistic aspect in speaking, Thornbury and Slade (2006) claim that speaking is social in that it forms relationships and mutual understanding, preserves and develops social identity, and demands interpersonal skills. This social element manifests itself in the form of wishes, emotions, perspectives, opinions, and judgments, which can conflict with the formal nature of the classroom while teaching speaking. They also claim that speech takes place in a small group of at least two persons.

On the personal level, Ranson (2000) explains that speaking takes its importance when it allows children and young people to investigate their own selves and reveal their identities. When a person masters speaking skills, he/ she becomes a well-rounded communicator who is competent in all four language skills. Such proficiency offers the speaker many unique advantages, including the ability to enjoy sharing ideas with others while still managing to acknowledge and appreciate themselves. Moreover, on the professional level, Ashour (2014) states that “Speaking skills are important to achieve the career success. Speaking enhances one's personal life by giving opportunities for travel, promotion, scholarships, or to attend conferences, international meetings, represent organizations in international events.” (p. 39). Rao (2019) agrees to this by explaining that speaking skills are the most important skills for all learners who want to improve their English skills in order to develop their careers, promote their business, boost their confidence, obtain better job opportunities, give public speeches, attend interviews, take part in debates and group discussions, and make presentations, among other things.

Nevertheless, speaking is the most difficult and challenging skill to practice and master when learning English as a foreign language. This difficulty is due to many reasons which could be related to learners’ linguistic capacity, their psychological state, the teacher’s attitude and linguistic efficiency, the amount of exposure to the target language, or the nature of the speaking skill itself. When talking about the aspect that is concerned with the students’ linguistic capacity, Eltayef (2017) explains that students are unable to communicate in English due to their limited vocabulary items and grammatical structures. They also lack the ability to compose sentences, which leads them to use the mother tongue. Even college students, according to Baker and Westrup (2003), find it difficult to answer to the questions of teachers because they do not know what to say, what vocabulary to use, or how to use grammar appropriately.
According to Juhana (2012), there are psychological factors that make it difficult for learners to speak. These factors are: fear of making mistakes, shyness, anxiety, lack of confidence, and motivation. With regard to fear of making mistakes, Jannah and Fitriati (2016) and Elttayef (2017) indicate that when it comes to speaking English, students are typically terrified of making mistakes. Furthermore, the students' fear of being ridiculed by their peers or judged upon by the teacher has a significant impact. Students also consider making mistakes in front of their classmates to be extremely embarrassing, thus they choose not to speak in order to avoid such situations.

Since speaking is considered the most challenging among all other language skills, there are also a lot of problems concerning how it is taught and assessed. Elttayef (2017) states that since speaking is the only skill that is not included in exams, it receives less attention in teaching. Alongside with grammar and vocabulary, the emphasis is primarily on teaching reading and writing. Although teaching speaking can be combined with the teaching of other skills such as reading and writing, teachers believe that time is inadequate to do so, and that other skills are given priority over speaking because they are included in the exam while speaking is not.

Several studies were conducted on speaking skills and how to improve them using various techniques and tools. For example, Hussin, Gani, and Muslem (2020) explored whether the use of YouTube videos through group discussion assisted students to improve their speaking skills (pronunciation, grammar, vocabulary, fluency and comprehension). The results of this study showed that using YouTube videos through discussion group assisted the students to improve their speaking skills (p<0.05), with the most significant improved skill was comprehension. Therefore, it was suggested that teachers consider using YouTube videos in their teaching techniques in an attempt to attract students’ motivation to improve their speaking ability.

Sintayani and Adnyayanti (2022) also explored the effect of self-assessment on EFL students’ speaking performance. It used library research with a method of document analysis by analysing previous related studies and theories. Results indicated that self-assessment had a positive effect on students’ speaking performance as it involved students in the process of evaluating their learning process, product or performance, and progress. The effects included identification of strengths and weaknesses, improvement of self-efficacy, and improvement of speaking performance. However, self-assessment needed to be implemented well by considering the assessment criteria and practices in order to achieve these positive effects.
Speaking Anxiety:

Anxiety is a psychological concept that usually refers to the negative emotions of worry that a person feels when experiencing a situation that is beyond their capabilities. When speaking about anxiety in general from the psychological perspective, Spielberger (1983) defines anxiety as “a subjective feeling of tension, apprehension, nervousness, and worry associated with an arousal of the autonomic nervous system” (p. 1). Anxiety has many types. Dornyei (2005) clarifies that two important anxiety distinctions are usually made: beneficial/facilitating anxiety vs. inhibitory/debilitating anxiety. Beneficial anxiety stimulates actions and excitement, paving the road for success; nevertheless, debilitating anxiety becomes an obstacle in the way of achieving successful performance.

The concept of anxiety is referred to as "second/foreign language anxiety" when it is related to learning a foreign language, and it corresponds to students' negative emotional reactions toward language acquisition. (Horwitz, 2001). Thus, a clear definition of foreign language anxiety was made by Horwitz et al (1986), who defines the term as “a distinct complex of self-perceptions, feelings and behaviours related to classroom language learning arising from the uniqueness of the language learning process” (p. 127).

