Article

Report on Digital Literacy in Academic Meetings During the 2020 COVID-19 Lockdown

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Abstract: Late January 2020, COVID-19 unexpectedly imposed world-wide limitations on daily life. Deemed a pandemic mid-March 2020, lockdowns were imposed for an indefinite period, including at academic institutions. Consequently, interest in digital literacy—an on-going and increasing concern of academic institutions in the 21st century—exponentially heightened. Continuing meetings of academic groups now necessitated online communication. In the almost overnight closure of all non-essential services, academic units at one post-secondary institution expeditiously selected Zoom—a popular video conferencing application—as the preferred platform for meetings until social distancing was lifted. In contrast to this widely accepted use of Zoom for scheduled meetings, one unique health-related group at the institution, tailored to the 4Cs of 21st century learning of critical thought, communication, cooperation and creativity, found social networking through a private Facebook group a more appropriate and satisfying group experience than likely possible with the Zoom app. Pros and cons of both online platforms are presented along with when each choice is warranted. In promoting digital literacy as the primary goal in online communication for academic meetings, private Facebook groups hold promise for collaborative online academic meetings with similar features to this health-related group.

Keywords: COVID-19; lockdown; digital literacy; academic meetings; private Facebook groups; Zoom; 4Cs; health-related group; landscape of truth; narrative research

1. Introduction

Online platforms are a common feature of academic meetings; their use has been increasingly adopted as a tool supporting teaching during the early 21st century [1]. Nevertheless, the importance of employing online platforms alone for academic meetings had not been considered until the COIVD-19 crisis early 2020 [2]. What remained clear, even with the speed at which online academic meetings became the only alternative, is that the platform for these meetings should match the intention of the learning experience and it was the role of those initiating these meetings to make reasoned, informed and effective decisions regarding choice of online platforms [3].

1.1. COVID-19

COVID-19 is the ongoing global pandemic first identified in 2019 as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)[4]. The World Health Organization declared it a Public Health Emergency of International Concern on 30 January 2020 and a pandemic on 11 March [5]. As of 31 July 2020, over 17.3 million cases have been reported across 188 countries and territories, resulting in excess of 673,000 deaths. More than 10.1 million people have recovered [6].

The virus is spread primarily through close contact, most often via small droplets produced by coughing, sneezing, and talking. Spread is possible before symptoms appear, and from people who do not show symptoms [7,8,9].

Common symptoms include fever, cough, fatigue, shortness of breath, and loss of sense of smell [10,11,12]. Complications may include pneumonia and acute respiratory distress syndrome [13]. There is no vaccine or specific antiviral treatment [14].

Recommended preventive measures include hand washing, covering one's mouth when coughing, distancing from other people, wearing a face mask in public settings, disinfecting surfaces, increasing ventilation and air filtration indoors [15], and self-isolation for people who suspect they are infected [16,17]. Authorities worldwide have responded by, among other measures, implementing lockdowns [18].

In response to the universal alarm regarding the COVID-19 pandemic, one major university ended all non-essential in-person meetings 12 March 2020 creating a lockdown.

The first communication to end all non-essential meetings associated with one of the university's hospitals was sent at 12:33 p.m., 12 March [19].   It came to the facilitator of a particular non-essential health-related academic meeting as a point of information, along with the question of whether the activities of the group (among other gatherings associated with that particular academic program) could be moved offsite.   By 12:39 p.m. the same day, the question of "moving offsite" had been further refined by email to query whether Zoom could be used for the purposes of the group [20]. It was thus within these few minutes, in between the first email and the second, that the Zoom online platform was deemed to be the preferred method of continuing online activities for all academic meetings within the academic program of this university hospital.

The response of the health-related group's facilitator to this request was that the group currently made use of a private Facebook group for its off-site work and would prefer to continue with this online platform.   Although Zoom was the recommend platform, the director of the academic program considered the facilitator's continued use of this private Facebook group an acceptable response to COVID-19 [21].

The group then continued meeting through the private Facebook group until its completion at the end of the 2019/20 academic year on 29 April 2020.

