Smartphone Applications as a Teaching Technique for Enhancing Tertiary Learners' Speaking Skills: Perceptions and Practices

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Abstract—Utilizing technology and the Internet to keep up with the 21st century language teaching and learning has become trendy in this digital era, highlighting promising features that are expected to tackle one of the most demanding crucial skills in English as a foreign language (EFL) context; yet a difficult one to master; that is, speaking English accurately, confidently and fluently. This study aims at investigating teachers' perceptions and the current actual practices of utilizing a package of three categories of smartphone applications as a prescribed teaching technique with the purpose of fostering Saudi tertiary students' oral skills, correlating these perceptions with actual classroom practices. Adopting a mixed-mode approach, the data for this study were gleaned from two data collection instruments– an electronic questionnaire designed using SurveyMonkey as a platform, and encoded data from focus group discussion. On receiving 45 complete responses, the IBM SPSS (V24.0) was used to do the statistics, whereas the data from the discussion were thematically analysed. The findings revealed that the majority of participants have high, inspiring positive perceptions of using smartphone applications in teaching speaking. Based on the data obtained, it is concluded that despite EFL teachers' high positive perceptions of smartphone applications used for promoting adult learners' speaking skills, classroom practices reveal weaknesses and insufficient actual experiences. Pedagogically, the study recommends innovating, implementing, and integrating smartphone applications in teaching oral skills, along with drilling teachers and learners on how to effectively utilize them.

Keywords—Smartphone applications; teaching technique; tertiary learners; speaking skills; perceptions and practices

1 Introduction

There is an increasing awareness of the vital, crucial role placed on communicative skills in language teaching and learning; top of these skills is speaking accurately, confidently and fluently [1]. Analysing learners' perspectives, one wonders why speaking is always into scope; why EFL learners always consider their success at mastering this specific skill as a satisfying accomplishment worthwhile celebration; whereas, they label their inefficiency in speaking as the true failure for them.

The advanced and giant leaps in technology in the 21st century have brought a wide range of changes touching and even almost controlling every single corner in our life. Teaching and learning in this digital Internet-dominant world have become true challenges facing all those involved in the educational process. To cope with this high-tech era, during which most, if not all, adult learners are Internet-savvy [2], teaching strategies and techniques must be innovative involving technology in language classrooms [3; 4] amidst the prevailing promising features of Internet software and smartphone applications in enriching teaching techniques used in order to promote learners' oral performance. Therefore, today's teachers are challenged to assist students in attaining mastery of core subjects as well as gain 21st-century knowledge and skills [5]. Education has been promoted by the vast advent and intervention of technologies and the Internet that have facilitated better teaching and learning environment [6]. In brief, making use of the Internet and smartphone applications in EFL learning can make dreams come true.

Good oral skills are inevitable in social life as well as career opportunities [7]. Having enough efficacy of speaking is a crucial task for EFL learners; yet the most complex and challenging of the four language skills [8; 9; 10; 11; 12]. In EFL context, a learner is struggling among various factors hindering mastering this prominent crucial skill in communication. These confronted obstacles impede mastering speaking skills, making EFL learners' oral performance below expectations; and Saudi students are no exception [13; 14; 15; 16; 17]. What aggravates the issue for EFL learners is that even "In a traditional classroom, they can only learn from what the teacher knows" [18, p. 1]. That is why this study was conducted to survey teachers' perceptions of implementing smartphone applications as a teaching technique to boost EFL adult learners' speaking skills in terms of confidence, accuracy and fluency, as well as their practices of these applications; this is also expected to work as an indirect motive to propose and encourage teachers to utilize such applications in EFL classrooms.

Most schools ban accompanying smartphones into classrooms or even to school. This is supposed to create what is known as generational conflict. On the contrary, this study suggests making use of these smartphones as a teaching technique instead of prohibiting them; this is anticipated to promote learners' speaking skills and deemed to make learning more enjoyable as well. Learners processing e-learning are better than those who stick to the traditional settings [19; 20; 21]. Consequently, due to recognizing the proliferating advancements and the role smartphones and other mobile devices can play in language teaching and learning, a new term of 'Mobile-Assisted Language Learning' (MALL) has evolved in very recent studies reflecting the revolution expected to bring dramatic changes in language learning. Brown and Lee [22] elaborate that smartphone use has increased dramatically, rendering access to all media virtually ubiquitous. For instance, in Japan, smartphone student users have become the norm rather than the exception [23]. Therefore, this study comes at a time when insufficient studies are found in terms of using Internet tools and smartphone applications for enhancing speaking skills [24; 25; 26; 27], specifically in EFL setting. We live in the era of the Internet, and there are growing demands on almost everyone, including teachers, to become technologically literate [28]. The clock is ticking and time in this digital life is on the move; however, EFL adult learners' speaking perfor-

mance is still unsatisfying. Thus, why do not EFL teachers make use of smartphone applications in EFL classrooms to get along with this trend, making use of smartphones instead of banning them?

Therefore, this study was conducted to investigate EFL teachers' perceptions of incorporating smartphone applications in teaching speaking to Saudi tertiary students, and to identify the density of actual practices of these applications in EFL classrooms.

2　Literature Review

Literature is rich in regard with utilizing technology in language classrooms; however, in terms of promoting speaking skills utilizing Internet tools, few studies could be traced, especially in the Arab world.

