The Faceless Learners, the Perplexed Instructors, and the Dilemma of Webcams:
A Survey of Instructors at Two Bahraini Universities

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Abstract
After more than two years of teaching remotely in an emergency mode due to the Covid-19 pandemic (between March 2020 and October 2022), the interaction between university students and instructors in Bahrain has shifted tremendously due to the lack of social, visual, and physical presence associated with the more traditional face-to-face teaching practice. This paper offers therefore a case study of two local universities in Bahrain. Its aim is to explore the new situation of teaching and learning online in order to assess its impact on instructors. The researchers involved have conducted an anonymous online survey among 28 instructors through the use of Microsoft Forms. In addition, both qualitative and quantitative research methods were adopted, the objective being to provide an understanding of the many challenges that instructors have encountered while teaching learners whom they could not see. More specifically, a number of issues have been addressed by the study, among them the following: a) Instructors' views and perspectives on webcam use in the conduct of synchronous virtual classes; b) Learners' lack of visual presence, its impact on the teaching experience itself and the broader teaching practice; c) An assessment of the hurdles to effective communication during synchronous virtual classes as already identified by the case study and ways of resolving them; and d) recommendations for future action.

Keywords: Online Communication, Online Presence, Synchronous Virtual Classes, Visual Interaction, Webcams

Introduction

With the Covid-19 pandemic almost coming to an end, and the fact that education will probably never go back to how it used to be pre-pandemic (Goh & Sandars, 2020; Kaur & Bhatt, 2020; Luthra & Mackenzie, 2020; Tartavulea et al., 2020; Winthrop, 2020), this research is an attempt to dive deeper into instructors' overall perception and concerns about webcam use during synchronous virtual classes.

Globally, the pandemic has reshaped education and forced universities to implement emergency remote teaching (ERT) in record time (Hodges et al., 2020; Rice 2020; Trust & Whalen, 2020). Universities in Bahrain, like other universities worldwide, had to adapt their traditional face-to-face courses to suit online delivery less than three weeks after the first case of Covid-19 was reported in February 2020 (Alandijany et al., 2020; Bensaid & Brahimi, 2021; Taufiq-Hail et al., 2021). To proceed with remote teaching, instructors were given a crash course on how to create live online sessions (i.e., synchronous virtual classes) and share teaching material with their students using the educational platforms available. "There was an embedded assumption that if both instructors and students had access to the nominated digital platform, a reliable internet connection, and a suitable home environment, things would go smoothly" (Al Mahadin & Hallak, 2021). For most instructors, however, the culture of teaching remotely was unfamiliar territory and entailed a whole new set of challenges (Hodges et al., 2020; Rapanta et al., 2020). One of the biggest challenges was that instructors found themselves engaged in a monologue rather than a dialogue. This new virtual experience kept students and instructors apart mainly because of the lack of proper engagement, communication and social presence usually found in traditional face-to-face classroom settings. The students' reluctance to turn on their webcams further aggravated the problem; thus, a world of faceless learners and invisible teachers was created (Kaur & Bhatt, 2020). Instructors would "log on to see black screens instead of boisterous smiles: usernames instead of learners" (Colucci, 2020) or just "a bunch of unanimated squares" (Fagell, 2020).

Numerous studies have been conducted on how the sudden transition to online teaching has affected interaction and communication between students and instructors, especially during the COVID-19 pandemic. The studies have addressed key issues such as student and instructor self-presentation (Hosszu et al., 2022; Neuwirth et al., 2020); the dilemma and efficacy of webcam use (Castelli & Sarvary, 2020); socio-economic factors that could interfere with online communication such as connectivity and privacy issues (Neuwirth et al., 2020); students' tendency to multitask by engaging in multiple activities during online classes (Lepp et al., 2019); and the rules of netiquette during the pandemic (Mali & Lim, 2021).

Any form of communication has its dynamics. In both face-to-face and synchronous virtual classes, instructors as message communicators try to increase their impact to ensure students as receivers not only understand but also engage with the message conveyed. Being actively engaged is a very important aspect of the teaching learning environment.