There are many causes of speaking anxiety inside the classroom, and such causes vary in their nature. Some of these causes are related to the students’ cognitive or linguistic proficiency, while other causes are usually related to their psychological state. Moreover, speaking anxiety can result from other external factors that may be associated with the students’ performance, the teacher’s attitude, the class size, and many others.

According to Hanifa (2018), the cognitive factors are primarily concerned with students’ background knowledge since they affect their speaking performance. When asked to speak about unfamiliar topics, EFL students are more likely to struggle when generating ideas. On the same context, Mahmud (2018) shows that Communication apprehension, as one of the FLA (foreign language anxiety) categories proposed by Horwitz et al. (1986), is associated with students’ inability to communicate with others due to the lack of sufficient linguistic properties, such as grammar and vocabulary.

With regard to the psychological factors that cause speaking anxiety, Pertaub, Slater, and Carter (2001) postulate that anxiety frequently arises when the speakers are required to perform a public speech or speak with a foreigner because they are afraid of being evaluated or humiliated by
others. Despite the fact that people are aware that their worry is unreasonable, they cannot help but feel anxious, which can lead to depression, distress, and frustration. On the same context, Kayaoglu and Saglamel (2013) state that the social effects of language anxiety can be observed when a social situation generates language anxiety. For example, anxiety arousal is common in classrooms where there is a lot of competitiveness, where many students are looking forward to finding other students’ mistakes to laugh at, or where relationships between the learner groups are stressed. When competing, students continuously compare themselves to those who are better than them, which can lead them to lose their excitement, quit the task, or avoid it altogether.

As for the external factors that generate speaking anxiety, Mak (2011), Sadeghi et al. (2013), and Tuan and Mai (2015) noted that ill preparation of the oral tasks can be a significant factor that provokes anxiety, which means that if students are required to give oral presentations without prior preparation, their speaking performances are very likely to be unsuccessful. Moreover, Brooks and Wilson (2015) indicated that the lack of practice opportunities was the reason why students did not want to speak. As a result, the students will not be able to benefit from the positive effects that practice can have on their linguistic abilities. Thus, it is necessary to highlight that the more experience of EFL speaking that students possess, the less anxious they will be while speaking in that language.

Individual reactions to the presence of language speaking anxiety are absolutely different. Some students may experience very intensive anxiety and they attempt to avoid and postpone registering for the foreign language class, while others may pretend to be sick, skip the class, or hide in the last row lying on their desks. Anxious learners, for example, may be unable to grasp a spoken discourse quickly enough in language classes because anxiety affects their capacity to process information. Naturally, if the words or phrases do not enter the system, they cannot be processed or employed in the future. During the processing stage, learners' anxiety can affect their speaking fluency and accuracy. When learners are anxious, they may not be capable of learning vocabulary, phrases, grammar, and so on, which means that anxiety serves as a distraction. This anxiety can also be manifested in worrying about future communication or even the worry of misunderstanding something. (Suleimenova, 2013).

Several studies were conducted for the purpose of exploring the factors causing EFL speaking anxiety and some techniques of reducing it. For example, Tien (2018) explored the factors causing EFL English speaking
anxiety in EFL university classrooms in Taiwan. The results indicate that learners are extremely concerned about the accuracy of their grammar usage, their lack of vocabulary knowledge, correct pronunciation, and wanting their meaning to be understood. For the gender-related issue, female learners experience more English speaking anxiety than male students. Additionally, non-English majors have more English speaking apprehension than English majors. In a similar vein, comparing the years of English learning, students who studied more years of English are less worried about speaking English in the classroom.

Madzlan, Seng, and Kesevan (2020) also investigated whether public speaking anxiety can be alleviated through the use of online platforms and/or video blogs. The creation of personal video blogs could potentially help learners by providing a safe and non-threatening learning environment in which to practise their public speaking skills. This study also aims to identify the factors that influence the use of video blogs as a public speaking platform. A mixed-method approach is designed to examine the effects of using video blogs. A set of questionnaires and semi-structured interviews were applied to groups of tertiary level ESL learners. Quantitative and qualitative approaches to data analysis were carried out and the results indicate that the use of video blogs does bring significant positive outcomes in reducing public speaking anxiety among ESL learners.

**Dynamic Assessment:**

The concept of dynamic assessment has been tackled by many theorists and psychologists as an approach that combines both instruction and assessment to improve students' current potentials and capabilities and to discover the hidden ones. Therefore, a lot of conclusions from different perspectives have been made to define dynamic assessment.