2.1　Theoretical perspectives

Today's teachers have exciting opportunities to go beyond traditional practices through the use of innovative technology and media to enhance learners speaking skills. Adopting the ASSURE Model asserted by [5], the study requires drawing the attention of teachers to the careful planning in teaching speaking skills following a technique of six-step model dwells on the four initials of ASSURE:

- Analyse learners
- State standards and objectives
- Select strategies, technology, media, and materials
- Utilize technology, media, and materials
- Require learners' participation
- Evaluate and revise [5, p. 53]

Literature and experience have shown that well-designed teaching techniques start with the induction stage awakening learners' interest and then move on to present the target material, engage students in practice with feedback, assess their comprehension, and provide the required remedial follow-up activities. The ASSURE model incorporates all these events of instruction in order to assure effective teaching techniques that are intended to present true changes in learners' oral performance. EFL Teachers are expected to well-follow the ASSURE model utilizing Internet -based smartphone applications to help surmount the difficulties encountered by learners while speaking English [29]. This study is drawing on the implementation of the ASSURE model within the Communicative Language Teaching Approach (CLT). CLT is an 'umbrella' term to capture the essence of improving learners' ability to communicate [30] productively and receptively through engaging students in the pragmatic, authentic, functional use of language for meaningful purposes complemented by accuracy and fluency [31]. Not only does the Internet provide access to extensive resources, it also allows teachers and students to communicate with other teachers and students all over the world. In sum, the vital role of the Internet in education is not only continuing but increasing as well.

Dynamic practices are based on inspiring and positive motivation [32; 33; 34]. It is believed that the implementation of smartphone applications with the aim to promote learners' speaking skills depends mainly on the effective actual classroom practices directed and facilitated by teachers; these practices are reflections of teachers' perceptions. This study adopts the tenet by Albert Einstein, "It is the supreme art of the teacher to awaken joy in creative expression and knowledge." The pedagogical approaches of teachers are underpinned by their beliefs of knowledge and their applications of learning theory. Thus, teachers' perspectives are concluded to impact both teaching and learning in this Internet-prevalent era [3]. Consequently, the present study while surveying teachers' actual classroom practices of smartphone applications for speaking, it investigates their perceptions of these applications, which are expected to create positive teaching and learning environment that result in active student-centred learning.

2.2 Review of related studies

Hundreds of research studies have concluded that using technology to teach is better than the chalk-and-talk traditional method [19; 20; 21; 35]. Literature provides a body of studies proving that using technology is deemed to be an effective technique in language teaching and learning. Nevertheless, few studies were conducted on utilizing technology, the Internet, and smartphone applications in teaching speaking skills. Among those few studies, the following ones are discussed.

[36] anlaysed preservice English teachers' perceptions and classroom practices concluding that most participants expressed their willingness to practise teaching with technology; however, the researcher ended his research in a way that made it questionable if these teacher candidates will experiment technology effectively once on the job. It can be revealed from this conclusion that there might be a gap between perception and true practices. Another study by [37] exemplifies integrating methods of the Internet into language curriculum in a multicultural society. The study shed light on the vital role of the Internet in language classrooms. [38] explored the relationship between teachers' perceptions of the benefits of using digital technology for curriculum development and individual differences among teachers, uncovering significant effect of such factors in the perceived effectiveness of digital technology. Attempting to find a correlation between contextual factors and the use of CALL in teaching practices, [39], surprisingly, concluded the views of technology neither influence the teaching practice nor they are interrelated with contextual factors.

Likewise, [40] explored the barriers that weaken utilizing educational technology in a community college in Malaysia. Their study findings revealed the readiness of lecturers to use technology in teaching practices; nonetheless, they encounter some obstacles, such as technical support, administrator support, computer self-efficacy and accessibility. They recommended institutions to provide more training for instructors on applying technology. [41] conducted a case study in Thailand comparing learning outcomes between e-learning and traditional classrooms. The research findings showed that online practice was directly beneficial to promote language skills, and learners' autonomy and motivation. Moreover, [42] found a mismatch between the

participant instructors' positive perceptions and their current practices. Finally, the study findings analysis of [43] uncovered that teachers to the Arab students in the Saudi School in Kuala Lumpur face many difficulties when teaching speaking skills such as the absence of speaking tests and the lack of teaching resources. Consequently, the present study proposes a rich, authentic teaching and learning resource for EFL teachers to utilize – smartphone applications.

2.3   Smartphone applications

The target smartphone applications were classified into three categories as follows: the first category included speech-to-text transcription applications such as *Voice Recognition Software, Speech texter, Speechnotes, Voice Notebook, and Speech to Text Converter*; the second addressed audio recording animation-based applications such as *Virtual Speaking Buddy, Talking Tom, Voki, Talking Angela, Second Life* and *English Speaking Buddy*, while the third was about automatic speech analysis video-based applications such as *English Central,* and *Tell Me More*. Respondents were first briefed on the applications, and then were given amended time testing, and reflecting on the target three categories of smartphone applications investigated before responding to the questionnaire and prior to the debate.

3   Research Methodology

This descriptive cross-sectional survey study collected data at one point in time to investigate perceptions and attitudes, and to identify the extent of actual practices as well [44]. The present research adopted the mixed mode approach, for which the quantitative data were gleaned through a 5-point Likert scale electronic questionnaire, whilst the qualitative data were collected from focus group discussion to deepen the quantitative data obtained earlier. An increasingly popular method of survey research in the 21st century involves the use of tablets and smartphones as vehicles for completing online surveys [45]. The questionnaire was prepared and then inserted into SurveyMonkey – a platform for collecting and analysing surveys. The link created was shared over WhatsApp with 49 EFL teachers working in higher education institutions in Saudi Arabia in 2018, who were selected using the convenient sampling technique, which means "a sampling procedure in which the researcher selects units or respondents that are close at hand or easy to reach or just happening to be available at the time when data collection is taking place" [46]. Forty-five respondents completed the questionnaire; at a high completion rate of approximately 92%. Only the completed forms of the questionnaire are processed and analysed here. Then, five respondents were randomly recruited for the focus group discussion.