An analogy can be created between Shannon and Weaver's (1949) linear communication model and synchronous virtual classes. During synchronous virtual classes, teachers "encode" a message by sharing remotely with students a verbal or textual material. This message is sent through the "channel" or the technology that is involved, i.e., the educational platforms. Then the students as receivers "decode" the message by listening to it or seeing it appear on their computer screens. At that point in the process, communication has occurred.

However, the sudden shift to online delivery that happened in the wake of the pandemic has imposed some limitations to this model of communication. This issue may be attributed to factors that have probably nothing to do with the sender, message, channel or receiver, yet could have interfered with the process of message decoding. The nature of synchronous virtual classes allows students to be exposed to more distractions than in a face-to-face classroom environment (i.e., context-dependent conditioning) (Lynch et al., 2006). The many distractions, the sudden change in the learning environment for which neither the students nor the instructors were ready, and the absence of physical, visual, and social presence has exacerbated the problems of decoding. This left instructors as message senders wondering if students paid any attention to the lesson, understood the material presented and whether they needed more help and clarification. This process was experienced as a rather stressful one by instructors and made class delivery more demanding. (Müller et al., 2021).

Whereas Face-to-face traditional classes, seem to adopt a non-linear Transactional Model (Kobiruzzaman, 2022) where instructors and students are both senders and receivers. They are sending messages to each other both ways. When students do not respond, remain silent or deliberately do not communicate with their teachers whether verbally or non-verbally, that still constitutes a response. This silent type of response could help instructors determine whether the message is decoded appropriately. Physical, visual, and social presence are immediately available since the students and instructors share one familiar environment. There are no tangible barriers. Instructors also have the ability to multitask. In other words, they can explain the material in detail, quiz students, while being able to recognize from the non-verbal cues given by students whether they are assimilating any parts of the lesson. Eye contact, facial expressions and body language are among the non-verbal cues that act as the silent response within traditional classroom settings.

The sudden shift to emergency remote teaching has deprived instructors of all of this and created many barriers between them and their students. When the focus is mainly on the material shared online, "it is obviously not possible to have a classroom experience" as effective as the one allowed by traditional face-to-face teaching (de Vries, 2021). Physical, visual, and social presence have been replaced by virtual presence. A related issue that contributed to increasing existing challenges is that neither the students nor the instructors, in their majority, were ready or willing to be on camera during synchronous virtual classes.

The purpose of this study is to look into the issue of visual interaction in online classes within the Bahraini context, and the impact of its absence on the overall teaching environment. Researchers examined how instructors perceive the use of webcams during synchronous virtual classes; the role it possibly plays, if any, in assessing and monitoring student engagement; the limitations it may have; and the teaching methods instructors may have adopted to compensate for students' unwillingness to turn on their webcams.

Methodology

This research was initiated to address and better understand how the absence of visual presence during virtual synchronous classes could affect instructors at two major Bahraini universities. In this study, a mixed methodology comprising primary and secondary research tools was used to analyze in-depth the challenges instructors encountered when students did not turn on their webcams.

The secondary research tool is a review of the literature on the dynamics of communication between students and instructors in online classes, especially post-pandemic. Numerous previous studies on webcams and virtual online delivery are reviewed to shed some light on any previous research outcomes that are central to the topic investigated in this paper.

The primary research tool is an inductive empirical survey-based method (Pyrczak, 2014; Tan, 2017), suitable for generalizations from a specific observation (Collins, 2010; Read et al., 2016). The survey questionnaire contains both qualitative and quantitative questions. Creswell (2009) says that a mixed research method allows researchers to collect and analyze data by incorporating both quantitative and qualitative methods. Utilizing both techniques support the research investigation. In addition, it highlights possible discrepancies between participants' qualitative and quantitative answers by allowing them to voice their opinions and share their experiences using their own words. By merging results, utilizing a mixed method approach can provide better analysis and conclusions.

Data relevant to the research objectives is collected and set into categories. Statistical analysis is conducted to investigate and discover patterns and correlations and examine instructors' perspectives.