In relation to this university's decision to recommend Zoom and the facilitator of the health-related group choosing instead to continue to employ a private Facebook group, the following will be examined: 1. the criteria in determining an effective use of online platforms in academic meetings, 2. the results of choosing between a private Facebook group and Zoom meeting for one health-related group, 3. a discussion comparing the features of both private Facebook groups and Zoom meetings, and 4. information on the particular health-related group and its requirements for an online platform.   The purpose of the examination will be to determine when each online platform is appropriate with regards to accepted standards for online meetings—especially those with characteristics similar to the health-related group to be discussed.

1.2. Digital Literacy and Academic Meetings

As a process of coming together, academic meetings involve sharing information where success is defined by the quality of information shared, participant satisfaction with the process, participant confidence in the outcomes and with respect to the process time [22].   Within higher education, successful academic meetings result in academic engagement which has been defined as the student devoting physical and psychological energy to the academic experience [23]. More recently,

academic engagement has been recognized as the time and effort students dedicate to educational activities empirically linked to desired academic outcomes including what institutions do to induce students to participate in these activities [24].

Based on this understanding, the number of meeting-members who speak or intervene during a session is not necessarily a defining factor of success at academic meetings. This differs from social media—internet-based applications that build on the ideological and technological foundations of Web 2.0 allowing the creation and exchange of user generated content [25]— where academic engagement depends on the students' prior experience with computers and smartphones [26] and comments and engagements from as many participants as possible are considered an integral component to the success of the information sharing, although what exactly constitutes engagements remains contentious [27].

Yet, it is by supporting social interaction that social networking sites as the platform for holding academic meetings have been found to increase meeting success [28]. They do so by facilitating learning in at least three ways: through presenting multiple perspectives, situated learning, and transfer [29]. As well, the use of this digital media in academic meetings enhances digital literacy through development of the 4Cs of 21st century learning [30].

Pioneered and championed by the Partnership for 21st Century Learning [31], the 4Cs are as follows:

1. Critical thought: Objective analysis to form a judgement. With the freedom to study many points of view available through digital media, participants in academic meetings have the opportunity to develop well-informed judgements.

2. Communication: Exchange of information. Communication has become immediate and open through digital media, creating expectations for instant information and regarding what is able to be shared at academic meetings.

3. Cooperation: Process of people working or acting together as opposed to working in competition. With expanded growth of online communities intended to share knowledge and participate in common activities there is an increasing trend to collaborate in academic meetings.

4. Creativity: Activity of originating something considered valuable. The various opportunities available through digital media are influential in developing and supporting creative outcomes as part of academic meetings.

As digital technology increasingly influences society, there is a migration to online relationships resulting in online communities, among them, those in academic settings. Interactions within the online community then aim to establish standards which can be defined with the concept known as digital literacy.

In 2019, the world's first global standard for digital literacy, skills and readiness was launched by the Coalition for Digital Intelligence. The DQ Global Standards Report 2019 established a set of global standards for digital literacy, skills and readiness, known as the DQ framework [32]. Informed by such standards, Health Education England constructed standards for digital literacy specific to health-related education, defining digital literacy as those capabilities that fit someone for living, learning, working, participating and thriving in a digital society [33].

In the estimation of HEE, these broad capabilities extend over six domains in a framework that is intended as a developmental and supportive tool for enhancing digital literacy in health-related education:

1. Digital identity, wellbeing, safety and security

2. Communication, collaboration and participation

3. Teaching, learning and self-development

4. Information, data and content

5. Creation, innovation and research

6. Technical proficiency [34].

In effect, digital literacy in health-related education incorporates all aspects of using, understanding, and effectively maneuvering digital environments to perform tasks and has developed and redefined the ability to recall mutually held information available from academic gatherings. Irrespective of the speed at which online platforms needed to be chosen as a result of the COVID-19 lockdown, the goal of any use of online platforms for health-related academic meetings is to be in keeping with these standards for health-related education in achieving the capabilities associated with digital literacy.

2. Results

Brought on by the lockdown in response to the COVID-19 pandemic, the question regarding one health-related academic meeting became: What is the best online platform to communicate, given the impossibility of physically meeting?

2.1. Choice of Online Discussion Platform

A private Facebook group was selected for conducting the online, health-related meeting tailored to its unique expectations when other academic meetings associated with the broader institutional program were using Zoom as their meeting platform. What informed this choice is the health-related group is grounded in support for democracy and equality [35] in demonstrating the 4Cs. Nevertheless, Zoom appears at first glance to be both democratic and equal. With Zoom, every participant shares the same amount of screen space and participate concurrently during the actual time the meeting would take place. Thus, it seems Zoom would be a reasonable choice for continuing this specific group's meetings if the concern is democracy and equality and may be why it was suggested by the program director for this health-related group. However, on closer examination, this apparently democratic nature and equality provided by Zoom is found lacking.

