Infusing Communication Skills into Financial Accounting Curriculum: A Perspective from the Digital Era

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Abstract—This study investigates financial accounting students' attitudes about several aspects related to modern pedagogies focusing on communication skills development. The paper focuses on areas of students' need to develop communication skills irrespective of cultural diversity and gender inequality, quiz-based learning, requirements, and assessment. The study employed an online survey of students at one of the largest business colleges in the Sultanate of Oman. The study surveyed 96 currently registered students to cover the research objectives and questions. The findings showed that the students enjoyed a high level of awareness of the importance and relevance of communication skills in relation to future employability. Students believed developing communication importance was not limited to careers in financial accounting as it was also extended to other careers requiring a post-secondary degree. Quiz-based learning strategies were found to be relevant in improving communication skills. The results also highlighted adaptability as a main assessment criterion of communication skills. The study provided bases for higher education institutions in the Sultanate of Oman or other countries to empower the generalizability of the findings. Another possible research could replicate the investigation in other fields of study. This paper brings several implications for instructional practice and pedagogies, as well as for policies of instructional training and development. The study is original in its particular context and specific time during the COVID-19 pandemic as attitudes toward online technologies have been shifting paradigms.

Index Terms—Quiz-based-learning, communication skills, digital learning, instructional technology, financial accounting education, occupational skills

I. INTRODUCTION

The lifelong exposure to Information Communication Technology (ICT) and the urgent necessity for occupational skills took momentum at a great pace for university graduates of all fields of study including accounting [1]. This study investigated the concepts of digital-learning analogy that were embedded into instructional technology with the intention of examining possible advancements in Financial Accounting (FA) education. New design principles that could aid in improving learning materials for FA students are also investigated in relation to communication skills development. This could provide potential benefits for FA education and curriculum development and help bridge the gap between FA education theory and practice.

A considerable amount of literature focused on the gap between theory, which was being taught at schools, and the reality or practice at work placement [2–4]. These studies stress the importance of developing a logical path and employment skills for graduates to follow and possess to apply theoretical knowledge to work-based practices. Accounting Information System (AIS) is among a few strategies suggested to cross the gap between theory and practice in accounting education. Mihaltan [4] recommends using AIS as a decision-making tool, which is important for all stakeholders of accounting information users. Therefore, a digital platform of AIS can be used to enhance graduates' communication skills. AIS produces integrated and generalized information for accounting users. A communicator uses this information to draft financial reports and keep stakeholders informed about the latest technologies available. Quick-Insight, Cloud storage, collaborative environment, cyber security, and paperless workplace have been pointed out as essential features of AIS.

Workplace preparedness for a chosen career is crucially important for future career success. For accounting graduates, several relevant skills are typically required by employers, such as ICT literacy, financial analysis, or results communication. On the latter, Sheridan [5] says "This is where new and trainee accountants will need to be prepared to utilize their communication skills—noting anomalies and seeking clarification on areas of uncertainty will ensure that a clearer picture can be obtained". A satisfactory academic result normally offers no guarantee for career success unless it helps to migrate classroom-learning to work-based-learning. Collaboration between technical skills and occupational skills is equally important for accounting students. For example, an accountant with sound knowledge of accounting matters, rather than technical skills, may misuse accounting treatments due to poor skills in communication [6]. Many researchers have been attempting to understand 21st century digital skills and communication skills are regarded as their top priority [7]. Some researchers identified communication skills as social skills but failed to accumulate such skills across careers [8].

The decreasing trend in the effectiveness of instructional technology for accounting studies in a higher education environment is identified by several studies and several relevant strategies have been reported in relating communication skills to accounting education. Quizzed-Based-Learning (QBL) is one of these. QBL is structured around the teaching and learning process that takes as the key pedagogical tool for a specific game to enhance communication skills. Some researchers have investigated