According to Lidz and Gindis (2003), dynamic assessment is concerned with individual differences, so it combines teaching with testing and assessment in light of this new understanding of instruction. Lantolf and Poehner (2008) also indicate that dynamic assessment is an approach that provides a diagnostic understanding of where the learner is at while also boosting development by providing particular mediations or very small 'hints' to the learner during the assessment process in order to help the learner to move past or overcome obstacles to problem solving. This is supported by Shrestha and Coffin (2012), who believe that DA is a development-oriented procedure that uncovers the learners’ existing abilities in order to assist them in overcoming any performance problems and in recognizing their real potentials.
The main basis of dynamic assessment is what Vygotsky terms ‘the zone of proximal development’. This concept of the zone of proximal development (ZPD) is central to the sociocultural standpoints and characterizes the dialogic nature of teaching and learning processes. (Nassaji & Cumming, 2000). The zone of proximal development that Vygotsky indicates is "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). Reflecting on Vygotsky’s concept, Kao (2020) indicates that an individual's ZPD is discovered not only through observing solo performance, but also through the observation of how they work collaboratively with teachers and other learners. Along this thought, the emphasis in DA is thus on assessing process rather than the product solely.

Based on the principles of Vygotsky’s concept of the zone of proximal development which explain the framework of dynamic assessment, it can be said that DA follows specific formats when applied to learners. Since the main purpose of dynamic assessment is stimulating the potential development of learners in addition to their current development, Lidz and Gindis (2003) believe that DA is not restricted to a specific domain (e.g., psychology or speech pathology), content (e.g., history or mathematics), activity (e.g., testing or teaching), or age. It consists of a group of many procedures that share a common set of principles and formats. Sternberg and Grigorenko (2002, pp 27-28) described the most common two formats of dynamic assessment as the ‘sandwich’ design and the ‘cake’ design.

In the ‘sandwich’ format of dynamic assessment, the instruction is presented all at once between the pre-test and the post-test. According to Haywood and Lidz (2007), the 'sandwich' format of dynamic assessment consists of three stages: a traditional assessment of the capabilities in question, an intervention directed at problematic areas of learner performance, and a final assessment that resembles the first one. After comparing both the pre- and post-assessments, the difference between pre- and post-intervention levels is used to determine whether the abilities being measured are within the learner's ZPD.

As for the ‘cake’ format, Sternberg and Grigorenko (2002) explain that in the 'cake' format of dynamic assessment, the instruction is presented in the form of graded layers after each test item in response to each examinee's answer to each test question. Examinees are given instructions
one at a time. An item is provided to the examinee to solve. If the item has been correctly solved, the following item will be displayed. If the examinee does not successfully solve the item, a graded series of hints will be given. The hints are intended to make the answer more obvious as time goes on. The examiner then decides the number and the types of clues and hints required for the examinee to correctly solve the item. The prompting proceeds until the examinee is successful, or the assessor models the problem solution if the examinee fails, at which point the next item is provided.

In order to understand how mediation can be presented in dynamic assessment, the 'interventionist' vs 'interactionist' DA models have been established. The difference between these two DA models can be explained in terms of the mediators' relative freedom to respond to learners' challenges and investigate concerns as they arise during the interaction. (Lantolf & Poehner, 2004).

Lantolf and Poehner (2010) explain the difference between both models, stating that in interventionist DA, tasks and materials are chosen and analyzed with the purpose of predicting the types of challenges learners are likely to face. The mediation is then structured as hints, prompts, and leading questions, with varying their degree of explicitness. Mediation is organized on a scale from the most implicit to the most explicit, and the mediator moves from one hint to another during DA, until the learner either answers correctly or the last hint is reached, at which point the solution is provided and illustrated. Interactionist DA, on the other hand, puts no limitations on mediation and instead requires the mediator to do everything he/she can to help the learner go beyond his / her present independent performance, short of providing the answer.

Since dynamic assessment is applied according to a specific structure or steps, this implies that it has a different and distinctive nature from the traditional assessment (TA), or in that case what is known as static assessment (SA). When it comes to the main focus of both traditional and dynamic assessment, Baharloo (2013) distinguishes between them by explaining that traditional assessment is more oriented towards the product, aiming to determine the highest level which students have achieved. Unlike the traditional approach, dynamic assessment concentrates on the developmental process and is thus regarded as an approach that is oriented towards the process where a test is a useful tool for both measuring and promoting students’ knowledge so that they can apply what they learn to other tasks outside of the test. Shrestha and Coffin (2012) agree by stating
that, “DA is grounded in the notion of assessment as a process rather than a product. In other words, DA is a development-oriented process which reveals a learner's current abilities in order to help them overcome any performance problems and realize their potential” (p. 5).

Different researchers attempted to examine the potential of dynamic assessment, especially in EFL teaching/learning. For instance, Sohrabi and Safa (2020) examined the impact of group dynamic assessment (G-DA) on English as foreign language (EFL) learners’ oral production, motivation, and classroom anxiety. The results underscored the relative positive impact of G-DA on EFL learners’ oral proficiency development and classroom anxiety reduction. However, compared to NDA, G-DA did not have any positive effect on the participants’ motivation level. The findings seem to imply that a socially constructive environment which is more likely created in EFL classes as a result of the application of group-based dynamic assessment of the EFL learners’ language problems leads to more efficient identification of the group’s zone of proximal development (GZPD). Furthermore, GDA seems to be an efficient procedure for lowering the anxiety level of foreign language learners in classroom context.