Limited by the modem connectivity of those who participate in meetings, participants in Zoom meetings with a poor connection often drop out of and reappear on the screen grid in different locations. When this occurs, it is unclear who is to speak at any time since there is no consistent order to where people are organized on the screen. As a result, participants compete to speak and may talk at the same time to be heard [36]. Although the facilitator of the health-related group can keep track of the order in which people speak, this changes the role of the facilitator to chairing a meeting rather than acting as an equal participant. As a non-competitive group, once the health-related group was moved entirely online, a method was needed so that everyone knew when people were to speak at the meeting without having to raise their hands. This had been solved at the in-person meeting by people sitting in a circle. Members would answer questions one at a time, going around the circle. Each person knew when they would be asked to speak in order. Organizing in a visually consistent manner to reduce competition to speak method is not possible with Zoom.

Maintaining democracy with the health-related group means that information related to the meeting needed to be reliable and accessible. With a Zoom meeting, there is also no permanent place on the app to store what is recorded at the meeting for all members to access.   Furthermore, there is no obvious way to store either the written replies to prompts or the drawings that participants might do—important features of the group [37]. One role of the facilitator of the group is to write down what is said at the meeting to be posted later to the private Facebook group.   With respect to drawing, because people become competitive about wanting to speak when using Zoom, relaxing is difficult.   And with this stress to make sure one is heard as well as avoiding distraction from their surroundings when using Zoom, there is little time or mental energy for drawing or doodling as well as writing [38].

The limitations of Zoom, in how it is structured, it's method of information storage, and its dependence on a clear and consistent internet signal means that Zoom was evaluated by the facilitator as a less ideal method of online communication with group members during the COVID-19 pandemic for the one unique, collaborative health-related group. An additional limitation of the free version of Zoom is that the time limit for meetings is forty minutes—something that would not fit with the two-hour health-related group meeting.   Although there is a chat feature with Zoom, this is supplementary to the video and is stored only if recorded by the account holder or someone who has been given administrative privileges.   Furthermore, this feature does not come with the free version of Zoom [39].   However, beyond the limitations of Zoom, there were positive points about the private Facebook group that made it especially fitting for the health-related group once it was classified as a non-essential service and was required to move entirely online.

2.2. Move to the Private Facebook Group

Some members of the health-related group had never attended the in-person meetings and had relied on having the facilitator send the weekly writing prompt to them by Messenger, an instant messaging app that is owned by and works in conjunction with Facebook [40].   They would then reply to the weekly prompt and send their response back to the facilitator.   Once their response was read by the facilitator at the meeting and they received questions from the other participants, the information was written down by the facilitator who posted it to the private Facebook Group.   For these participants, the change imposed by COVID-19 of only using the private Facebook group was seamless.   The group was exactly the same for these participants before and after.   The people for whom moving online made a difference were those who regularly came to the weekly two-hour meetings at the hospital.   Thus, the private Facebook group helped in maintaining connectivity for the group but the experience of the participants in the move to online differed depending on prior attendance at the in-person meetings.

For regular, in-person attendees who were now required to attend online, there were changes to the meetings. The facilitator would go online to the private Facebook group at the same time as the in-person meeting had been held pre-COVID-19, each week for two hours, and begin typing in all the responses received by Messenger to the weekly five-minute writing prompt.   The responses would be organized in the private Facebook group by the name of the person along with their response.   What differed most substantially from the in-person meeting was that, rather than questions being provided from all group members for each person, initially the only question posed would be from the facilitator because it was the facilitator who was typing in the responses to the prompt on the private Facebook group.   If other group members signed on to the private Facebook group at the same time as the facilitator they might choose to type a question concurrently or they might not.   Unlike the in-person meetings, those who did participate online were not sitting in a circle.   That means people responded as they chose.   Sometimes they responded simultaneously.   Yet, it was non-competitive because one person's response did not drown out another person's, and every response was recorded as part of the running dialog of the private Facebook group.