To get the best feedback, the instructors were asked a variety of questions. In addition to a gender survey question (male/female) in Section (1), the survey is divided into five more sections. Section (2) includes three closed-ended questions on whether instructors have ever turned their webcams on during virtual synchronous classes, whether they prefer to teach with or without webcams, and whether they had any experience with online teaching pre-pandemic. They were expected to answer with Yes/No/or Sometimes for the first question and Yes/No for the second and third questions. Section (3) includes one question where multiple answers could be selected (up to 12) about reasons for instructors not turning on their webcams; Section (4) includes a total of 14 closed-ended questions with a scale of five options ranging from "strongly agree" to "strongly disagree"; Section (5) includes one question where multiple answers could be selected (up to 8) about what kind of information they would be able to obtain when students turned on their webcams during synchronous virtual classes, including the option of "Other" to provide additional reasons that were not listed; and Section (6) includes two optional open-ended questions with no predetermined options to select from, and where survey participants can respond by using their own words. In this section, the participants were asked to list the types of methods they used to keep their students engaged, and if they wanted to provide additional comments, respectively.

Research Sample

For this study, an anonymous online survey was distributed using Microsoft Forms to collect data from instructors on webcam use during synchronous virtual classes and its impact on both instructors and student performance. A total of 28 faculty members from two local universities in Bahrain took the survey.

The design of the survey questions aimed at investigating instructors' attitudes towards webcam use, and the implications visual presence or absence may have on the teaching process and student performance. All survey questions, except the first one, address matters related to webcam use during online classes.

The present research is not about gender differences. However, whenever gender differences were observed in participants' answers, these were highlighted throughout the paper.

Results

As mentioned above, the survey consists of six sections. The results of Sections 1, 2, and 3 are shown in Table 1, the results of Section 4 are shown in Table 2, the results of Section 5 are shown in Table 3, the results of the first part of Section 6 are shown in Table 4. As for the second part of Section 6, the results were analysed according to the instructors' comments.

Section 1

A total of 28 university instructors took the survey, divided into 18 females and 10 males, 64% and 36%, respectively (see Table 1).

Section 2

When instructors were asked if they turned on their webcams during synchronous virtual classes, 32% chose Yes, 46.5% chose No, and 21.5% chose Sometimes. In terms of gender, 78% of total female participants and 22% of total male participants always turned on their webcams. As for whether they preferred to teach with their webcams turned on, 32% of total participants chose Yes of which 78% were females and 22% were males. When asked whether they had ever tried online teaching prior to the pandemic, all participants chose No (see Table 1).

Section 3

In this section (see Table 1), the instructors were asked to identify reasons for not turning on their webcams. They were given 12 reasons to choose from including "Not Applicable – I always have my camera on." The most frequently selected reason was that students did not usually turn on their webcams (N=19, 68%), divided into 12 females (63%) and 7 males (37%). The second most selected reason was feeling self-conscious (N=12, 43%) divided into 7 females (58%) and 5 males (42%). The third most selected reason was fear of an unauthorized use of a screenshot their image (N=10, 35%), divided into 7 females (70%) and 3 males (30%). The fourth most selected reason was "Not applicable – I always have my camera on." 8 instructors or 28.5% selected this option, of which 6 were females (75%) and 2 were males (25%). The fifth and sixth most selected reasons were not being dressed appropriately to be on camera and being seen doing something else on their computers (N=6, 21.5%). The first option was chosen by 5 females (83.5%) and 1 male (16.5%), and the second option was equally chosen by 3 males and 3 females (50% each). The seventh and eighth most selected reasons were having poor Internet connection at home, or not having sufficient Internet data and being seen eating or drinking (N=5, 18%). 4 males (80%) and 1 female (20%) selected the first option and 3 females (60%) and 2 males (40%) selected the second option. The nineth and tenth most selected reasons were not having privacy in their home environment and fear of being noticed by everyone (N= 3, 11%). 2 males (67%) and 1 female (33%) selected the first option and 3 females (100%) and zero males selected the second option. The two least selected reasons were being seen walking away from their computers and not having a webcam. Both were selected by one male only (3.5%).