Sherkuziyeva, Gabidullina, Ibrahim, and Bayat, (2023) also examined the impacts of computerized dynamic assessment (C-DA) and rater-mediated assessment on the test anxiety, writing performance, and oral proficiency of Iranian EFL learners. Based on Preliminary English Test (PET) results, a sample of 64 intermediate participants was chosen from 93 students. Based on the results, the experimental group outperformed the control group on the oral proficiency, writing performance, and test anxiety post-tests. Iranian EFL learners were able to improve both their written and oral skills while experiencing less test anxiety thanks to C-DA.

**Microsoft Office 365 Applications:**

One of the most widely used technological trends nowadays in the field of education, and in almost all fields is the use of what is called ‘cloud computing services’. Such services have made it easier for learners and educators to access and store all types of data on the internet, as well as offering the opportunity for interaction in the educational environment by supporting collaborative learning. Yadav (2014) states that cloud computing is a type of internet-based computing where shared resources, software, and information are made available as a service to computers and mobile devices and can be accessed on demand. In education, cloud computing is already widely used in the sense that students and teachers use free or low-cost cloud-based services on a daily basis for the purpose
of supporting learning, social interaction, content creation, publishing, and collaboration. Google Apps, YouTube, Twitter, Microsoft Apps, and Drop Box are all instances of cloud-based services.

Microsoft Office 365 is an online software designed by Microsoft to meet the users' needs in offices, businesses, and educational institutions. With some of its functionalities, it can be used for E-learning, especially in the world of Microsoft education. Therefore, anyone can use Microsoft Office 365 for E-learning anywhere, and at any time, including educators who are capable and skilled in using Microsoft Office 365. Microsoft Office 365 is more than just the online versions of Microsoft Word, PowerPoint, and Excel. Microsoft Office 365 is a cloud computing application that helps people communicate and collaborate more effectively. (Wahyuni & Kusumawati, 2021).

Microsoft Office 365 offers a variety of applications for different purposes such as business, education, and communication. Such applications include Teams, Outlook, Sway, and Forms. Other applications that may work very well for education as well as other fields include Word, Excel, PowerPoint, OneNote, Planner, OneDrive, and Yammer.

- **Microsoft Teams**: Microsoft Teams is a platform for communication and collaboration where chat, video meetings, file storage (and collaboration), and some other applications are all combined. It is accessible via web, desktop, and mobile apps and is available to all University staff and students through the University's Microsoft Office 365 subscription. (Getting Started With Microsoft Teams, 2020). Conversations, continued chat, phone calls, meetings, file content, and applications are all brought together in one spot by this collaboration tool. Through Teams, users can work collaboratively and confidently with others using any device with enterprise-grade security. It is an application that allows users to form a team and work collaboratively using chat (conversation) rather than e-mails, and channels rather than just files and folders. (Ilag, 2018).

- **Sway**: Microsoft Sway is a free Microsoft tool that can be accessed from Sway.com or can be available as an Office 365 app. Sway allows users to create websites that are called Sway sites where texts, pictures, videos, and social media can be combined, and such sites can be shared and displayed on any device. A Sway site arranges text, pictures, and videos into a responsive design, allowing content to adjust to any screen size in a perfect manner. Sway can be used to create a digital flyer, a newsletter for a club, a vacation blog, an instructional
site, a digital art portfolio, or a new product launch. (Parsons, Oja, Carey, & DesJardins, 2016).

- **Forms:** Microsoft Forms is an application that allows users to gather basic information from people both inside and outside institutions. A user can make a simple survey using an easy-to-use interface and share a direct link to the survey without any training. When users make a new survey and insert a survey title, Microsoft Forms suggests frequently used questions based on the title of the survey. Microsoft Forms can also be used to create quizzes, which makes it a prominent educational tool. Teachers can embed mathematical formulas as part of a question or multiple-choice options when creating a quiz to assess students' knowledge. It can also be incorporated with other Microsoft Office applications (such as Microsoft Teams) to collect data as part of the app's experience. (Lee, Phillips & Smith, 2021).

Several researchers investigated the impact of using some Microsoft Office 365 applications on promoting learners’ EFL speaking skills. For instance, Payung (2022) explored the effect of using the Microsoft Teams application on students’ speaking skills of SMAN 18 Makassar for the 2022/2023 academic year. This study used pre-experimental methods in one pre-test and post-test class through a speaking test. The sample consisted of 25 students taken from the population of class XII Science 1 SMAN 18 Makassar for the 2022/2023 academic year. The results of the data analysis showed that there was a positive effect on students' speaking skills, which can be seen from five speaking assessments, namely pronunciation, grammar, fluency, vocabulary, and comprehension.

Situmorang (2022) investigated the asking and giving experimental effect of using Microsoft 365 on students’ speaking skill at SMA Negeri 2 Pangkalan Kerinci. The sample in this study was 40 students and the instrument of collecting the data was a speaking test. Results of the study revealed that there was a significant effect of using Microsoft 365 applications on students’ speaking skill.