2.3. Reasons Behind the Choice

The salient feature is that a private Facebook group is more democratic in being both independent of video—which necessitates a high-quality, continuous internet connection available to participants—and non-competitive. Although both meeting with a private Facebook group and a Zoom meeting permit attendance at the same time, the experience with the private Facebook group for participants is a very different than that of a Zoom meeting. There is little stress associated with participating online with the private Facebook group because people respond when they want by typing without drowning out another participant with their voice. If two people do write at the same time on the private Facebook group, both written responses appear—one does not eliminate the other as happens in Zoom when participants vocalize at the same time promoting the equality of the members. And given that it wasn't particularly stressful participating in an online private Facebook meeting, members still felt able to post their drawings or doodles to the private Facebook group that they accomplished during the two hours at the end of the meeting.

Perhaps the most important reason why the private Facebook group was chosen over Zoom is that the conversations with the private Facebook group are recorded permanently in writing. This means that, unlike Zoom, what participants contribution to a private Facebook group can be well thought-out, clearly understood and available for study at a later date, permitting and encouraging critical thinking. Beyond the problem of how written comments are recorded, often with Zoom, what someone is contributing is difficult to understand them because of a poor internet connection—voices can be garbled or cut in and out. Furthermore, how the meeting is recorded using Zoom is through each person individually, rather than a running commentary created of everyone's response, as is the case with the private Facebook group. Zoom, as such, doesn't support or encourage critical thinking during the online meeting, communication is hampered and cooperation is very difficult. Given that members of the health-related group often go back over the year's work, including the drawings that are done, and reread content of the private Facebook group, being able to record the creativity is an important feature, and it is not available with Zoom.

Thus, in supporting the 4Cs of critical thinking, communication, cooperation and creativity, the private Facebook group is the optimal solution for an online community for this health-related group during the COVID-19 lockdown.

3. Discussion

There is no real substitute for in-person meetings when a function of the group is promoting a lack of hierarchy, non-competitiveness and equality among members. However, a private Facebook group—already in use for weekly reporting and for those people unable to make the in-person meeting—was found to have sufficient ability to support cooperation and equality among members that some participants even continued the creative in-person practice of drawing or doodling during the meeting and sending in their results with a description to be posted to the private Facebook group.

Moving the group entirely online had the unexpected result of decreasing the amount of weekly work for the facilitator. As an important group feature is that everything participants say at the meeting be recorded, the facilitator had taken hand-written notes at the in-person meeting to later type out to the private Facebook group. By having the group meet online using this online platform, requiring participants to type their own responses, the facilitator was saved the hours' worth of typing after the meeting to get the responses onto the private Facebook group, as each member typed their own responses from their computer or cell phone.

The concern was with finding an appropriate online platform for a health narratives research group that met both the expectations of the academic program to which it was associated and at the

same time supported the foundational aspects of this specially tailored group as both democratic and concerned with equal participation.

Once the group was confined to online meetings as a result of COVID-19-enacted requirements, it was found that the private Facebook group already in operation was better option to meet these expectations than a Zoom meeting because it supported the 4Cs where Zoom could not.

It is currently unknown when academic institutions will be able to reestablish in-person meetings as a result of COVID-19. Until then, it will be necessary for academic meetings to take place online. As a result, it is important for those holding online meetings to determine the best platform for discussion with respect to developing digital literacy.

If the purpose of the meeting is to transmit information to participants by a singular, mainstream approach, then Zoom appears an appropriate choice as its structure is reminiscent of a regular classroom. However, if the meeting is concerned with including and commenting on each person's point of view in a non-hierarchical, non-competitive and equal manner, supporting critical thinking, communication, cooperation and creativity then a private Facebook group is the more fitting alternative.

The facilitator of the group perceived that the private Facebook group would be the preferable method to Zoom when in-person meetings were cancelled by the university. However, the facilitator began with a bias against using Zoom. This is because the private Facebook group for that year had already been set up and had been in use for over five months before the COVID-19 pandemic necessitated moving online. It seemed both problematic and needless to set up a new method of online communication when one was already working well. Because of this inherent bias, it could be that the facilitator did not spend sufficient time looking for ways to make the Zoom meeting more compatible with the operation of the group. Nevertheless, the current limitations of the free version of Zoom mean that it is not designed to coincide with either the length of time required for the health-related group or with digital literacy supporting the 4Cs.