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the effectiveness of digital QBL and its impact on learning outcomes [9]. The results showed that attributes and motivations had a significant impact on QBL; nonetheless, no significant impact on learning outcomes was found. As different instructional tools, simulations were compared with different games for the assessment of effectiveness [10]. Nonetheless, as per the factor analysis, only game configuration and enjoyment have been used to understand complex patterns and relationships. Online quizzes are explicitly designed for educational purposes, and they can take place in a formal or informal environment, and one-on-one or in groups [11]. The research team assumes that QBL can enhance various skills related to cognition including communication skills. According to the QBL, the application of quiz elements will enhance communication skills in the diversity of complex tasks which require a high caliber of problem-solving skills [12]. In recent years, educational systems have encouraged in-class peer interactions to improve communication skills. This occupational skill will have a significant impact on continual growth in FA and it requires a sound framework and a model. A proven record is available to show high performance in academic achievements and career success with sound communication skills [13]. They pointed out "instructors have to develop students' communication by allowing scholars to research thoughts, deepen their understanding of these estimates, and establish links within and outside of ideas". The ecological model of communication presented by Foulger [14] is used to enhance the communication skills of students. It is a QBL approach, vitally important in developing an online QBL module. The adaptation to the ecological model of communication has shown a significant improvement in students' performance in the comparison of experimental versus control groups (ibid).

One study presented by Radzia and Drahman *et al.* [15] shows that a competition-based learning strategy is used to overcome the students' challenges in their learning process. To understand the perception of online accounting quizzes, an investigation was carried out. The lack of application was caused due to the gap between the theory and practice of FA. The fourth Industrial Revolution (IR 4.0) has changed the employment landscape, hence financial students are required to equip with new technological aspects in both learning environments and work-related industries [16]. Ongoing educational reforms in Oman encourage the use of technological tools in the educational system. This concept has been adopted to enhance the education system in Oman with the accreditation of the International Bureau of Education [17].

Communication skills have been highlighted among the most important employability skills for several reasons including intraorganizational or interorganizational communication [18]. Communication skills can be assessed by using the criteria of talking and listening skills, adaptability, and resourcefulness [19]. They include exchanging ideas with others, adapting to conversations, making feedback, and public speaking. A high caliber of communication skills makes students more effective in communication in different workplace contexts. For example, listening and paying attention to instructors develops

listening skills. Participation in classroom discussions could develop active listening and even debating skills. Adaptation to the audience is another configuration of good communicators so that students can apply different communication styles appropriate to a given situation. The ability to transmit a message that involves the shared understanding of peers in each context is regarded as a communication skill [20]. Students are more likely to respond to work-related queries once they become more confident with their communication skills.

There are many digital platforms for QBL in the Omani context and among these is Kahoot. Wang and Tahir [21] point out the positive effect of using Kahoot for educational landscapes. According to the authors (ibid), Kahoot supports systematic analysis of learning performance, classroom dynamics, students' and teachers' attitudes, and students' anxiety. Some challenges have been reported such as network connectivity and scoring bases. Radzia *et al.* [15] found that students experience mixed feelings about using online quizzes for accounting courses. Turner and Johnston *et al.* [11] highlight that technological advancements, including the use of QLB, have offered opportunities for higher educational institutes (HEIs) to engage multiple teaching and learning styles so that online QBL would be an ideal solution in terms of infusing communication skills. Mihaltan [4] suggests various approaches in bridging the gap between theory and practice in accounting, including communication skills. The paper suggested a novice follow and focus on a logical path in the mission of applying theoretical knowledge acquisition to practical disbursement. This was confirmed by the accountants of twenty first century who stressed the importance of communications skills. The Omani students' perceptions of accounting courses were tested by Khan and Salim *et al.* [20] who found that most of the participants had ranked accounting as the 'language of businesses. Thus, communication skills are required to inspire stakeholders within the business context.

There are several approaches in enhancing communications skills which include blended learning and gamification for FA students. Suartama and Ulfa *et al.* [22] developed an instructional model to enhance the student's capabilities at HEIs. It is found that blended learning case scenarios are more relevant than conventional teaching where students act as promotors and accelerators of mobile internet technology. Game-based platforms and QBL are used in most subject areas other than FA, such as English [23], Music [24], and Marketing [25]. Furthermore, Dickey [26] stressed that GBL can be introduced in aesthetic subjects including arts and crafts. The most important aspects of GBL were that it had impacted curriculum development and novel educators used it in widespread areas of education [27]. Those studies reported that the gamification approach offered improvement in learning gains as well as empowering learners to overcome individual learning difficulties. Barr [19] introduced different approaches to develop communications skills as it is an important transferrable skill for college graduates. In that study the author identifies a lack of educational courses, including accounting as a major, to promote communication skills explicitly. Arquero and Michel *et al.* [28] identified a relationship between

communication apprehension and communication self-efficacy. A negative relationship has been found between apprehensions and self-efficacy, yet it is beyond cultural barriers. It is important to inculcate communication skills among the teachers, hence students' academic success would be enhanced. Another point to consider is that the majority of learners rank communication skills among the most important and relevant ones [29].