**Pilot study:**

In order to provide an evidence for the problem of the study, the researcher conducted a pilot study to determine the current level of student teachers’ speaking skills. An EFL speaking test designed by the researcher was administered to a sample of (20) second year major education student teachers at the Faculty of Education, Mansoura University. The results of the test were as follows:
Table 1

Results of the EFL speaking skills pilot study test

<table>
<thead>
<tr>
<th>Speaking sub-skills</th>
<th>Maximum Score</th>
<th>Mean Score</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>8</td>
<td>3.1</td>
<td>38.75%</td>
</tr>
<tr>
<td>Fluency</td>
<td>8</td>
<td>2.8</td>
<td>35%</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>8</td>
<td>3.5</td>
<td>43.75%</td>
</tr>
<tr>
<td>Pronunciation</td>
<td>8</td>
<td>3.3</td>
<td>41.25%</td>
</tr>
<tr>
<td>Total score</td>
<td>32</td>
<td>12.7</td>
<td>39.68%</td>
</tr>
</tbody>
</table>

Results in table (1) illustrated that the students’ mean score in the EFL speaking skills was below average (12.7) with the percentage of (39.68%); this indicated that the EFL second year major education student teachers need to improve their EFL speaking performance. Thus, the current study suggested using Microsoft Office 365 applications-based dynamic assessment for developing student teachers’ EFL speaking skills and reducing their EFL speaking anxiety.

Statement of the problem:

Based on the review of related literature and the results of the pilot study, the problem of the current study can be stated as follows:

EFL Second year major education student teachers do not master the EFL speaking skills necessary to make them competent future EFL teachers. Therefore, using Microsoft Office 365 applications-based dynamic assessment may enhance their speaking skills and reduce their speaking anxiety.

Questions of the study:

The present study aimed at answering the following questions:

1. What are the speaking skills that should be mastered by EFL second year major education student teachers?
2. What is the effect of using Microsoft Office 365 applications-based dynamic assessment on improving EFL second year major education student teachers’ EFL speaking skills?
3. What is the effect of using Microsoft Office 365 applications-based dynamic assessment on reducing EFL second year major education student teachers’ speaking anxiety?
4. What is the relationship between improving student teachers’ speaking skills and reducing their speaking anxiety?

Purposes of the study:

The present study aimed at:

1. Determining the speaking skills that should be mastered by EFL second year major education student teachers.
2. Investigating the effect of using Microsoft Office 365 applications-based dynamic assessment on improving EFL second year major education student teachers' EFL speaking skills.


4. Discovering the relationship between improving student teachers' speaking skills and reducing their speaking anxiety.

Hypotheses:
The present study attempted to test the following hypotheses:

1. There is a statistically significant difference at the ($\leq 0.05$) level between the mean score of the experimental and control groups on the post-administration of the EFL speaking skills test in favor of the experimental group.

2. There is a statistically significant difference at the ($\leq 0.05$) level between the mean score of the experimental group students' scores of the pre- and the post-administration of the EFL speaking skills test in favor of the post-administration.

3. There is a statistically significant difference at the ($\leq 0.05$) level between the mean score of the experimental and control groups on the post-administration of the speaking anxiety scale in favor of the experimental group.

4. There is a statistically significant difference at the ($\leq 0.05$) level between the mean score of the experimental group students' scores on the pre- and post-administrations of the speaking anxiety scale in favor of the post-administration.

5. There is a negative correlation between improving student teachers' speaking skills and reducing their speaking anxiety.

Significance of the study:
It was hoped that the present study would contribute to:

1. Raising the awareness of EFL teachers about the necessity of dynamic assessment in developing English language skills.

2. Integrating new ways of promoting EFL student teachers' speaking skills through using modern technology.

3. Directing the attention of EFL specialists and curriculum planners towards the importance of dynamic assessment in education and in assessment.

4. Providing researchers with a model on how to employ Microsoft applications for improving the English language skills.
Delimitations of the study:
This study was delimited to:
1. A sample of EFL second year major education student teachers from the Faculty of Education, Mansoura University.
2. Some EFL speaking skills that should be mastered by EFL second year major education student teachers such as pronunciation, vocabulary, grammar, and fluency.
3. Some Microsoft Office 365 applications that incorporated dynamic assessment for improving student teachers’ EFL speaking skills such as Microsoft Teams, Microsoft Sway, and Microsoft Forms.

Method:
Design of the study:
This study adopted the quasi-experimental design. The participants were divided into two groups: one as the experimental group and one as the control group. The experimental group was trained using Microsoft Office 365 applications-based dynamic assessment, whereas the control group received training using the regular method of teaching. Both groups administered a pre- post EFL speaking skills test and a pre- post EFL speaking anxiety scale.

Participants and setting:
Participants of the study consisted of sixty EFL student teachers from EFL second year major education at the Faculty of Education, Mansoura University. Two Microteaching groups were assigned to an experimental group and a control group. Student ages ranged between nineteen and twenty years old.