Although it may be true that ways could have been found to deal with some of the issues (especially with respect to the recording aspect if monthly payments were made), on the whole, it appeared evident to the facilitator that Zoom is primarily a forum for members of a group to see each other together at a designated time for an agreed upon period of less than forty minutes. These features of Zoom were not the main concerns of the health-related group, designed to focus on what its members respond in writing and drawing in a way that permits everyone to have the opportunity to participate to an equal degree. As such, it seems reasonable that in supporting digital literacy a private Facebook group that was already in operation be chosen for this particular group instead of Zoom when the need to meet online was begun as a result of COVID-19.

4. Materials and Methods

With respect to academic meetings in the health sector, the process of initiating digital literacy begins with building a rapport [41] with participants through a dialogue, as knowledge is distributed among participants and located within the context of activity [42]. Awareness about barriers to behaviour change in health [43] has produced a shift in professional thinking with respect to digital literacy away from using pre-packaged educational approaches that focus on individual behaviour change and towards collective action [44].

Theories on collective action and organizational change, inter-sectoral action and the development of healthy public policy now provide opportunities for community empowerment and addressing health inequalities [45,46]. The lessons learnt from a range of interventions have raised

professional awareness to look for a more balanced approach that increases the chances for effectiveness and sustainability [47]. What is clear is that using a combination of 'tailored' interventions can be a more effective option than using singular main-stream approaches [48].

The meetings of one collaborative health-related group provide an example of such a tailored academic meeting seeking to empower the group members and address inequalities regarding health-related research.

4.1. A Tailored Academic Meeting

The health-related group is one that epitomizes support of the 4Cs of critical thought, communication, cooperation and creativity in its very reason for being. It is a weekly, two-hour opportunity for university researchers ranging from undergraduates to full professors to take the personally relevant stories that initiated their commitment to health care and develop them into narratives with a particular point of view. The process includes both personal reflection and the willingness to share one's story and gain additional insights from the rest of the group. Although the level of experience differs among the researchers, for the purposes of the health-related group, members are asked to treat each other as equals. This is a continuing, voluntary, non-credit group that meets throughout the academic year and is open to any member of the university community interested in health care. Diversity of membership is sought and encouraged.

The group is facilitated by a philosopher of education who initially tailored this process for developing narrative in collaboration with a medical historian. The facilitator's role is similar to that of a health coach [49] or health trainer [50] for university researchers experiencing depression and/or anxiety with respect to their research careers. The group has been supported by a particular academic program since 2015, permitting the group to meet weekly at a university hospital over the academic year. For the 2019/20 year, during the COVID-19 pandemic, there were nineteen participants in the group ranging from across the university at various stages of their academic careers.

The philosophy of the group is unique and depends on a particular interpretation of truth developed by the philosopher of education who facilitates the group. With the foundational philosophy for the group—reflected with empirical research [51]—there are two avenues to truth through research. These may be analogized to two methods of approaching a landscape with barriers.

One avenue is disciplinary [52] and sees obstacles in the landscape as barriers to eliminate through climbing higher. In disciplinary research, higher views supersede lower ones because this type of research is necessarily hierarchical. In this analogy, the purpose of discipline-based research is to create the most accurate aerial view of the landscape by overcoming and rising above the obstacles in the landscape.

In contrast, narrative research [53] is the term used to describe the second method of traversing the landscape of truth. This type of research views obstacles in the landscape as landmarks to use in developing routes around these features. In narrative research, each person's point of view is considered equal and the routes created from one point of view to another are added together to complete the map of the landscape. The reason for deeming them equal is all points of view are considered necessary to view the landscape in its entirety. The purpose of narrative research in the group then is to create as many routes as possible from one point of view to another, which is why diversity is encouraged in group membership. This can be visualized as similar to how a "street view" is constructed in something like Google Maps [54].

From a philosophical standpoint, disciplinary research is concerned with the propositional aspect of the landscape of truth and narrative research with the ontic form of this landscape [55]. It is the collective cross-fertilization that comes from the concentration on narrative research that has been particularly fruitful for this group.