Section 1			
Gender	All	Male	Female
	28	36%	64%

Section 2			
Do you turn your webcam on during synchronous virtual classes?	%	%	%
	All	Male	Female
Yes	32	22	78
No	46.5	46	54
Sometimes	21.5	33.5	66.5
I prefer to teach with my webcam	%	%	%
	All	Male	Female
Turned on	43	33.5	66.5
Turned off	57	37.5	62.5
Have you ever tried online teaching prior to the pandemic?	%	%	%
Yes	0	0	0
No	28	36	64

Section 3			
Reasons that could prevent you from turning on your webcam (you may choose more than one):	%	%	%
	All	Male	Female
• I am not dressed appropriately to be on camera	21.5	16.5	83.5
• I do not have privacy in my home environment	11	67	33
• I have poor internet connection at home, or I do not have sufficient internet data	18	80	20
• Students do not usually turn on their webcams	46.5	37	63
• I do not want to be noticed by everyone	11	0	100
• I do not want to be seen walking away from my computer	3.5	100	0
• I do not want to be seen doing something else on my computer	21.5	50	50
• I do not want to be seen eating or drinking	18	40	60
• I do not have a webcam, or it is broken	3.5	100	0
• I feel self-conscious turning on my webcam	43	42	58
• I am concerned of an unauthorized use of a screenshot of my image	36	30	70
• Not applicable - I always have my camera on	28.5	25	75

Table 1. Survey Results of Sections 1 to 3.

Section 4

In this section, we used Likert-type rating scales to measure instructors' views on webcam use. The survey included a total of 14 closed-ended questions with a scale ranging from "strongly agree" to "strongly disagree" (see Table 2). The results were as follows:

1. "I feel a sense of community is created when both instructors and students turn on their webcams": 43% strongly agreed; 32% agreed; 14% were undecided; and 11% disagreed.
2. "I feel a sense of community is created among students when they turn on their webcams: 50% strongly agreed; 28.5% agreed; 14.5% disagreed; and 7% were undecided.
3. "I feel I could monitor students' engagement better when they turn their webcams on": 53.5% strongly agreed; 21.5% were undecided; 18% agreed; and 7% disagreed.
4. "When students turn on their webcams, it positively affects their performance": 36% were undecided; 32% strongly agreed; 25% agreed; and 7% disagreed.
5. "When students turn on their webcams, it improves their learning experience": 43% strongly agreed; 25% were undecided; 18% disagreed; and 14% agreed.
6. "When students turn on their webcams, it makes the teaching process easier and less stressful": 28.5% strongly agreed; agreed and undecided had the same percentage of 25%; 18% disagreed; and 3.5% strongly disagreed.
7. "I feel isolated because students keep their webcams turned off": 39.5% strongly agreed; 28.5% agreed; 18% were undecided; and 7% either disagreed or strongly disagreed.
8. "Absence of non-verbal cues makes online teaching more demanding": 46.5% agreed; 28.5% strongly agreed; 18% were undecided; and 7% disagreed.
9. "Absence of non-verbal cues makes it difficult to determine if the students understand the material discussed": 43% strongly agreed; 32% agreed; 21.5% were undecided; and 3.5% disagreed.
10. "I think the university should make turning on webcams obligatory": 32% strongly agreed; 21.5% agreed; undecided or disagreed had the same percentage of 14.25%; and 18% strongly disagreed.
11. "When students do not turn on their webcams, it negatively affects their performance": 28.5% agreed; undecided or disagreed had the same percentage of 25%; 14.5% strongly agreed; and 7% strongly disagreed.
12. "Some subjects require that both instructors and students turn their webcams on more than other subjects": 60.5% agreed; strongly agreed and disagreed had the same percentage of 14.25%; and 11% were undecided.
13. "Making turning the webcams on compulsory could discourage some students from attending virtual classes": 43% disagreed; 21.5% were undecided; 18% agreed; 14% strongly agreed; and 3.5% strongly disagreed.
14. "To ensure students are present and engaged when they do not turn on their webcams, I use various teaching methods": 68% agreed; 28.5% strongly agreed; 3.5% disagreed.