Current FA teaching practices are mainly based on conventional pedagogies, which include face-to-face teaching with the aid of teaching materials such as physical hand-outs, power-point slideshows, and question banks [17]. The Sultanate of Oman is not exclusive to this approach and continues to be a follower. Accounting is a challenging subject across business programs, and it will be the career of most financial professionals, and therefore, intervention is vitally required. Students' learning habits could be enhanced by reinforcing the skills-buildings intervention tool so that the gap between the theory and practice of FA can be narrowed. To identify the necessity of QBL pedagogy, a needs assessment is required within the FA curriculum. Over the past years, GBL was tested as a new educational tool but its effectiveness and requirement were not tested for many domains [30]. Hence, this research paper attempts to understand the demand for a tech-savvy digital platform for FA students with the aid of needs analysis. The preference for equal access to communication skills and GBL for both male and female students becomes another key objective in this context. The needs and opportunities for new norms of education should be available for all students regardless of gender.

II. METHOD

Based on the theoretical discussion above, there is a pressing need to investigate QBL in relation to its impact on the development of communication skills and potential development for FA curriculums and instructional methods. This study is underpinned by the following research questions:

RQ 1: How relevant do FA students view communication skills to their area of study? Do views differ between males and females?

RQ 2: How frequently do FA students use online QBL to improve their communication skills?

RQ 3: What communication skills are required within the FA curriculum?

RQ 4: What are the relevant assessment criteria needed to measure the improvements in communication skills within the QBL FA teaching pedagogy?

A. Research Design and Participants

A suitable research methodology was adopted to answer the research questions and those were aligned with the respective research objectives. The empirical investigation followed the Design and Development Research (DDR) strategy [31]. The DDR is a systematic study of design, development, and evaluation processes with the aim of establishing an empirical basis for the creation of instructional or non-instructional products and tools and new

or enhanced models that govern development [31]. The DDR commenced with the need analysis has helped to understand the need for a QBL platform as well as communication skills for FA students. The target sample was selected from the research domain of one college in Muscat, Sultanate of Oman. Participants were studying Financial Accounting 2 (UG037) in semester 2 at Undergraduate Department B.Sc. Accounting, Auditing, and Finance, for the academic year of Spring 2020/2021. It was one of the semesters which was executed during the COVID-19 pandemic. Emails to recruit participants explaining the aim of the study and a link to an online survey were sent to all students matching the research criteria (N=145). 96 responses were received with a response rate of 66%.

B. Collecting and Analysis Data

Data collection was carried out with the aid of an online questionnaire with items adapted from the literature [32–36]. These studies were chosen due to the relevance of focus and context. The research team prepared and used a comprehensive questionnaire for need assessment. It included various scales to measure the needs of students and their willingness to use novel technology for career aspirations. Students need assessment was carried out within the scales of 'extremely disagree' to 'extremely agree'. Meanwhile, students' willingness to use online QBL pedagogy was dispersed within the scale of always to never. The questionnaire was drafted and reviewed by four FA academics and three industry experts to check for relevance, coverage, and wording. Reviews helped in developing the final version of the questionnaire. The questionnaire was then piloted with 30 participants. As for the prevailing results in the pilot test, its reliability and validity test, the researchers executed the original survey after amendments were made to the pilot questionnaire. The questionnaire consisted of three sections. Section A investigated participants' demographics and the possible needs/motives for communication skills within the range of not at all important to extremely important. Meanwhile, Section B probed the frequencies of online quizzes to improve communication skills with the agreement of always to never. Section C assessed the requirement of communications skills for FA students and its assessment criteria ranged from: extremely disagree to extremely agree.

Data collected were analyzed using Statistical Package for Social Sciences (SPSS v23) with the view of obtaining both descriptive and inferential statistical analysis. Each construct consisted of several measurements as the key elements based on the research objectives. Both t-test and one-way ANOVA were utilized in conducting significance tests.

III. RESULTS

This section presents the results following a similar structure of the research questions starting with investigating the need for developing communication skills focusing on possible gender differences. This is followed by results attitudes related to the use of online quizzes in developing communication skills. The final two subsections present results on communication skills requirements and relevant

assessment criteria.