As a narrative research group based on a non-hierarchical structure, the group is also non-competitive. Before the lockdown, when the group met at the hospital, at the beginning of each meeting the facilitator provided a pre-planned prompt for members of the group to write in response to for five minutes, without stopping or lifting their pen from the paper. The initial prompt provided at the first meeting of the academic year asks each person to describe themselves with respect to their research related to health. In the weeks to follow, the prompts ask group members to first consider what is most objective with respect to their research related to health, then, as the weeks progress, the prompt questions elicit answers that are increasingly subjective. Although the individual prompt questions change each year, the order of the type of questions asked remains the same: when, where, who, what, how, why. More than one session is devoted to each type of question—four weeks for the more objective questions (when, where, who and what questions) and six weeks for those questions evoking more subjective answers (how and why questions).

This structure of question asking has been developed specifically for the group by the facilitator to help participants take the initial story of how they describe themselves related to their research and develop this story through a non-threatening and ever psychologically deepening way into a larger narrative with a particular point of view that will help to sustain their research throughout their career. In using this method, the meetings support critical thought.

Once participants have completed their written response to the weekly prompt, each person is asked to read their response, one by one. After a participant has read their response to the prompt, each other member is given the opportunity to provide one question to the person who has read to further clarify what has been read. The only requirement of the question asked is that it must begin with the same word of the week, i.e., if a "who" question is asked, each person then asks a clarifying "who" question of the reader. If a group member doesn't have a question, that person may pass. If a group member can't think of a question right away, after each of the other members one at a time has provided a question, the person who passed is given an additional opportunity to pose a question. The purpose of this is to permit those who ask the questions to see the landscape from the point of view of the reader. For the reader, the objective is to get them to revisit their point of view to picture it in greater detail. In each exchange, the development of communication is promoted.

Keeping with the non-competitive nature of the group, people wait their turn to speak and do not put up their hands. Members aim to make their questions as short as possible so everyone has the chance to speak. After each question is asked, the person who has read their reply to the prompt answers the question asked of them. When each person has asked a question of the reader, the person who has read gives a summary of how these questions may have helped them clarify their research. The facilitator notes down all the questions that people ask and the replies after which it is the next person's turn to read who is sitting on the left of the previous reader (that is, unless the group decides at the beginning of the meeting to go around counterclockwise that particular session). Who is to be the first person to read to start this process is chosen by the facilitator. This is generally someone who has not been able to attend the previous meeting or a member who has indicated that they can't stay the entirely meeting. Sometimes members ask to go first as well. Depending on each member to wait their turn and listen carefully to others requires the cooperation of all.

To help put members at ease, the facilitator provides the group with artists materials and paper, encouraging participants to draw or doodle during the meeting, offering an additional outlet to express their creativity. Sometimes drawing prompts are provided alongside the writing prompts.

Unlike the writing prompts, which are to be completed in five minutes, participants can respond to drawing prompts over the entire two-hour meeting, or choose not respond to them at all. No one is required to draw. When there is no drawing prompt, members are encouraged to doodle instead. At the end of the meeting, members describe their drawings or doodles one at a time going around the circle. The facilitator then notes down all the descriptions. After which, whatever is drawn as well as the written responses to the writing prompt, are collected by the facilitator to be posted to the private Facebook group to which all group members belong from the first meeting onwards. The purpose of encouraging group members to draw or doodle is it has been found within the group to reduce the anxiety and/or depression of those who find it a novel experience in an academic setting, helping them to concentrate more deeply on questions to ask the current reader [56].

One important aspect to this health-related group is that the facilitator participates in the process as an equal member [57]. As such, the facilitator both responds to the five-minute writing prompt and doodles when not recording the questions and answers of other members. In effect, those who are part of the group see the facilitator as an additional, and equal, participant in the landscape of truth. The aim is to decrease barriers to behavioural change by having these barriers reconsidered as features in the landscape defining a path to reduce anxiety and depression (known to cooccur [58, 59]) in the group members as much as possible.

4.2 Two On-line Platforms

The group has a history of offering the option of online meeting. To increase accessibility of the group and provide different opportunities for participation, it has always been important—pre COVID-19—to have an online presence so that those who are unable to attend a particular meeting can see each of the question prompts of the week, people's answers, and the questions others have asked those participants as well as the posted drawings. Furthermore, the online presence provides the opportunity for those unable to make the meeting to respond to prompts themselves (both in writing and drawing) as well as have questions asked of them and to ask them of others. The method to communicate online has been contributing to a private Facebook group developed specifically each academic year. Private groups are commonly chosen for health research, as only group members can view the content [60]. Zoom, however, is the recommended alternative in response to the COVID-19 lockdown. It has its own particular strengths.