Instruments:
The present study used the following instruments:
1- An EFL speaking skills questionnaire: to identify the most important EFL speaking skills that should mastered by EFL second year major education student teachers.
2- An EFL speaking skills test: to measure the actual level of the student teachers’ speaking skills before and after applying the Microsoft Office 365 applications-based dynamic assessment, and thus determining the effectiveness of the treatment.
3- An EFL speaking skills rubric: for the purpose of scoring the EFL speaking skills test.
4- An EFL speaking anxiety scale: for assessing the student teachers’ level of EFL speaking anxiety before and after applying the Microsoft Office 365 applications-based dynamic assessment.
Definitions of terms:

The main terms of the study are operationally defined as:

**Microsoft Office 365 Applications:**

A collection of cloud-based digital tools and applications provided by Microsoft that EFL student teachers and educators can use in the teaching-learning process to practice EFL speaking skills, achieve various tasks, and communicate with each other. In addition, these applications are run through the internet and can be accessed anytime and anywhere through multiple devices such as Microsoft Teams, Microsoft Sway, and Microsoft Forms.

**Dynamic Assessment:**

An approach to teaching that integrates assessment with instruction through intervention, or what is called ‘mediation’ presented by the instructor or mediator to EFL student teachers in order to facilitate instruction of EFL speaking skills and reduce the anxiety that frequently results from practicing EFL speaking skills and undergoing speaking tasks.

**The Speaking Skills:**

The interactive processes that EFL student teachers carry out through producing verbal and nonverbal utterances in order to communicate with one another, exchange information, and convey their feelings and their points of view.

**Speaking Anxiety:**

The emotions of worry and apprehension that EFL student teachers experience when they try to speak using the foreign language, which can be manifested in their suffering to articulate words and the difficulty to produce proper and understood spoken utterances.

**Results and Discussion:**

The statistical methods used to verify the hypotheses were *t*-test for independent (unpaired) groups, *t*-test for paired groups, the simple linear correlation coefficient, and effect size.

**Testing the Hypotheses:**

1. The first hypothesis stated that: “There are statistically significant differences at the (≤ 0.05) level between the mean scores of the experimental group and the control group on the post-administration of the EFL speaking skills test in favour of the experimental group”.

In order to verify this hypothesis, the *t*-test for independent (unpaired) groups was used to determine the significance of the differences between the mean scores of the experimental group and the control group in the post-
administration of the EFL speaking skills test. Results are shown in the following table:

Table 2
Comparing the performance of the two groups in the post-administration of the EFL speaking skills test.

<table>
<thead>
<tr>
<th>Speaking Sub-Skills</th>
<th>Groups</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t-Value</th>
<th>DF</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>30</td>
<td>10.6</td>
<td>1.221</td>
<td></td>
<td>17.31</td>
<td>58</td>
<td>0.01</td>
</tr>
<tr>
<td>Control</td>
<td>30</td>
<td>4.97</td>
<td>1.299</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocabulary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>30</td>
<td>10.57</td>
<td>1.357</td>
<td></td>
<td>15.99</td>
<td>58</td>
<td>0.01</td>
</tr>
<tr>
<td>Control</td>
<td>30</td>
<td>5.23</td>
<td>1.223</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grammar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>30</td>
<td>10.27</td>
<td>1.484</td>
<td></td>
<td>15.48</td>
<td>58</td>
<td>0.01</td>
</tr>
<tr>
<td>Control</td>
<td>30</td>
<td>5.53</td>
<td>0.776</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pronunciation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>30</td>
<td>10.37</td>
<td>1.497</td>
<td></td>
<td>14.65</td>
<td>58</td>
<td>0.01</td>
</tr>
<tr>
<td>Control</td>
<td>30</td>
<td>5.6</td>
<td>0.968</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>30</td>
<td>41.8</td>
<td>4.197</td>
<td></td>
<td>22.29</td>
<td>58</td>
<td>0.01</td>
</tr>
<tr>
<td>Control</td>
<td>30</td>
<td>21.33</td>
<td>2.771</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The above table shows that there are statistically significant differences between the mean scores of the experimental group and the control group in the post-administration of the EFL speaking skills test in favor of the experimental group (the largest means = 10.6 - 10.57 - 10.27 - 10.37 - 41.8), where the t-values are equal to (17.31 - 15.99 15.48- 14.65- 22.29), which are statistically significant values at the (0.01) level. This means that the results in table (2) verify the first hypothesis. Consequently, the first hypothesis is verified and accepted.

2. The second hypothesis stated that: “There are statistically significant differences at the (≤ 0.05) level between the mean scores of the pre- and post- administrations of the experimental group on the EFL speaking skills test in favour of the post-administration”.

For verifying this hypothesis, the t-test for paired groups was used in order to determine the significance of the differences between the mean scores of the pre- and post- administrations of the EFL speaking skills test to the experimental group, which is illustrated in the following table:
Comparing the performance of the experimental group in the pre- and post- administrations of the EFL speaking skills test.