The questionnaire consisted of three main parts.

A. Student Views about the Relevance of Communication Skills (RQ1)

The surveyed students believed that communication skills were important as they related to FA. This question scored a mean of 3.802 with 93 positive scores (extremely important N=43 and important N=50). This rating reflected the higher importance of communication skills within the FA curriculum. The results showed a relatively high level of standard deviation (SD=1.054). Therefore, each score deviated from the mean of 3.802 by 1.054 points on average. However, a low level of standard error (0.107) showed that the sample was more representative of the overall population, and this offered more confidence in the results.

When comparing the results for males and females, as shown in Table I below, the gender composition of samples is 70 males and 26 females (73% and 27%, respectively). The mean score for communication skills for males was 3.8286 whereas it was 3.7308 for females. The mean values of males and females were expected to vary between ± 1.035 and

1.282 respectively. So that, the mean scores for male students were within 1.035 points of 3.829, whereas for female students, scores were within 1.282 points of 3.731.

TABLE I: DESCRIPTIVE STATISTICS OF NEED FOR COMMUNICATION SKILLS

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Need for communication skills	Male	70	3.829	1.035	0.123
	Female	26	3.731	1.282	0.251
	Total	96	3.802	1.05	0.107

An independent samples t-test and Levene test were used to test the following hypotheses, where μ1 and μ2 were the population mean scores for males and females, respectively.

H_o: $\mu1 - \mu2 = 0$ ("the difference between the means of males and females is equal to 0")

H_1: $\mu1 - \mu2 \neq 0$ ("the difference between the means of males and females is not 0")

TABLE II: INDEPENDENT SAMPLE T-TEST FOR THE NEED FOR COMMUNICATIONS SKILLS

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean dif.	Std. Error dif.	95% Confidence Interval of the Difference	
									Lower	Upper
Needs of communication skills	Equal variances assumed	4.732	0.032	0.385	94	0.701	0.097	0.254	−0.406	0.602
	Equal variances not assumed			0.349	37.764	0.729	0.097	0.280	−0.469	0.665

According to Table II above, the p value of 0.032 (α) is less than 0.05 as of Levene's test. Therefore, the research team rejected the established null hypothesis and concluded that the difference between the means of males and females was not equal to 0 for the need for communication skills. The variance in the need for communication skills of males was significantly different from that of females. The perceived p value was less than α and this suggested that equal variances were not assumed for the discussion of t-test and confidence intervals. As depicted above, the t-Test p value of 0.729 was greater than the α value of 0.05. Accordingly, the group means were not statistically different, and the established null hypothesis was accepted. Furthermore, with the mean difference of 0.097 between males and females, the Confidence Interval (CI) suggested that the mean difference was not significant as zero appeared between –0.469 and 0.665.

B. Online Quizzes Use to Improve Communication Skills (RQ2)

The use of online quizzes to improve communications skills was tested within the extremes scales of 'always to never'. The scale wise frequency, mean, standard deviation, and standard error were reflected under the descriptive analysis whereas the agreement of using online quizzes to enhance communication skills was tested with an independent sample t-test which was an inferential technique. There were five scales in this construct: always (1), very

often (2), sometimes (3), rarely (4), and never (5). In order to assess the need for online quizzes, two extreme scales were selected. This overall mean of 'always' reflected the importance of online quizzes to enhance communication skills within the FA curriculum. The value of the mean for 'always' was comparatively lower as it was inversely proportionate to the scales selected (always =1 and never =5).

TABLE III: DESCRIPTIVE STATISTICS OF ONLINE QUIZZES USE

Online quizzes use to improve communication skills	N	Mean	Std. Deviation	Std. Error Mean
Always	30	1.200	0.406	0.074
Never	4	1.500	0.577	0.288

With reference to Table III above, the compositions of 'always' and 'never' are reflected as 30 and 4 which gives the sum of 34 participants out of 96 in total. It showed comparatively a higher percentage frequency of 88% for 'always' and a low percentage frequency for the scales of 'never' which was 12%. So, within the composition of 34 extreme-scale participants, most of the in-survey participants hoped to use online quizzes to enhance communication skills. The mean usage of online quizzes for 'always' was 1.200 whereas it was 1.500 for 'never'. With the 5-point scale used, having a threshold mean value of less than 2.500 showed the need for online quizzes. The mean value of 'always' was

comparatively less than the scale of 'never', hence, the hypothesis could be tested. According to the standard deviation, the mean values of 'always' and 'never' were expected to vary between ±0.406 and 0.577 respectively. So that, the mean scores for 'always' were within 0.406 points of 1.200, whereas for 'never', scores were within 0.577 points of 1.500.