3.1   Instrumentation

The data collection tools used were a self-designed questionnaire, developed by the researchers after consulting a large group of academicians and professional for its

constructs and content, and focus group discussion. The questionnaire was an electronic one comprising of 29 click-and-go items. There were three sections in the questionnaire that addressed utilizing smartphone applications for fostering EFL adult learners' oral performance: the first section, including 5 items, collected demographic details about the participants; the second, including 12 rating items, explored teachers' perceptions, and the third, including 12 rating items, investigated their practices. There were two main domains in the questionnaire – perceptions, and actual practical practices. The Five-point Likert scale for the first domain; the five points on the scale were as follows:

Strongly Disagree	=1
Disagree	=2
Neutral	=3
Agree	=4
Strongly Agree	=5

whilst for the second domain:

Never	=1
Rarely	=2
Sometimes	=3
Often	=4
Always	=5

For the guided focus mini group discussion, data got first encoded to set codes and elicit themes for later thematic analysis. Five themes emerged from 13 codes. Two raters analysed the qualitative data gained; only those encoded data agreed upon among the two raters were presented and analysed.

3.2 Validity and reliability

Validity and reliability are essential keys to effective research. There are various types of validity and reliability [47]. "Each question of the questionnaire must be related obviously to the topic under investigation"[48]. Validity is important to demonstrate that the concept and construct match the proposed purpose to ensure sound evidence [44]. To maintain the validity of the survey questionnaire, a preliminary tryout of the questionnaire was carried out pre-tested to four EFL teachers from the sample; to identify ambiguous questions in the instrument employed and be able to re-align them to the objectives. Then, the external face validity of the questionnaire was ensured by referring to 7 EFL instructors working in higher educational institutions; whereas for the content and construct validity, four figures of academic expertise were consulted. All comments, feedback, and remarks were considered, and due corrections were made accordingly.

In regard to reliability, the SPSS (Version 24.0) was used to calculate Cronbach's alpha of internal consistency. The results are presented in the following tables for the two domains – teachers' perceptions, and their actual implementation of smartphone applications for fostering EFL learners' speaking skills.

Table 1. Reliability of the First Domain (n=45)

Domain I: Perceptions		N	%	Reliability Statistics	
				Cronbach's Alpha	*N of Items*
Cases	Valid	45	100.0	.891	12
	Excluded[a]	0	.0		
	Total	45	100.0		

Table 2. Reliability of the Second Domain (n=45)

Domain II: Actual Practices		N	%	Reliability Statistics	
				Cronbach's Alpha	*N of Items*
Cases	Valid	45	100.0	.878	12
	Excluded[a]	0	.0		
	Total	45	100.0		

Based on the data presented in Table 1 and Table 2, the Cronbach's alpha was 0.891 and 0.878 for the perception domain, and the actual practices domain respectively. These coefficient results are very good indicators of the questionnaire items and scores reliability.

4 Results

After collecting the data, the SurveyMonkey platform was used to present, analyse and export the results; moreover, the SPSS (Version 24.0) was used to do specific calculations. The data are presented here according to the section they fall into.

4.1 Section one data: Demographic background

The demographic background information about participants obtained from the responses to the first section in the questionnaire is tabulated as follows:

Table 3. Demographics of Participants (n= 45)

S	Field	Category	N	%
1	Gender	Male	42	93.33
		Female	3	6.67
2	Age (In years)	22 – 29	1	2.22
		30 – 39	17	37.78
		40 – 45	17	37.78
		46+	10	22.22
3	Teaching Experience (in years)	1 – 3	0	0
		4 – 7	2	4.44
		8 – 10	11	24.44
		11 – 13	15	33.34
		14+	17	37.78
4	Qualification (Level of Education)	Bachelor	12	26.67
		High Diploma	4	8.89

		Master	26	57.78
		Ph.D.	3	6.67
5	The efficiency of using smartphone applications for general purposes	Expert	14	31.11
		Efficient	17	37.78
		Fair	10	22.22
		OK	3	6.67
		Poor	1	2.22

From the data shown in Table 3, the majority of participants were male (93.33%); this is due to the segregation of the education system in Saudi Arabia based to gender; hence, it was difficult for the researchers to reach more female teachers. Moreover, most participants' ages, 34 (75.56%), range from 30 to 45 years with considerable teaching experience, at least 8 years; whilst most of them have been teaching from 11 to more than 14 years. In terms of the education level, most respondents hold either bachelor degrees (26.67%) or master degrees (57.78%). The data presented also showed that most participants can use smartphone applications for general purposes, but to varying degrees; nonetheless, only one participant (2.22%) was found at a poor level in this regard.