4.2.1. Features of the Private Facebook Group

Facebook defines their group feature as "a space to communicate about shared interests with certain people" [61]. A private Facebook group is a community of Facebook users who are "friends" with at least the person who has created the private Facebook group. Only those who are part of the community can see what is posted to the group and can add to the discussion. The Facebook group belongs neither to the educational institution nor the participants. According to Facebook, participants are "neutral". However, this also means that the content of the private Facebook group belongs to the facilitator rather than the academic institution [62]. To become part of the private Facebook group in any particular year, each member of the group is asked to "friend" the facilitator who then adds them to the private Facebook group. Group members at that point have the choice of whether to friend any of the other participants additionally. Once the private Facebook group is set up, the facilitator records the following information weekly: all the responses to the prompts, questions asked and answered, the drawings and their descriptions for each member.

In addition to the private Facebook group, the accompanying Messenger app permits messages to be sent to people who are Facebook friends. Each app is free of charge [63, 64] and without a time limit for use for online communication. As a result of the ability of these two apps to work in combination, members who are unable to be at the meeting in person can participate in the weekly

meeting by replying via Messenger to the writing prompt the facilitator gives to each member weekly through Messenger a day before the meeting. Their replies are then read by the facilitator at the meeting and questions to the physically absent member are noted by the facilitator who later posts them to the private Facebook group after the meeting, permitting the absent member to read them online.

Members are encouraged to read the posts on the private Facebook group and respond to questions that they received from other members if they have not been present at the meeting. Members are also encouraged to post relevant links to the private Facebook group. This is useful when, during the in-person meeting, one of the members cites a reference and others want the relevant information to locate it. With the private Facebook group, it is not only simple for members to post a link with the reference cited it is visually attractive, as an accompanying picture normally is included with the link.

An additional aspect of the private Facebook group is it gives members the ability to access the private Facebook group when they have time. This may be right after the meeting, sometime during the week before the next meeting, or any time after that.   Members have the ability to scroll through the postings of the entire academic year using the private Facebook group.   As such, there are times when members find things posted that they want to respond to months after the posting was originally made.

4.2.2.   Zoom for Academic Meetings

The alternative to the private Facebook group used by the health-related group since 2015 is the online-platform suggested by the university as a result of the COVID-19 lockdown—adopted by other health-related academic meetings in the academic program—Zoom.

As a result of the COVID-19 pandemic, in April 2020, the *Wall Street Journal* observed that "the hottest video-chat app right now is Zoom" [65].   Thousands of institutions of higher learning have switched to using Zoom as a result [66].   Among the academic programs that felt it important to use Zoom, the one to which this unique health-related group belongs encouraged all non-essential academic meetings to use Zoom.

Zoom is a collaborative, cloud-based videoconferencing service offering features including online meetings, group messaging services, and secure recording of sessions [67].   At the basic level, is free to download and is relatively straightforward to use by group members once a Zoom account is set up by each participant. The host of the meeting sends an email to each of the potential participants indicating the time the meeting will take place and how the meeting should be accessed. Although in some cases participants must call in to join the meeting, most users need only click on the link at the appointed time to access Zoom once they have downloaded the app.   Often, before access can be granted to the Zoom meeting, there is an update to install. It updating is relative quick, but, until the update is complete, the potential member of the group meeting has no idea if or when they will be admitted to the meeting. These updates have been designed to deal with a number of Zoom issues [68]. After the host admits them to the meeting, the group member will then see the other meeting participants, normally in a grid pattern (although the view can be changed to a linear formation, though, in this case, not all members can be seen at once if the group is larger than around five).

Positive features of Zoom include the ability to quickly clarify problems, help decrease social isolation and improve the connection of the academic meeting's community of members. Some constraints are that meetings encourage some members to 1. talk longer than they intend, 2. multitask or become otherwise distracted, and 3. become frustrated and fatigued [69].

The most important aspect of Zoom is that all members of a group have the ability to see each other and participate in real time. As such, the duration of the online meeting can be the same as the previous in-person meeting. It can also take place at the same time of day and on the same date as would the in-person meeting. An additional feature of Zoom is that participants have the option of sending a written chat message either to an individual group member or to all the members. It is possible to videotape the entire meeting and to share the screen with another participant so that, for example Powerpoint presentations can be given by participants. However, storage and access of these meetings is not automatic for participants. Each member would have to select, on their end, that they want the meeting recorded and have paid for this option. Consequently, the meetings, if they are stored at all, are stored individually rather than in one place accessible to all [70].