Independent samples t-test and Levene test were used to investigate the following hypotheses, where $\mu1$ and $\mu2$ were the population means for the scales of 'always' and 'never', respectively.

H_o: $\mu1 - \mu2 = 0$ ("the difference between the mean scales of 'always' and 'never' is equal to 0")

H_1: $\mu1 - \mu2 \neq 0$ ("the difference between the mean scales of 'always' and 'never' is not 0").

TABLE IV: INDEPENDENT SAMPLE T-TEST OF USAGE OF ONLINE QUIZZES

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean dif.	Std. Error dif.	95% Confidence Interval of the Difference	
									Lower	Upper
Usage of online quizzes	Equal variances assumed	2.1	0.155	−1.32	32	0.195	−0.300	0.226	−0.761	0.161
	Equal variances not assumed			−1.01	3.40	0.380	−0.300	0.298	−1.187	0.587

TABLE V: DESCRIPTIVE STATISTICS OF THE REQUIREMENT OF COMMUNICATION SKILLS

Requirement of communication skills (CMS)	N	Mean	Std. Deviation
1. Important to learn FA	96	3.833	1.166
2. Institutions should assist students to improve CMS	96	3.885	1.195
3. Help overcome day-to-day challenges	96	3.989	1.080
4. Institutions should include CMS in the curriculum	96	3.906	1.240
5. Help find a good career in accounting	96	3.760	1.335
6. Required for 21st century accountants	96	3.739	1.283
7. Important for any profession	96	4.250	0.973
8. Readiness for FA	96	4.052	1.127
9. Cope with future advancements in career	96	3.468	1.398
Total		3.876	1.218

As shown in Table IV above, the p value of 0.155(α) is more than 0.05 as of Levene's test, and therefore, the established null hypothesis is accepted, and it is concluded that the difference between the means of 'always' and 'never' is equal to zero (0) for the usage of online quizzes to improve communication skills. So, the variance in the usage of online quizzes to improve communication skills of 'always' is not significantly different from that of 'never'. The perceived *p* value was less than α, and it tells the researchers to look for the 'equal variances not assumed' for the discussion of t-test and confidence intervals. The *t*-test, *p* value of 0.195 was greater than the α value of 0.05. So, the group means were not statistically different, and the established null hypothesis was accepted.

With the mean difference of minus 0.300 between 'always' and 'never', the confidence interval (CI) suggested that the mean difference was not significant as zero appeared between −0.761 and 0.161. According to the findings of *p*-value and confidence interval differences, it was concluded that students believed in the relevance of online quizzes to enhance their communication skills.

C. *Requirement of Communication Skills (RQ3)*

The survey included nine items (requirements) for communication skills. The scales varied from 'extremely disagree' to 'extremely agree'. This overall mean of the requirement of communication skills reflected the importance of nine constructs. A higher mean value for the requirement of communication skills showed the students' acceptance of communication skills to enhance occupational skills.

Table V above summarizes the results about the importance of infusing communication skills within the FA curriculum. All constructs were well above the threshold value of 2.500, hence, the given requirements of communication skills were equally important. The highest mean value of 4.250 further suggested that communication skills were vitally important for any profession within the domain of FA. The lowest score was for coping with future advancement in the FA career, nonetheless, the mean value of this was still positive scoring (3.468). A one-way ANOVA was applied to check the statistically significant differences between those items. If the significance existed, the

descriptive statistics would be used to determine the most relevant requirement of communication skills with reference to the highest mean value.

H$_o$: μ1 = μ2 = μ3 = μ4 = μ5 = μ6 = μ7 =μ8 = μ9 ("the means of all requirements for communication skills are equal")

H$_1$: μ1 ≠ μ2 ≠ μ3 ≠ μ4≠ μ5 ≠ μ6 ≠ μ7 ≠ μ8 ≠ μ9 ("the means of all requirements for communication skills are not equal")

As of the calculations of one-way ANOVA, it was found that there were statistically significant differences in mean scores between at least two groups (F (8,855) = [3.168], p = 0.002). This significance existed since the probability (p) was less than 0.05. Henceforth, as Table VI depicts, the mean value of the requirement of communications skills suggests that educationists use communication skills within the learning pedagogy.