4.2 Section two data: domain I (perceptions)

The first domain comprises of 12 items which aim at investigating EFL teachers' perceptions of incorporating smartphone applications to promote adult learners' oral performance. The scales obtained from the questionnaire and processed by the SPSS V24.0 are tabulated below:

Table 4. Teachers' Perceptions Domain (n= 45)

Perception Scales					
		Frequency	*Percent*	*Valid Percent*	*Cumulative Percent*
Valid	Strongly Disagree	18	3.3	3.3	3.3
	Disagree	50	9.3	9.3	12.6
	Neutral	38	7.0	7.0	19.6
	Agree	258	47.8	47.8	67.4
	Strongly Agree	176	32.6	32.6	100.0
	Total	540	100.0	100.0	

Table 4 presents the frequency and percentage for the five scales of the perception domain as done by the SPSS V24.0. Total responses of 540 (100%) are the result of the 45 respondents' answers to the 12 items of the domain. The total responses were as follows:

- 176 (32.6%)   'Strongly Agree'
- 258 (47.8%)   'Agree'
- 38 (7%)   'Neutral'
- 50 (9.3%)   'Disagree'
- 18 (3.3%)   'Strongly Disagree'

From the data presented in the table, it can be concluded that the scales of 'Strongly Agree' and 'Agree' are more frequent than other scales. By using 'Neutral' as a midpoint of 3, these calculations reveal the highly inspiring perceptions that teachers have towards implementing smartphone applications in teaching speaking skills.

Table 5. Teachers' Perception Item Analysis* (n= 45)

Statement	Mean	Standard Deviation	Responses Percentage (%)		
			SA+A	N	SD+D
1. I believe that speaking skill is one of the important skills in teaching and learning EFL. (SPEAKING)	4.6	0.53	97.78	0	2.22
2. I think that speaking is an important skill in communication. (SPEAKING)	4.7	0.71	97.78	2.22	0
3. When mentioning the four language skills; reading, writing, listening and speaking, speaking comes... (a. first, b. second, c. neutral, d. third, e. last) ** (SPEAKING)	4.35	0.75	93.33	0	6.66
4. I think that smartphone applications are convenient tools for promoting students' speaking performance in general. (Overall Perception)	3.9	1.07	82.22	8.89	8.89
5. I think that speech-to-text transcription applications are convenient tools for boosting students' speaking accuracy. (Rating: 1)	3.6	1.21	68.89	11.11	20
6. I think that automatic speech analysis video-based applications are convenient tools for enhancing students' speaking fluency. (Rating: 3)	4.0	1.28	80	13.33	6.66
7. I think that audio recording animation-based applications are convenient tools for building students' confidence in speaking. (Rating: 2)	3.9	1.21	75.56	11.11	13.33
8. I believe that the Internet-based speaking applications are adequately sufficient in number. (Definite Perception)	3.11	1.20	53.33	15.56	31.11
9. I believe that smartphone applications provide low-pressure opportunities for students to practice speaking. (Definite Perception)	4.0	0.89	88.88	4.44	6.66
10. I have the impression that smartphone applications represent useful tools for shy and anxious students. (Definite Perception)	3.97	0.96	82.22	4.44	13.33
11. I believe that smartphone applications provide authentic speaking materials. (Definite Perception)	3.68	0.94	73.33	4.44	22.22
12. I feel that smartphone applications are easy for students to use. (Definite Perception)	3.66	1.13	68.89	11.11	20

* The responses were scaled as follows: (SA = (5) for Strongly Agree, A = (4) for Agree, N = 3 for Neutral, D = (2) for Disagree, and SD = (1) for Strongly Disagree).
** For Statement No. 3, the scale followed the regular pattern in the questionnaire, (First = (5) = Strongly Agree, Second = (4) = Agree, Neutral = (3), Third = (2) = Disagree, and Last = (1) = Strongly Disagree).

Table 5 presents the detailed item analysis of the domain concerning teachers' perceptions. Using a midpoint of 3.00 for the mean scale, all items in the perception domain are higher than the midpoint. From the data tabulated above for items 1, 2 and 3 with the highest scale, it can be detected that the majority of teachers do realize the crucial role played by speaking in teaching and learning English. Results of Item 4 shows the high positive perception of the overall use of smartphone applications as a teaching technique; however, items 5, 6 and 7 uncover that this perception is higher for using applications category used for fluency, then for confidence and lastly for accuracy. Most respondents agree upon Items 8 and 12 that smartphone applications

are sufficient in number and easy to use. Finally, smartphone applications were seen as a good source of authentic materials, helping shy anxious students in less stressful teaching and learning environment as revealed by Items 9, 10 and 11.

4.3 Section three data: domain II (actual practices)

There are 12 items in the third section which represents the second domain of the study.

Table 6. Teachers' Practices Domain (n= 45)

		Frequency	Percent	Valid Percent	Cumulative Percent
		Actual Practices Scales			
Valid	Never	53	9.8	9.8	9.8
	Rarely	80	14.8	14.8	24.6
	Sometimes	179	33.1	33.1	57.8
	Often	140	25.9	25.9	83.7
	Always	88	16.3	16.3	100.0
	Total	540	100.0	100.0	

The total responses of the 45 EFL teachers for the 12 items in the second domain that identifies actual classroom practices as calculated by the SPSS version 24.0 and presented in Table 5.3a were 88 (16.3%), 140 (25.9%), 179 (33.1%), 80 (14.8%), and 53 (9.8%) for 'Always', 'Often', 'Sometimes', 'Rarely', and 'Never' respectively. By using 'Sometimes' as a mid-point, it can be concluded that there was a significant tendency to positive responses to actual practices. However, this positive application in the second domain is much lower than it was for the first domain of perceptions.