<table>
<thead>
<tr>
<th>Speaking Sub-Skills</th>
<th>Measurement</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t-Value</th>
<th>DF</th>
<th>Sig</th>
<th>(η2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency</td>
<td>Pre</td>
<td>30</td>
<td>4.27</td>
<td>1.552</td>
<td>19.41</td>
<td>29</td>
<td>0.01</td>
<td>0.929</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>30</td>
<td>10.6</td>
<td>1.221</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocabulary</td>
<td>Pre</td>
<td>30</td>
<td>4.47</td>
<td>1.655</td>
<td>19.55</td>
<td>29</td>
<td>0.01</td>
<td>0.93</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>30</td>
<td>10.57</td>
<td>1.357</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grammar</td>
<td>Pre</td>
<td>30</td>
<td>4.23</td>
<td>1.654</td>
<td>19.54</td>
<td>29</td>
<td>0.01</td>
<td>0.93</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>30</td>
<td>10.27</td>
<td>1.484</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pronunciation</td>
<td>Pre</td>
<td>30</td>
<td>4.17</td>
<td>1.763</td>
<td>19.63</td>
<td>29</td>
<td>0.01</td>
<td>0.93</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>30</td>
<td>10.37</td>
<td>1.497</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Pre</td>
<td>30</td>
<td>17.13</td>
<td>5.952</td>
<td>27.33</td>
<td>29</td>
<td>0.01</td>
<td>0.963</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>30</td>
<td>41.8</td>
<td>4.197</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is clear from the previous table that there are statistically significant differences between the mean scores of the pre- and post- administrations of the experimental group in the EFL speaking skills test in favour of the post-administration (largest means = 10.6 - 10.57 - 10.27 - 10.37 - 41.8), where the t-values were equal to (19.41 - 19.55 - 19.54 19.63-27.33), which are statistically significant values at the (0.01) level.

In addition, the above table shows that the effect size values of the treatment (η2) are higher than (0.14) as they ranged between (0.929) and (0.93), and the total effect size of the treatment for developing student teachers’ EFL speaking skills is (0.963). This, as a result, indicates that the effect size of the Microsoft applications-based dynamic assessment for developing student teachers’ EFL speaking skills is high and that the development in the student teachers’ EFL speaking skills could be attributed to the use of Microsoft applications-based dynamic assessment. As a result, the second hypothesis is verified and accepted.

3. The third hypothesis stated that: “There are statistically significant differences at the (≤ 0.05) level between the mean scores of the experimental and control groups on the post-administration of the EFL speaking anxiety scale in favor of the experimental group”.

In order to verify this hypothesis, the t-test for independent (unpaired) groups was used to determine the significance of the differences between the mean scores of the experimental group and the control group in the post-administration of the EFL speaking anxiety scale. Results are shown in the following table:
Table 4
Comparing the performances of the two groups in the post-administration of the EFL speaking anxiety scale

<table>
<thead>
<tr>
<th>Reducing EFL Speaking Anxiety</th>
<th>Groups</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t-Value</th>
<th>DF</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Experimental</td>
<td>30</td>
<td>37.6</td>
<td>6.495</td>
<td>16.662</td>
<td>58</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>30</td>
<td>76.9</td>
<td>11.168</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The previous table shows that there are statistically significant differences between the mean scores of the experimental group and the control group in the post-administration of the EFL speaking anxiety scale in favor of the experimental group (the lowest mean = 37.6), where the t-values were equal to (16.662), which are statistically significant values at the (0.01) level. Thus, the third hypothesis is verified and accepted.

4. The fourth hypothesis stated that: “There are statistically significant differences at the (≤ 0.05) level between the mean scores of the pre- and post-administrations of the experimental group in the EFL speaking anxiety scale in favor of the post-administration”.

For verifying this hypothesis, the t-test for paired groups was used in order to determine the significance of the differences between the mean scores of the pre- and post-administrations of the EFL speaking anxiety scale to the experimental group, which is illustrated in the following table:

Table 5
Comparing the performance of the experimental group in the pre- and post-administrations of the EFL speaking anxiety scale

<table>
<thead>
<tr>
<th>Reducing EFL Speaking Anxiety</th>
<th>Measurement</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t-Value</th>
<th>DF</th>
<th>Sig</th>
<th>(η2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Pre</td>
<td>30</td>
<td>83.27</td>
<td>10.891</td>
<td>22.97</td>
<td>29</td>
<td>0.01</td>
<td>0.948</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td></td>
<td>37.6</td>
<td>6.495</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

the above table indicates that there are statistically significant differences between the mean scores of the pre- and post-administrations of the experimental group in the EFL speaking anxiety scale in favor of the post-administration (the lowest mean= 37.6), where the t-value is equal to (22.97), which is a statistically significant value at the (0.01) level.

Moreover, the above table shows that the total effect size value of the treatment (η2) is higher than (0.14) as it is equal to (0.948). This, as a result, indicates that the effect size of the Microsoft applications-based dynamic
assessment for reducing EFL speaking anxiety of student teachers is high and that the decrease in the student teachers’ EFL speaking anxiety levels could be attributed to the use of Microsoft applications-based dynamic assessment. As a result, the fourth hypothesis is verified and accepted.