TABLE VI: ONE-WAY ANOVA FOR REQUIREMENT OF COMMUNICATION SKILLS

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	36.905	8	4.613	3.168	0.002
Within Groups	1244.844	855	1.456		
Total	1281.749	863			

D. Requirement Of Assessment Criteria for Communication Skills (RQ4)

It was important to know the criteria available to assess the required level of communication skills. If significance existed between different requirements, descriptive statistics would be used to determine the best criteria to assess communication skills with reference to the highest mean value.

H$_o$: μ1 = μ2= μ3 ("the means of all assessment criteria for communication skills are equal")

H$_1$: μ1 ≠ μ2 ≠ μ3 ("the means of all assessment criteria for communication skills are not equal")

One-way ANOVA was applied to compare the impact of three different assessment criteria for communication skills in evaluating the communication skills in the knowledge creation of FA students. The survey included three criteria (talking and listening, adaptability, and resourcefulness), hence, hypotheses, where μ1 to μ3 were the population, means for all the assessment criteria of communication skills.

Table VII above summarizes the results of the criteria for assessing communication skills within the FA curriculum. All independent parameters ranked more than 3.8. The mean of parameters was well above 3 which denoted the required level of importance for the given assessment criteria. The highest mean value of 4.177 further suggested that adaptability was vitally important to assess communication skills within the domain of FA.

TABLE VII: DESCRIPTIVE STATISTICS OF ASSESSMENT CRITERIA FOR COMMUNICATION SKILLS

Assessment criteria	N	Mean	Std. Deviation
1. Talking and listening skills	96	3.854	1.289
2. Adaptability	96	4.177	1.178
3. Resourcefulness	96	4.031	1.164
Total	288	4.020	1.215

TABLE VIII: ONE-WAY ANOVA OF ASSESSMENT CRITERIA FOR COMMUNICATION SKILLS

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.021	2	2.510	1.708	0.183
Within Groups	418.854	285	1.470		
Total	423.875	287			

Table VIII above shows the calculations of one-way ANOVA and it was found that there were no statistically significant differences in the mean score between at least two groups (F (2,285)= [1.708], p = 0.183). This was so as the probability (p) was more than 0.05. The mean value of the assessment criteria for communication skills recommends instructors to use communication skills within the FA learning pedagogy. A one-way ANOVA was vitally important when there were two or more levels: talking and listening skills, adaptability, and resourcefulness, in assessing communication skills. According to the findings, F was 1.708, which was not significant with the p-value of 0.183 and it was more than 0.05. This reflected that there was no statistical significance between the means of different assessment criteria. Nevertheless, future researchers may test the most significant assessment criteria out of all three by using the post hoc Tukey HSD test.

IV. DISCUSSION

Integrating communication skills into the FA curriculum revealed several implications that were confirmed by the results. The findings indicated a high level of students' awareness of the importance and relevance of communication skills to their study programs and employability skills. Students showed readiness and willingness to use new instructional and assessment methods, pedagogies, and technologies. Similar results were reported by Moncada and Moncada [1] and Saini and Al-Mamri [17]. The findings of implementing online quizzes to improve communication skills were in line with earlier studies presented by Mihaltan [4] and Sheridan [5]. Although the results showed that 88% of students preferred to have online quizzes in accounting studies, several curriculums in FA did not pay much attention to this technique [22]. FA students desired to integrate more quizzes in their curriculum as a genre of games [15]. This creates an opportunity for future instructors to use and sustain quizzes in order to improve communication skills in the rapidly changing digital era [14]. The significance of communication skills for both male and female students was stressed by many authors [5, 20] with similar results reported in this study. Irrespective of gender differentiation, communication skills were found to be relevant and valued by all students. This was in line with the

Omani context of accepting communication skills for the FA curriculum [17]. It was speculated that the views between males and females showed significant differences due to contextual influences. For example, Oman is a conservative Muslim Arab country in the Gulf area where traditions and norms play a major role in shaping people's lives in almost every aspect [37]. The national culture normally expects females to be more reserved and introverted and males to be more outgoing, demonstrative, and extroverted. Nonetheless, the results from this study refute this assumption and this might be due to recent social reforms and liberal freedom and gender equality [38]. The similarity of attitudes between both genders about the relevance of developing communication skills in the Omani context suggests future researchers could check the necessity of communication skills in different regions to verify the applicability and validity of the results [1, 13].