Table 7. Teachers' Practice Item Analysis (n= 45)

Statement	Mean	Standard Deviation	Responses Percentage (%)		
			A+O	S	R+N
1. During the assessment of students' speaking skills, I find out that most of their performance is below expectation. (SPEAKING difficulty)	3.93	0.69	73.33	26.67	0
2. I provide sufficient speaking practices utilizing smartphone applications in everyday class. (Practice)	2.91	1.14	28.89	37.78	33.33
3. I plan for implementing Internet-based materials in advance. (Practice)	3.47	1.25	28.89	31.11	20
4. I receive training for fostering students' speaking skills using smartphone applications. (Training)	2.96	1.14	33.33	31.11	35.55
5. I have the flexibility to utilize smartphone applications in teaching speaking without adhering to the curriculum plan. (Curriculum)	2.51	1.07	17.78	35.56	46.66
6. I motivate students to use smartphone applications for drilling on speaking. (Practice)	3.44	1.13	46.66	33.33	20
7. I use smart phone applications effectively when teaching speaking in the classroom. (Practice)	2.56	1.19	22.22	33.33	44.45
8. I ask students to do out-of-class speaking activities using smart phone applications. (Practice)	3.02	1.28	40	24.44	35.56

9. Smartphone applications improve students' speaking performance in general. (General Impact)	3.49	1.01	48.89	35.56	15.55
10. Text-to-speech transcription applications enhance students' speaking accuracy. (Rating: 1)	3.29	1.19	40	37.78	22.22
11. Automatic speech scoring video-based applications foster students' speaking fluency. (Rating: 3)	3.56	1.03	48.89	37.78	13.33
12. Audio recording animation-based applications boost students' confidence in speaking. (Rating: 2)	3.67	1.02	55.55	33.33	11.11

* The responses were scaled as follows: (A = (5) for Always, O = (4) for Often, S = 3 for Sometimes, R = (2) for Rarely, and N = (1) for Never).

Unlike the first domain of perception and by using 3.00 as a midpoint for the mean scale, Items 2, 4 and 5 of the second domain of actual practices were below the midpoint. As shown in Table 7 above of detailed practice items scales, receiving training, the room of flexibility freedom in the syllabus, and the effective use of smartphone applications were the least scaled items. With the highest scale of 3.93, Item 1 shows that speaking is a real problem facing EFL learners during language assessment. In terms of the strongly agree/agree percentage as shown above, items of planning and in-class practices were the least. Teachers still maintain a high practical appreciation of the positive impact of smartphone applications used for oral skills. For rating the three categories practically, applications for confidence came first, then those for fluency; whereas accuracy applications came last.

4.4   Correlation between perceptions and practices

Attempting to correlate the perceptions with actual practices, the SPSS version 24.0 was used to calculate the Pearson's r. In terms of correlations, it was found that teachers' practices were correlated positively by their perceptions; but at a low insignificant positive linear correlation as revealed by the IBM SPSS V24.0 for calculating Pearson Product Moment Correlation Coefficient r = 0.3.

This means that teachers' high positive perceptions resulted in a moderate increase in their actual practices. This might be accepted when correlating perceptions and practices in human research.

On the other hand, no significant correlation was found between participants' gender, age, years of teaching experience, qualifications or level of proficiency of using smartphone applications and their actual practices.

The significant positive but weak correlation between the domain of teachers' perceptions and their actual practices is depicted in Table 8.

Table 8. Correlation between Perceptions and Practices

		Correlations	
		Perception Scales	*Actual Practices Scales*
Perception	Pearson Correlation	1	.309**
	Sig. (1-tailed)		.000
	N	540	540
Practices	Pearson Correlation	.309**	1
	Sig. (1-tailed)	.000	
	N	540	540
**. Correlation is significant at the 0.01 level (1-tailed).			

4.5   Data from Focus Group Discussion

P1

A1. Actually, a waste of time.
B1. But do you think they simulate real communication?
B3: These are not technology; these are visual aids.
C1: For me, it depends on students' level. Are they capable of such tools?... but for poor level students, they may lead to frustration.
C8: For me, I prefer real life situations and in class face-to-face communication.

P2

A5. It depends. In real communication, we should use gestures and facial expressions that make speaking more effective.
C2: Yes, I agree with you. It's a matter of input and output.
C4: For some, they may distract them from the lesson.

P3

A4. They help in communication.
B2. Yes, using videos, games etc. are helpful.
B4: I mean using these online and internet tools.
B5: do you remember Skype. Some teachers use it to communicate overseas during the same class.
B8: Yes. They give chances to students to participate …and…attract their concerns.
C3: The are convenient for all levels…Internet tools can convey different levels of various skills…

P4

A2. I don't agree with you.
A3. They are helpful and make the teaching mission easier.
B6: They make students more interactive and…these tools make the target materials more attractive for students.
C5: All learners like technology …. It helps engage students who don't care, make them more involved…..in class and out class….variety of sources such as emails…applications……
C7: We can adopt and adapt convenient sources…or…tools.

1)   General Perception
Moderator: What do you think of using smartphone applications in teaching speaking skills?