Zoom depends on a reliable and stable internet connection. Without this type of connection what can, and often does, happen is that participants "freeze". While they are talking, the picture, rather than seen as a video, becomes a still and the group members can no longer hear what the frozen participant is contributing. Furthermore, if the connection is lost all together, the participant disappears from the grid. Normally, these problems last only for a few seconds. However, if the participant freezes, they have to repeat what they have said while frozen when they come back on board; in the meantime, they have missed what others have had to say. And if they have actually disappeared from the meeting, when they do reappear, they come back in at some other location on the grid, rearranging other participants to different positions as a result. If this problem occurs with only one participant, it is relatively easy to detect where the person has reappeared. On the other hand, if the meeting includes numerous people and more than one person loses their connection, it is very difficult to keep track of where people are coming into and going out of the grid. These are the most serious problems that have been recognized to occur with Zoom [71].

As of the time of the lockdown, 12 March 2020, Zoom was found to be the preferred technology for academic meetings. The benefits of using Zoom have been found by many academic institutions to significantly outweigh the challenges encountered and the use of Zoom may complement or extend research related to most academic meetings [72]. It is because of these benefits of a relatively easy, real-time video connection that permits the sharing of screens and annotations by all members to information presented [73] that it makes good sense for academic programs delivering educational content at academic meetings to consider Zoom their preferred online platform.

5. Conclusions

The video-chat program Zoom has a number of features that make it idea for replicating expository academic meetings. However, Zoom, for the reasons presented, does not work well for one collaborative, tailored health-related academic meeting. When academic units were required to move their non-essential meetings online as a result of the social-distancing demanded during the COVID-19 pandemic, the obvious choice because of its popularity was to use the Zoom app for meetings. It was this app that was suggested to the facilitator of the group by the director of the academic program of which the group is a part. However, this suggestion was not taken up by the group's facilitator for the reasons presented and a private Facebook group was used in its place with the approval of the director of the program.

In selecting an online platform for academic meetings, the overriding concern need be establishing digital literacy. As such, Zoom meetings are appropriate if the intent is to start the meeting at a particular time for an agreed upon duration of less than forty minutes and have the opportunity for everyone appear together in an equal grid-like formation. This type of format lends itself to didactic interactions. Meetings on private Facebook groups can start at an agreed time and go for a particular duration; in this way, they are similar to Zoom meetings, but they can do

so for any length of time. On the other hand, they require that participants be comfortable with typing as there is no video connection, in contrast to Zoom. Nevertheless, this limitation is also the strength of private Facebook group meetings because what is discussed during the meeting requires critical thought which is then recorded for members to see, both during the meeting and to retrieve at a later time.

The move to online platforms for all non-essential meetings at a university hospital was instituted on 12 March 2020. It was at that point that the choice had to be made by one health-related group whether to follow the academic program's recommendation to use Zoom or to continue with the private Facebook group that was already in operation. However, as of mid May 2020, a new option became available: Messenger Rooms. This is a free new video chat feature by Facebook that permits fifty people to chat at once with no time limit [74]. In making the choice to stick with a private Facebook group rather than Zoom it means that future meetings of the health-related group will have the option of also including video chats in addition to the written material and drawing that will be part of the new private Facebook group for the upcoming year.

In a health-related group meeting that is concerned with what each individual has to say as an equal participant—rather than transmitting information from teacher to learner about the topic being discussed—and with encouraging each member to express their point of view, the private Facebook group has been argued to be the more adaptive alternative to online meetings in comparison with Zoom. As the need for on-line academic meetings persists as a result of COVID-19, digital literacy in all of its aspects should be the determining factor in deciding the appropriate on-line platform. Although encouraging multiple perspectives and respecting individual differences is not currently the norm for online academic meetings, there has been a call for some time for more of such online groups to empower groups in a complex world [75, 76]. And as digital literacy itself is attuned to the 4Cs of critical thinking, communication, cooperation and creativity, the more academic meetings resemble the health-related group sessions the focus of this report the more often they will choose a private Facebook group in contrast to Zoom.

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