5. The fifth hypothesis stated that: “There is a negative correlation between developing student teachers’ EFL speaking skills and reducing their EFL speaking anxiety”.

For verifying this hypothesis, the Pearson Simple Correlation Coefficient was used for the purpose of calculating the correlation coefficient between the scores of the post-administration of both the EFL speaking skills test and the EFL speaking anxiety scale. The following table illustrates the value of correlation coefficient between both scores and its significance:

<table>
<thead>
<tr>
<th>Correlation coefficients</th>
<th>The EFL speaking anxiety scale</th>
<th>Direction of relationship</th>
<th>Strength of relationship</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The EFL speaking skills test</td>
<td>0.845</td>
<td>Negative</td>
<td>Strong</td>
<td>0.01</td>
</tr>
</tbody>
</table>

The above table shows that there is a strong negative correlation between developing the student teachers’ EFL speaking skills and reducing their EFL speaking anxiety since the “r” value (= 0.845) is statistically significant at the (0.01) level. Therefore, the fifth hypothesis is verified and accepted.

**Discussion of Results:**

The current study investigated the effectiveness of using the Microsoft applications-based dynamic assessment on promoting the student teachers’ EFL speaking skills and on reducing their EFL speaking anxiety. For the purpose of measuring the effectiveness of the treatment, both the experimental and control groups of the study administered an EFL speaking skills test and an EFL speaking anxiety scale before and after being exposed to the treatment.

The results of the study indicated that there were statistically significant differences at the (0.01) level between the mean scores of the experimental group and the control group in the post-administration of the EFL speaking skills test in favor of the experimental group. In addition to that, there were statistically significant differences at the (0.01) level
between the mean scores of the pre- and post-administrations of the experimental group in the EFL speaking skills test in favor of the post-administration. Furthermore, the total effect size of the Microsoft applications-based dynamic assessment for developing the EFL speaking skills of second year major education student teachers was (0.963) on the EFL speaking skills test, which demonstrates a high effect.

Moreover, there were statistically significant differences at the (0.01) level between the mean scores of the experimental group and the control group in the post-administration of the EFL speaking anxiety scale in favor of the experimental group. There were also statistically significant differences at the (0.01) level between the mean scores of the pre- and post-administrations of the experimental group in the EFL speaking anxiety scale in favor of the post-administration. In addition, the total effect size of the Microsoft applications-based dynamic assessment for reducing the EFL speaking anxiety levels of second year major education student teachers was (0.948) on the EFL speaking anxiety scale, which demonstrates a high effect.

The final result of this study indicated that there was a negative correlation between the scores of the post-administration for both the EFL speaking skills test and the EFL speaking anxiety scale for student teachers at the (0.01) level. This correlation meant that the treatment had a significant potential in developing the student teachers’ EFL speaking skills and reducing their EFL speaking anxiety levels.

The results and findings of the present study support the earlier studies carried out on investigating the effectiveness of dynamic assessment on promoting EFL speaking skills. For example, the results of the studies conducted by Siwathaworn & Wudthayagorn (2018) and Koroglu (2019). In addition to measuring the impact of dynamic assessment on the EFL speaking and oral skills of learners, studies as Estaji & Farahanyinia (2019) and Sohrabi & Safa (2020) all measured the impact of using dynamic assessment on reducing different types of anxiety, and the results of all these studies proved that the use of dynamic assessment could remarkably reduce the learners’ anxiety levels.

Moreover, the studies conducted by Benghalem (2015), Rojabi (2020), and Payung (2022), investigated the effect of using some Microsoft Office 365 applications on students’ speaking and anxiety, and all of these studies revealed that using the Microsoft office 365 applications had positive effects on students’ speaking skills and anxiety.
All these findings proved that using Microsoft applications-based dynamic assessment could boost the learners’ oral performances and gave them higher levels of self-confidence to express themselves through EFL speaking, which, in turn, could reduce their EFL speaking anxiety levels.

**Conclusion:**

The present study concluded that using the Microsoft applications-based dynamic assessment could improve the EFL speaking skills of the second year major education student teachers, and that it also contributed to reducing their EFL speaking anxiety levels. This conclusion was due to the fact that the use of dynamic assessment helped students to keep track of their performance while speaking and reach the correct responses independently with the help of the instructor. In addition, using the Microsoft Office 365 applications could enhance the entire learning process. For example, using the Teams application enabled students to communicate and interact with each other and with the instructor, which allowed the chance for all of them to participate actively in the speaking tasks presented. Using the Sway application could also assist learners to actively interact with and engage in the learning tasks and materials in a creative and attractive way. Moreover, using the Forms application allowed learners the opportunity to show their reflections upon the training given to them easily and flexibly as well as helping the instructor to gather their responses to the anxiety scale used in the current study in an accessible and well-managed manner.

**References**