Section 4		Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1. I feel a sense of community is created when both instructors and students turn on their webcams.	%	43	32	14	11	0
2. I feel a sense of community is created among the students when they turn on their webcams.	%	50	28.5	14.5	7	0
3. I feel I could monitor students' engagement better when they turn on their webcams.	%	53.5	18	21.5	7	0
4. When students turn on their webcams, it positively affects their performance.	%	32	25	36	7	0
5. When students turn on their webcams, it improves their learning experience.	%	43	14	25	18	0
6. When students turn on their webcams, it makes the teaching process easier and less stressful.	%	28.5	25	25	18	3.5
7. I feel isolated because students keep their webcams turned off.	%	39.5	28.5	18	7	7
8. Absence of non-verbal cues makes online teaching more demanding.	%	28.5	46.5	18	7	0
9. Absence of non-verbal cues makes it difficult to determine if the students understand the material discussed.	%	43	32	21.5	3.5	0
10. I think the university should make turning on webcams obligatory.	%	32	21.5	14.25	14.25	18
11. When students do not turn on their webcams, it negatively affects their performance.	%	14.5	28.5	25	25	7
12. Some subjects require that both instructors and students turn their webcams on more than other subjects.	%	14.25	60.5	11	14.25	0
13. Making turning the webcams on compulsory could discourage some students' from attending virtual classes?	%	14	18	21.5	43	3.5
14. To ensure students are present and engaged when they do not turn on their webcams, I use various teaching methods.	%	28.5	68	0	3.5	0

Table 2. Instructor Survey Results of Section 4

Section 5

In this section, the instructors were asked what they would be able to know when students turned on their webcams. Multiple answers could be selected from a list of 8 possible options including "Other" where instructors could provide an answer that was not listed (see Table 3). The most frequently selected answer was that the instructors would know that the students were present and attentive (N=24, 86%). The second most frequently selected answer was that they would not feel as if were talking to themselves (N=22, 78.5%). The third most selected answer was that they would know that the students were not doing something else (N=19, 68%). The fourth most selected answer was that they would be able to see when students had this confused look of not understanding the shared material (N=17, 61%); The fifth most selected two answers were they would be able to know that the students understood the material discussed and that they were not bored (N=15, 53.5%). The least selected answer was "Not applicable – I don't feel it affects the teaching process at all" (N=2, 7%). Three instructors (11%) selected the "Other" option to elaborate, commenting:

> *Despite the fact that the cam shows them physically present, I cannot gauge their understanding of the taught material, especially in large classes.*

> *Some of my students complained that they couldn't concentrate when the camera was on.*

> *Nothing because on camera all you can see is someone's face but not their entire physical presence.*

Section 5		
When students turn on their webcams, I will be able to know that (You may choose more than one):		
• They are present and attentive.	%	86
• They understand the material discussed.	%	53.5
• They are not doing something else.	%	68
• They are not bored.	%	53.5
• They have this confused look of not understanding the shared material.	%	61
• I am not talking to myself.	%	78.5
• Not Applicable – I do not feel it affects the teaching and learning process at all.	%	7
• Other.	%	11

Table 3. Instructor Survey Results of Section 5

Section 6

The survey included two optional open-ended questions with no predetermined options to select from, to which survey participants could respond by using their own words. The first question was "List the types of methods you use to keep your students engaged" (optional). 78.5% of survey respondents (22 of the 28 surveyed) provided answers to this question. Based on the instructors' comments, this section is divided into the following four categories (see Table 4):

1. Participation: 100% said they randomly selected students to answer questions using the available audio feature, 32% used breakout rooms, and 23% used the chat box.
2. Attendance: 18% kept regular track of attendance.
3. Online Assessment: An equal percentage of respondents (13.5%) used discussion boards, asked students to do an oral presentation, or/and gave students online exercises. 9% also administered online quizzes.
4. Activities: 13.5% asked students to play online games and 4.5% shared videos with their students.

Section (6)		
1. Participation:		
a. Randomly selecting students to answer questions using the audio feature	%	100
b. Breakout rooms	%	32
c. Using the chatbox	%	23
2. Attendance record keeping	%	18
3. Online assessment:		
a. Discussion boards	%	13.5
b. Exercises	%	13.5
c. Presentations (feedback and comments)	%	13.5
d. Quizzes	%	9
4. Activities:		
a. Playing games	%	13.5
b. Sharing videos with students	%	4.5

Table 4. Instructor Survey Results of Section 6

The second optional open-ended question was "If you have any additional comments, please feel free to share them with us (optional)." 10 instructors out of 28 provided answers for this question; 36% of total participants. The following is a summary of the instructors' comments:

1. 40% said that students were easily distracted in online classes when they kept their webcams off.
2. 30% said that turning on their webcams made them, and their students feel exposed.
3. 20% said that turning on webcams must be obligatory when doing exams to minimize cheating.
4. 10% said they felt isolated when students did not turn on their webcams.
5. 10% said that turning on webcams should depend on the nature of the online course and the number of students enrolled.
6. 10% said that the university should make turning on webcams obligatory for both students and instructors.
7. 10% said that the interface of the educational platforms used was not supportive of too many webcams to be viewed on one page, and that the Internet connection might become poor.

