Sustaining the experience: Students' perceptions of online field trips.

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Abstract

COVID-19 caused significant disruption for all industries, including education. Many studies, including tourism, utilise field trips to support student's learning, which were moved online in response to the pandemic. Understanding students' perceptions of virtual field trips is necessary to improve their usage. A total of seven focus groups were conducted with undergraduate students in Qatar, the UAE, and the Netherlands to explore students experience with field trips. Students were split into groups based on their familiarity with i) physical; ii) virtual; or iii) physical and virtual field trips. Physical field trips were preferred because of the out-of-class learning, socialisation, and networking opportunities. Virtual field trips had some noteworthy advantages, such as improved flexibility, repeatability, and access to otherwise off-limit sites, but unless improvements could be made to the social and networking opportunities, virtual field trips may always appear inferior. Through comparing students' experiences with physical and virtual field trips, this research provided notable insights into what can be done to improve the field trip experience. This could include better planning and structuring virtual field trips to provide networking experiences, including AR or recordings of physical field trips to facilitate repeatability, and supplementing a few physical with several virtual field trips.

Key words: Tourism education, Hospitality education field trips, virtual field trips

Introduction

In the study of hospitality and tourism, there are demands from both academe and industry to ensure students receive some practical exposure to improve their understanding and learning (de Lucy, 2018; Saner et al., 2016; Wakelin-Theron et al., 2018). There are a several methods to achieve this experiential learning, including case studies, apprenticeships, internships, on-the-job training, and field trips (Azanza et al., 2022; Jamnia & Pan, 2017; Kim & Jeong, 2018; Lucia et al., 2021; Patiar et al., 2021). Field trips form an integral part of many tourism and hospitality (T&H) programmes, helping to provide students with the desired industry exposure through an academic structure, helping them to understand the relationship between academia and industry (Goh, 2011; Patiar et al., 2021). Furthermore, field trips can offer students local and international exposure to several different businesses in a short period. As more universities move away from offering practical on-campus education, for a variety of reasons (Patiar et al., 2017a, 2017b; Xie, 2004), the value of field trips increases to provide such applied learning opportunities, while also helping to update faculty with the latest industry trends (Goh, 2011). Field trips take students out of a traditional classroom environment (Goh, 2011)(Goh, 2011; González-Herrera & Giralt-Escobar, 2021; Xie, 2004). Field trips can be conducted locally with students being taken to one or several nearby business, or can entail international or regional travel to participate in a series of site visits to non-local businesses (see Goh, 2011). In tourism and hospitality, the latter has the additional advantage to providing students with real-life hospitality and tourism experiences in addition to the businesses or activities in which they participate (Xie, 2004).

Goh (2011) provides several examples of past studies which describe their field trips. Some of these include taking students on a two-day trip from Hong Kong to China to visit 3 destinations (Wong & Wong, 2009), a 4-day trip to Niagara Falls for students from an Ohio-based university (Xie, 2004), an 8-day trip for students from Texas to Mexico (Gretzel et al., 2009), and Goh's own visit to a local hotel. Goh's trip included 2 classes visiting a hotel which included a site visit and presentation (2011, p. 63).

Along with the numerous disruptions which COVID-19 brought to the world, physical interactions were an obvious one in education, particularly in hospitality and tourism education due to the applied nature of the study (Alexander, 2007; Patiar et al., 2021; Riley et al., 2002), affecting aspects such as training, lecturing, and internships (Broek et al., 2017). As with other businesses, as global lockdowns were adopted, education institutions rapidly transitioned to an

online model (Han, 2020; Quay et al., 2020). This, in conjunction with international travel restrictions (Gössling et al., 2021) has had particular impacts upon international field trips, many of which quickly adopted virtual experiences as an alternative (Han, 2020). This move has exposed faculty and students to the possibility of running and participating in virtual field trips (VFTs), over physical field trips (PFTs), which could witness more wide-spread adoption in the post-COVID years. It is, therefore, important to question how appropriate and sustainable VFTs are in terms of student education (see Patiar et al., 2021). As educational institutions train the leaders of tomorrow, we argue that schools need to set an example by exploring how new technologies may be used as an alternative for 'operational enhancement' (Nam et al., 2020) of traditional education and travel.

Despite the fact that educational institutions have been forced to offer virtual learning experiences because of the pandemic, virtual education can also be a future-proof and sustainable alternative to physical education (Kim & Jeong, 2018; see Patiar et al., 2021; Salmerón-Manzano & Manzano-Agugliaro, 2018). Such alternatives can offer students access to remote or protected sites which may not be accessible physically (Nam et al., 2022). However, the quality of the learning experience and learning outcomes of this type of education are important to consider, especially in T&H programmes that regularly adopt practical components (Davies & Davies, 2021). This research is being undertaken to explore students' experiences of PFTs and VFTs, with an aim to offer recommendations on what practices to avoid or adopt when planning PFTs and/or VFTs.