P5

A6. In my opinion, they are very effective.
B7: Yes, of course. I'm totally in favour of using the internet in language teaching.
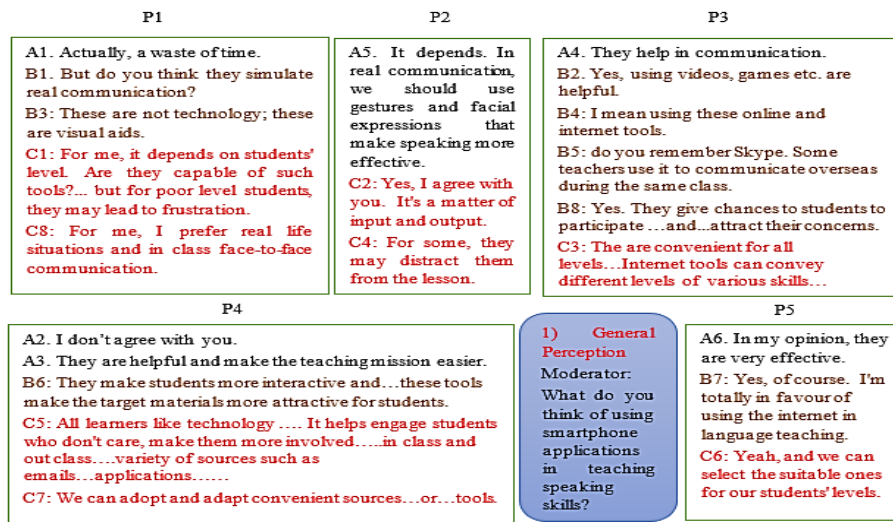C6: Yeah, and we can select the suitable ones for our students' levels.

Fig. 1. General Perception

Based on the qualitative data obtained from the focus group discussion (n=5) as encoded in Figure 1, it was inferred from the debate among the group individuals that 3(60%) participants (P3, P4, and P5) were to a high degree in favour of using the internet tools-based techniques in teaching speaking skills and labelled them as attractive, interactive, effective, and helpful in engaging learners' into the target skill; however, 1(20%) participant (P2) was cautious about accepting this kind of techniques, and 1(20%) participant (P1) was completely against using smartphone applications in teaching speaking skills.
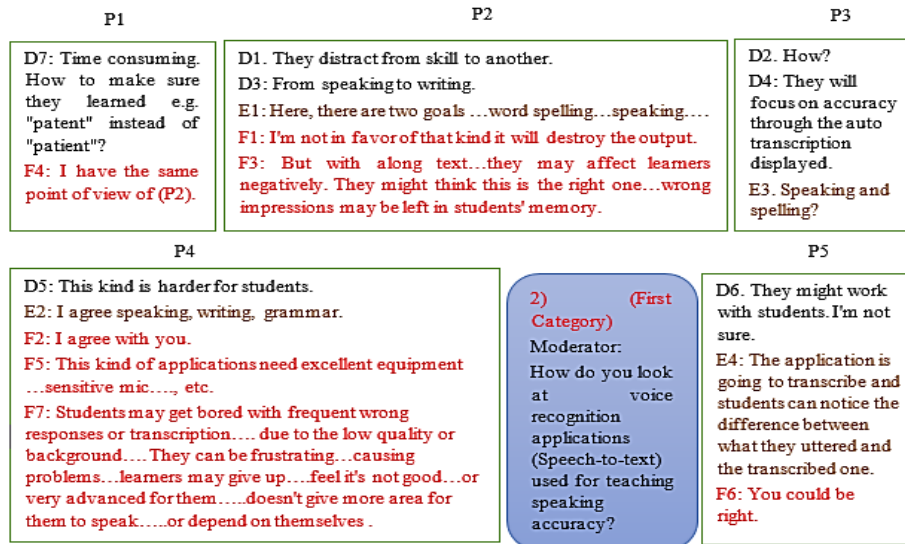
P1

D7: Time consuming. How to make sure they learned e.g. "patent" instead of "patient"?
F4: I have the same point of view of (P2).

P2

D1. They distract from skill to another.
D3: From speaking to writing.
E1: Here, there are two goals …word spelling…speaking….
F1: I'm not in favor of that kind it will destroy the output.
F3: But with along text…they may affect learners negatively. They might think this is the right one…wrong impressions may be left in students' memory.

P3

D2. How?
D4: They will focus on accuracy through the auto transcription displayed.
E3. Speaking and spelling?

P4

D5: This kind is harder for students.
E2: I agree speaking, writing, grammar.
F2: I agree with you.
F5: This kind of applications need excellent equipment …sensitive mic…., etc.
F7: Students may get bored with frequent wrong responses or transcription…. due to the low quality or background….They can be frustrating…causing problems…learners may give up….feel it's not good…or very advanced for them…..doesn't give more area for them to speak…..or depend on themselves .

2) (First Category)
Moderator:
How do you look at voice recognition applications (Speech-to-text) used for teaching speaking accuracy?

P5

D6. They might work with students. I'm not sure.
E4: The application is going to transcribe and students can notice the difference between what they uttered and the transcribed one.
F6: You could be right.

Fig. 2. First Category

Figure 2 shows that the group members (n=5) tended to oppose using speech-to-text applications in teaching speaking accuracy, but to varying degrees. Two (40%) participants (P1, and P2) straightly refused the proposed technique seeing it as time consuming, misleading and distracting. One (20%) participant (P3) was hesitating, but did not spell his opinion as if he was not sure about the effectiveness of voice-recognition applications in teaching accurate speaking, whilst 1(20%) participant (P4) warned the group against such applications due to the ineffectiveness of the equipment or the influence of external factors. Nonetheless, 1(20%) first was slightly agreeing to using such applications, but later became convinced by the other members' point of view.
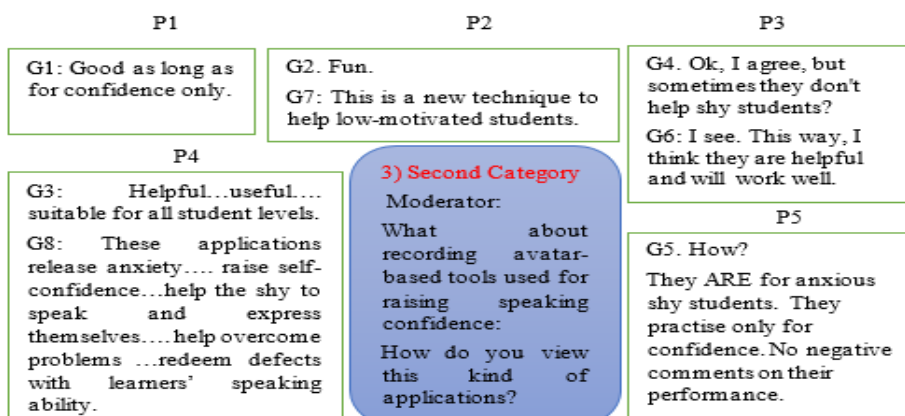
P1