Findings

The survey highlighted a number of significant points, including:

1.   *A general reluctance among instructors to use webcams during virtual synchronous classes*. Only 32% of total participants always turned on their webcams and 68% preferred to teach with their webcams turned off (see Table 1). Many reasons contribute to this reluctance, among them the fact that most students do not turn on their webcams (68%); the self-consciousness felt by many instructors (43%); and instructors' own concerns about issues of privacy concerning the unauthorized use of a screenshot of their images (36%) (see Table 1). One instructor commented:

> *I am always worried students might take a screenshot of my picture and post it online. I feel too exposed when I turn the camera on.*

> *Self-consciousness about the physical visibility and exposure allowed by camera use was felt more by female instructors than their male counterparts*. In section 3, which gives instructors a list of options on why they did not turn on their webcams, more females than males chose the options of not being dressed appropriately to be on camera (83% to 16%), fear of being noticed by everyone (100% to 0%) and being concerned of the unauthorized use of a screenshot of their images (70% to 30%) (see Table 1).

2.   *Instructors' paradoxical stand towards webcams recognizing their value in judging learners' interaction, attentiveness and level of understanding while being reluctant in making use of them.* Most instructors agreed that they could monitor students' engagement better when they had their webcams on (71%). The majority also agreed (75%) that the absence of non-verbal cues made teaching more demanding, and it was difficult to determine if students understood the material discussed (see Table 2). 57% of survey respondents agreed that turning on webcams improved the students' learning experience; the same percentage also agreed that it positively affected student performance, and 43% agreed that not turning webcams on can negatively affect student performance (see Table 2). It should be emphasized that the survey participants were asked the same question twice using different words, yet the same point was reiterated, that is, webcams contribute to students' learning experience (see Questions 4 & 11 in Table 2). Of the options instructors selected in Section 5 above, the four most selected answers also emphasize the role webcams play in determining whether the students are present and attentive (86%), instructors are not just talking to themselves (78.5%), students are not doing something else (68%) or having a confused look of not understanding (61%) (see Table 3). In the "any additional comments" optional open-ended question at the end of the survey, 40% of instructors who answered this question said that students were easily distracted in online classes when they kept their webcams off.

3.   *Instructors' general feelings of detachment and isolation in the absence of visual interaction and communication with learners.* Most instructors agreed that a sense of community was created among students (78.5%) and between students and instructors (75%) when webcams were turned on. Almost two-thirds of instructors felt isolated (68%) when students did not turn on their webcams (see Table 2). One instructor wrote:

"The silence accompanying online teaching can be so frustrating and isolating. In face-to-face classes, just the students' presence makes the experience more enjoyable and less lonely."

4.   *Instructors had to find ways to compensate for the absence of visual, physical and interactive presence associated with traditional face-to-face teaching.* 95.5% agreed that they had to introduce new teaching methods and employ certain tools to ensure students were present, attentive and understood the material discussed (see Tables 2 & 4).

The above findings seem to reveal that there is a degree of confusion within instructors' attitudes towards the issue of webcam use. Interestingly, their attitudes have thus revealed that their underlying concern is not so much webcam use itself, but rather their ability to manage the new virtual learning environment. This fear is motivated by two major considerations:

1) *The new learning environment has led to what could be termed as distracted learning.* Students tend to be easily distracted by numerous online and offline activities while attending their virtual classes. They could be talking to their family members, surfing the net, watching television, or even eating. With the sudden transition to online delivery, students found themselves, in the comfort of their homes, rushed into a culture of virtual learning that was completely foreign to them. "Many educators are grieving the loss of their known and familiar educational environments, both personally and professionally. With this grieving may come a sense of loss of control, which can cause educators to seek ways to control as much as possible" (Steeves, 2021). Instructors' feelings maybe summed up in the words of the following instructors:

   Most of the time I feel like I am talking to myself, wondering if the students are paying attention at all. Staring at small black screens can be so frustrating. Sometimes I am even surprised at how loud my voice is, as if raising my voice would make them concentrate more on the material I am explaining.