In relation to investigating the impact of online quizzes on developing communication skills, the findings show that online quizzes are relevant to improving communication skills for FA students. This goes in line with the results of a study by Carenysa and Moyab *et al.* [9] in Spain. Omani FA students show a high level of awareness about the relevance of using online quizzes in developing their communication skills. Such awareness would encourage instructors to develop their pedagogies and instructional and assessment methods to incorporate such techniques and cater to the students' needs and educational aspirations. Since low technological competencies have been identified among instructors of higher education in Oman [39] policy makers are encouraged to redesign and develop instructor preparation and training programs and accommodate elements of QBL.

Based on the results for the requirement of communication skills, all the parameters included are important according to the students. The most important factor is that communication skills are relevant to all professions in the accounting area. A similar result is reported by Arquero and Michel *et al.* [28]. This study identifies suitable assessment criteria for measuring knowledge acquisition in communication skills. It is measured by using three qualitative rubrics. The survey legend claimed that all the selected assessment criteria [14] were important in measuring communication skills and calculated the mean scores for all the criteria well above the average of 2.500. Therefore, future FA instructors may include these three parameters within the pedagogy of teaching and learning communication skills. Meanwhile, they can also test other parameters according to contextual, regional, or global demand.

Several implications emerge from the findings of this research. Firstly, students' willingness to include communication skills within the FA curriculum was evident. Such awareness would encourage institution-student communication, where institutions are encouraged to be dynamic in investing in student readiness to incorporate such teaching strategies and techniques which are believed to reflect positively in improving students' skills and future employability options [40]. Higher Education Institutes (HEIs) could consider communication skills as a separate module or learning outcome within available modules such

as employable skills. Second, introducing communication skills via a digital platform brings some implications. One possible method is embedding quizzes via Microsoft or Google Forms to enhance communication skills. This would add a sense of modernity to the curriculum making it more appealing to learners of the 21st century.

There are several aspects of contribution to knowledge for this study and its findings. It contributes to the existing body of knowledge on communication skills with its focus on FA students in the Omani context. The timeliness of conducting this study is of great importance since it is conducted during the pandemic where public attitudes are shifting regarding online education and its relevant technologies and methods [41, 42]. The concept of knowledge is theoretical whereas skills are more practical. It is required to have a sound mechanism for migrating theory into practice so that online quizzes can be used to enhance communication skills in the digital era. It empirically justifies that existing students' knowledge of communication skills can be enhanced with a technology-driven platform. According to the existing literature [6, 17], there is a limited scope to contribute accounting profession by way of Microsoft applications. This study offers evidence to justify the knowledge creation of communication skills to the body of accounting knowledge. Teaching FA under the tech-savvy platforms empowers instructors to experience comfortable teaching and learning process. Instructors could use these qualitative rubrics in assessing communication skills. For example, the given assessment criteria could be further divided into grades in awarding grades to learners.

V. CONCLUSION

The needs of communication skills are equally important regardless of gender. The usage of online quizzes' importance is relevant to improving communication skills. Thereby, new research can be carried out to test the improvement in communication skills with the help of online quizzes by conducting pre and posttest. The study also highlights a trend for technology driven teaching pedagogies embedded in the communication skill parameters and communication skill assessment criteria. Future studies may test the applicability of the given framework for assessing other subjects instead of FA or level of studies in undergraduate or graduate studies. Other studies may test different assessment criteria to assess the performance of communication skills with different domains outside the Gulf Cooperation Council (GCC). This research significantly explored the critical areas in FA education with effective occupational skills and provided insights on students and teachers of FA within the Omani context during the COVID-19 pandemic. Furthermore, it identified a novel instructional technology for teaching and learning FA provided that better technology is in place. The findings of this research are expected to promote acceptance from the stakeholders in FA and add value to a smooth transition of classroom knowledge into workplace skills. The educational paradigm is shifting from a traditional (face-to-face) environment to a new form of teaching which involves online and quiz-based learning.

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