G1: Good as long as for confidence only.

P2

G2. Fun.
G7: This is a new technique to help low-motivated students.

P3

G4. Ok, I agree, but sometimes they don't help shy students?
G6: I see. This way, I think they are helpful and will work well.

P4

G3: Helpful…useful…. suitable for all student levels.
G8: These applications release anxiety…. raise self-confidence…help the shy to speak and express themselves….help overcome problems …redeem defects with learners' speaking ability.

3) Second Category
Moderator:
What about recording avatar-based tools used for raising speaking confidence:
How do you view this kind of applications?

P5

G5. How?
They ARE for anxious shy students. They practise only for confidence. No negative comments on their performance.

Fig. 3. Secondary Category

With regard with the data (n=5) presented in Figure 3 concerning cartoon-based applications, it was significantly stated that the whole group participants 6(100%) highly supported the use of such software in fostering students' speaking confidence. They described these applications as helpful, effective in releasing anxiety, and help shy learners to express themselves in an anxious-free environment.
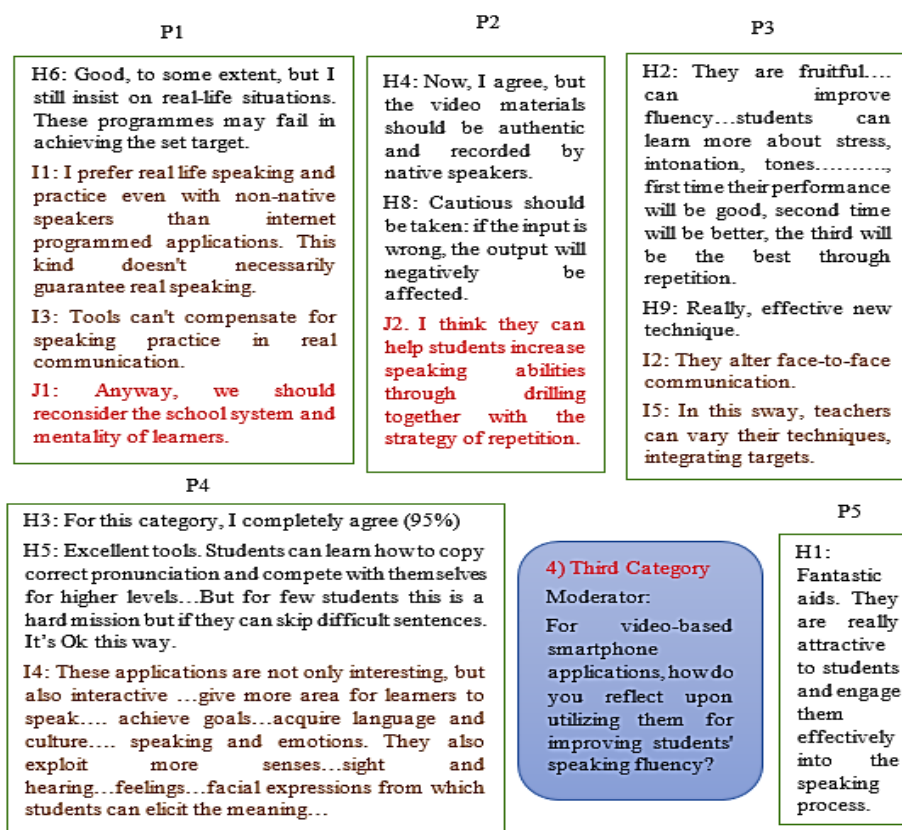
P1

H6: Good, to some extent, but I still insist on real-life situations. These programmes may fail in achieving the set target.

I1: I prefer real life speaking and practice even with non-native speakers than internet programmed applications. This kind doesn't necessarily guarantee real speaking.

I3: Tools can't compensate for speaking practice in real communication.

J1: Anyway, we should reconsider the school system and mentality of learners.

P2

H4: Now, I agree, but the video materials should be authentic and recorded by native speakers.

H8: Cautious should be taken: if the input is wrong, the output will be negatively affected.

J2. I think they can help students increase speaking abilities through drilling together with the strategy of repetition.

P3

H2: They are fruitful…. can improve fluency…students can learn more about stress, intonation, tones………., first time their performance will be good, second time will be better, the third will be the best through repetition.

H9: Really, effective new technique.

I2: They alter face-to-face communication.

I5: In this sway, teachers can vary their techniques, integrating targets.

P4

H3: For this category, I completely agree (95%)

H5: Excellent tools. Students can learn how to copy correct pronunciation and compete with themselves for higher levels…But for few students this is a hard mission but if they can skip difficult sentences. It's Ok this way.