   Sometimes I feel like a radio! Students keep me in the background playing and do something else.

2) *Distracted learning has thus emerged as the biggest challenge for instructors.* Learners' attitudes, the need for them to be self-disciplined and focused have not been properly addressed during the early stages of the pandemic. The stress was rather on the need to ensure education continues uninterrupted. Therefore, students and instructors were not trained to use webcams.

Conclusion

The teaching process can still be effective even in cases when neither students nor instructors turn on their webcams. The non-physical presence of participants and their verbal cues has led instructors to depend less on webcams and to focus more on the use of various teaching methods as part of their synchronous virtual classes. This process slowly and gradually developed through trial and error.

As it turns out, audio participation seems to have a more significant impact on synchronous virtual classes than webcam use alone (See Section 6 above). Although different educational

platforms make use of various display settings, the material displayed by the instructor would dominate the screen space. As a result, the size of the student photo thumbnail is automatically reduced and does not allow the instructor to monitor students' non-verbal cues or actions. And the larger the class, the smaller the images. As instructors get to share course material with learners on screen, they focus on class delivery while scrolling up and down. In this case, it is not easy to keep check of the chatbox or students' faces for non-verbal cues. Students who feel the need to address their instructor would be able to do so using their mics.

Recommendations

The research findings and conclusions regarding webcam use have revealed that instructors' perception of webcam efficacy in online classes are deeply rooted in their attempt to ensure they have better management and more control over the virtual environment, particularly when it comes to the fact that students can be easily distracted. The idea of faceless learners hiding behind their computer screens, being present virtually but not mentally, as well as instructors' assumptions regarding students lack of of commitment and seriousness have somehow led instructors to come up with ways to ensure that the students are learning.

Despite proving its resilience during the pandemic, higher education in Bahrain, as elsewhere, now stands at a crossroads (Schwenck & Pryor, 2021). If universities decide to continue incorporating online teaching into their curricula post-pandemic or opt for some form of hybrid teaching, matters related to students' readiness should be properly addressed. The following steps could help achieve that:

1. Integrating effective online communication into preparatory training sessions to increase students' attentiveness, commitment, and respect for the online learning environment by addressing key issues such as online etiquette and the profile of a good learner. "Clearly, students need assistance and guidance to apprise them of the ways in which they are depriving themselves of the quality of their education. It is incumbent on us, as faculty, to design strategies that will help them to navigate these difficulties in order to optimise their distance learning given the evolving COVID-19 situation." (Neuwirth et al., 2020).

2. Offering specialized training sessions for online teachers on topics such as using the proper tone of voice, an engaging style of delivery, and the right microphones and cameras.

3. Protecting both students and instructors from online privacy violations by establishing clear rules and regulations. Feeling safe and secure online would make it easier to utilize online courses to their fullest potential and would also help overcome self-consciousness.

References

Alandijany, T., Faizo, A., & Azhar, E. (2020). Coronavirus disease of 2019 (COVID-19) in the Gulf Cooperation Council (GCC) countries: Current status and management practices. *Journal of Infection and Public Health*, *13*(6), 839-842. https://doi.org/10.1016/j.jiph.2020.05.020

Al Mahadin, L., & Hallak, L., (2021). The lack of visual interaction in online classes and its effect on the learning experience of students during the COVID-19 pandemic: A survey of a Bahraini private university students. *Proceedings of the AUBH E-Learning Conference 2021: Innovative Learning & Teaching - Lessons from COVID-19*. https://ssrn.com/abstract=3874420

Bensaid, B., & Brahimi, T., (2021). Coping with COVID-19: Higher education in the GCC countries. In A. Visvizi, M. D. Lytras & N. F. Aljohani (Eds.), *Research and Innovation Forum 2020: Disruptive Technologies in Times of Change.* Springer, 137-153. https://doi.org/10.1007/978-3-030-62066-0_12

Castelli, F., & Sarvary, M., (2020). Why students do not turn on their video cameras during online classes and an equitable and inclusive plan to encourage them to do so. *Academic Practice in Ecology and Evolution*. https://onlinelibrary.wiley.com/doi/full/10.1002/ece3.7123

Collins, H. (2010). *Creative research: The theory and practice of research for the creative industries.* AVA Publications.

Colucci, A., (2020). Our professors exceed their job descriptions for online learning – the least you can do is leave your webcam on. *Matrist Circle.* https://www.maristcircle.com/opinion/2020/10/27/zoom-class-webcam

Creswell, J. W. (2009). *Research design: qualitative, quantitative, and mixed methods approaches* (3rd ed.). Sage.

de Vries, T. J., (2021). The pandemic that has forced teachers to go online. Zooming in on tips for online teaching. *Frontiers in Education*, *6*(647445). https://doi.org/10.3389/feduc.2021.647445

Fagell, P., (2020). *Students who keep cameras off during remote learning annoy teacher.* https://kappanonline.org/teacher-annoyed-with-students-who-keep-their-cameras-off-fagell/

Goh, P. S., & Sandars, J. (2020). A vision of the use of technology in medical education after the COVID-19 pandemic. MedEdPublish, 26.

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A., (2020). The Difference between emergency remote teaching and online learning. *Educause Review*. https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning

Hosszu, A., Rughiniş, C., Rughiniş, R., & Rosner D., (2022). Webcams and social interaction during online classes: Identity work, presentation of self, and well-being. *Frontiers in Psychology*, *12*(761427). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8784946/

Kaur, N. & Bhatt, M., (2020). The face of education and the faceless teacher post COVID-19. *Journal of Humanities and Social Sciences Research*, *2*(S), 39-48.

Kobiruzzaman, M., (2022). Models of communication, 3 types of communication models linear, interactive & transactional. *Newsmoor- Educational*. https://newsmoor.com/3-types-of-communication-models-linear-interactive-transactional/

Lepp, A., Barkley, J., Karpinski, A. & Singh, S., (2019). College students' multitasking behavior in online versus face-to-face courses. *SAGE Journals*. https://doi.org/10.1177/2158244018824505

Luthra, P., & Mackenzie, S., (2020). 4 ways COVID-19 could change how we educate future generations. *World Economic Forum*. https://www.weforum.org/agenda/2020/03/4-ways-covid-19-education-future-generations

Lynch, R., Leo, S., & Downing, K., (2006). Context dependent learning: Its value and impact for workplace education. *Education þ Training*, *48*(1), 15–24.

Mali, D., & Lim, H., (2021). How do students perceive face-to-face/blended learning as a result of the Covid-19 pandemic? *International Journal of Management Education, 19*(3). https://doi.org/10.1016/j.ijme.2021.100552

Müller, A. M., Goh, C., Lim, L. Z. & Gao, X., (2021). Covid-19 emergency eLearning and beyond: Experiences and perspectives of university educators. *Education Sciences*, *11*(1), 19. https://doi.org/10.3390/educsci11010019

Neuwirth, L. S., Jovic, S., & Mukherji, B. R., (2020). Reimagining higher education during and post-COVID-19: Challenges and opportunities. *Journal of Adult and Continuing Education*, *27*(2), 141–156. https://doi.org/10.1177/1477971420947738

Pyrczak, F., & Bruce, R. R. (2014). *Writing empirical research reports: A basic guide for students of the social and behavioral sciences.* (8th ed.). Routledge.

Rapanta, C., Botturi, L., & Goodyear, P., (2020). Online university teaching during and after the Covid-19 crisis: Refocusing teacher presence and learning activity. *Postdigit Sci Educ, 2*, 923–945. https://doi.org/10.1007/s42438-020-00155-y

Read, C., (2016). *Logic: deductive and inductive*. CreateSpace Independent Publishing Platform.

Rice, K., (2020). Remote vs. online learning. https://kerryrice.com/2020/04/25/remote-vs-online-learning/

Schwenck, C. M., & Pryor, J. D., (2021). Student perspectives on camera usage to engage and connect in foundational education classes: It's time to turn your cameras on. *International Journal of Educational Research Open*, *2,* 100079. https://www.sciencedirect.com/science/article/pii/S2666374021000492

Shannon, C., & Weaver, W., (1949). *The mathematical theory of communication*. University of Illinois Press, USA.