I4: These applications are not only interesting, but also interactive …give more area for learners to speak…. achieve goals…acquire language and culture…. speaking and emotions. They also exploit more senses…sight and hearing…feelings…facial expressions from which students can elicit the meaning…

4) Third Category
Moderator:

For video-based smartphone applications, how do you reflect upon utilizing them for improving students' speaking fluency?

P5

H1: Fantastic aids. They are really attractive to students and engage them effectively into the speaking process.

Fig. 4. Third Category

On the other hand, for the third category of video-based applications used for promoting fluency, Figure 4 presents the qualitative data (n=5) obtained from the focus group discussion, it was found that 3 (80%) participants (P2, P3, P4, and P5) positively perceived using such software in enhancing students' speaking fluency. They labelled them as authentic, fruitful, effective, excellent, and fantastic in promoting speaking fluency. However, 1(20%) participant (P1) preferred real face-to-face communication to using such tools despite seeing them as good to some extent.
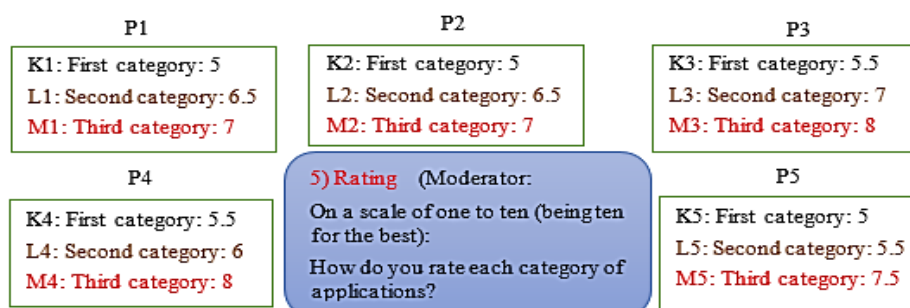
Fig. 5. Rating Smartphone Applications

The five participants in the focus group discussion rated the three categories of smartphone applications used as techniques to improve students' speaking accuracy, confidence, and fluency. Based on the encoded data in Figure 5, it can be computed that the first category got an average of 5.5 out of 10, while the second category had an average of 6.3 out of 10, and the third category scored an average of 7.5 out of 10.

5 Discussion

Four questions have been raised for this study to answer: "What are EFL teachers' perceptions of using smartphone applications to enhance adult learners' speaking performance?", "To what extent do EFL teachers implement smartphone applications in teaching speaking skills?", "What is the correlation between EFL teachers' perceptions and their actual classroom practices in terms of smartphone applications?", and "What are the factors affecting teachers' use of smartphone applications in teaching speaking?". Based on the data obtained from the questionnaire aided by the data from the focus group discussion, these questions could be answered. Findings revealed that EFL teachers, participating in the questionnaire, had positive perceptions of applying the technique of using smartphone applications in teaching speaking skills in terms of confidence, accuracy, and fluency. However, their perceptions of using such applications in terms of speaking fluency and confidence, respectively, were higher than theirs in terms of speaking accuracy. Similar findings were found in the second domain of actual classroom practices revealing that the use of smartphone applications for confidence and fluency, respectively, were more effective than applications for accuracy.

Interestingly, speaking accuracy in each domain came last, which reveals something to be more examined in further research. This was also supported by the data from the focus group discussion. Among obstacles encountered by EFL teachers and hindering their practical implementation of smartphone applications in teaching speaking, based on the data provided from the questionnaire responses, were the complexity of speaking skills in EFL context, shortage of practice, lack of training, arbi-

trary planning, and the demotivating environment that dwells on the inflexibility of curriculum and course schemes.

The present study findings were at par with the results of [49], who carried out a mixed method study to investigate teachers' attitudes towards computer pronunciation software employed in teaching English pronunciation. Further, the findings were consistent with [42] in terms of the mismatch between perceptions and practices.

6   Conclusion

Many experts predict that in the very upcoming future every student in the United States and most students in a lot of other countries will be using an array of mobile devices in their formal and informal educational experiences [29, p. 30]. In 2018, it is almost further than halfway in doing so. The mobility of devices and availability of an array of applications and the Internet in most parts of the world these days make utilizing smartphone in language classrooms useful tools for boosting EFL adult learners' speaking skills in terms of confidence, accuracy, and fluency.

This study was conducted with the aim to investigate teachers' perceptions and practices of employing smartphone applications in teaching speaking skills to Arab tertiary students. In conclusion, EFL teachers in higher education institutions, based on the data gleaned, are aware of how crucial speaking is for learners and the effective role smartphone applications can play in enhancing tertiary students' oral skills. Teachers are concluded to have high inspiring perceptions of utilizing smartphone applications for promoting Saudi tertiary students' speaking skills. Nevertheless, their actual practices were inferior to these perceptions. Classroom practices reveal weaknesses in terms of using smartphone applications in language classrooms. However, teachers' practices were deemed to be motivated positively by their perceptions.

Nevertheless, teachers are struggling with various factors that weaken this kind of classroom practices. Consequently, the study recommends stakeholders to design speaking lessons with the aid of smartphone applications, allow flexibility in syllabi for speaking activities, and encourage teachers to apply such applications effectively. It is also recommended to provide intensive orientation and training for both teachers and learners on using smartphone applications for boosting university students' oral performance. With regard to implications, this study contributes to investigating the scope of using smartphone applications as a teaching technique in EFL classrooms, giving an integrated picture of perceptions and actual practices in tertiary education context. For future research, experimental studies are highly recommended.

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