Although several studies have been undertaken comparing the effectiveness of field trips (Sotomayor, 2021) and comparing practical with VFTs (Patiar et al., 2017a, 2017b, 2021), there is limited insight on students' experiences of field trips, particularly when conducted virtually (Cliffe, 2017; Han, 2020; see Wong & Wong, 2009) in terms of what practices they like or dislike. This has then created a literary gap with which this current study will also aim to make contributions towards and fill in the gaps that may have been created by the challenges caused by the pandemic.

The aim of this study was, therefore, to explore students' perceptions of VFTs. To achieve this aim, the study set 3 objectives: i) to explore students experiences with field trips; ii) to explore the difference in student perceptions between PFTs and VFTs; and iii) to offer recommendations concerning the implementation of PFTs and VFTs.

Literature Review

Practical exposure in tourism qualifications

The tourism sector has seen substantial growth over the last decade to make it one of the top employers in the world (WTTC, 2021). With this much influence on the global economy, a need then arises to focus on T&H education and its relation to employment. Research indicates that higher education institutions are under pressure to ensure that graduates exit the education system equipped with the requisite skills and knowledge (Wakelin-Theron et al., 2018) to fill the careers offered in such a varied field (Laire et al., 2012). It is thus vital for education institutions to identify and consider the most important knowledge and skills for tourism graduates in preparation for the work environment. Studies have further indicated that the hands-on nature of the sector requires education to also contain practical components. It must, therefore, balance three important requirements (Alexander, 2007; Riley et al., 2002) to advance and disseminate knowledge, to focus on the promotion of individual development, and to be as practical and relevant to the industry as possible.

Added to this is an understanding that students learn to interact practically with both customers, managers, and improve self-confidence, practical skills, and social competencies when participating in practical trainings. Such practical exposure also provided students with better insights into future careers (Lee, 2008; Tse, 2010). According to de Lucy (2018), a third of employers have refused graduate applications that are not accompanied by at least a year's worth of practical experience.

These are sentiments echoed by the academic staff at tertiary institutions who agree that practical exposure and professional experience are supportive of each other when addressing the gap between employment and education (de Lucy, 2018). Companies prefer candidates who display the willingness to become the most successful individuals in their careers and have taken the initiative themselves to achieve these milestones. Stakeholders agree it all begins even before the qualification is attained, through practical learning (Saner et al., 2016; Wakelin-Theron et al., 2018). According to Pan and Jamina (2017), national education programs in Taiwan rely on the practical side of education in hospitality and tourism by providing their students with the chance to conduct fieldwork with companies and develop tourism plans needed for the development of the sector in the city. Blending education with field work gives added value to the hospitality and tourism sector development. Furthermore, Lucia et al. (2021) mentioned that integrating humanistic management in education would help equip the future workforce in the hospitality and tourism sector. Interaction with managers and

supervisors while conducting on-the-job training will equip graduates with the required skills and competencies to meet the changing needs of both the consumers and the market itself (Lucia et al., 2021). Considering the importance of the hospitality and tourism sector in Europe, the European Parliament was vocal in that area conducting a study (Broek et al., 2017) to highlight the importance of apprenticeships. Results revealed that students participating in apprenticeships were more capable of achieving their learning outcomes and acquiring transversal skills applicable across a range of occupations. Another study conducted by Azanza et al. (2022) aimed at exploring the importance of learning by doing (LBD). Results showed coaching and experiential learning methods foster motivation, performance, communication, self-awareness, conflict management, and problem-solving. According to Goh (2011), field trips are an excellent source of on the job-training. The latter surveyed first and second years students majoring in tourism and the results showed that students believe that field trips are forms of on-the-job training that would enhance their education pathways. Field trips show how the hospitality sector operates and provides hands-on experience for students. Putting field trips under the umbrella of on-the-job training would encourage students to further participate in such activities to enhance their practical skills.

Field trips offer an excellent source of practical exposure to students by providing them with opportunities to visit multiple businesses around the world through local or international site visits. Additionally, by changing the environment, it may be possible to place the students in an alternative state of mind, helping them learn more (see Moscardo, 1991, 2009; Stainfield et al., 2000). Field trips have also been reported to make students feel more attached to the subject, while also improving their critical and analytical skills (Behrendt & Franklin, 2014; Patiar et al., 2021). However, the high costs of travel, insurance, and logistics of moving students internationally can make implementing international field trips challenging (Patiar et al., 2021; Stainfield et al., 2000), COVID notwithstanding. VFTs have started to increase in popularity, partially due to their advantages of allowing students to travel to a wide array of different destinations with relatively few restrictions and facilitate more efficient field trips, especially when combined with physical trips (Garcia et al., 2023; Stainfield et al., 2000). Furthermore, as more businesses, including universities, look to improve their sustainability practices, VFTs can be attractive in offering students the field trip experience, without the need for carbon-emitting travel (Leininger-Frézal & Sprenger, 2022). VFTs, however, can suffer from many of the issues currently affecting virtual reality experiences; lack of immersion, authenticity

concerns, lacking a sense of presence (Beck et al., 2019; Nam et al., 2022), which can result in less memorable or effective learning experiences.

The transition from practical learning to virtual learning

Before COVID-19, several authors (Dembovska et al., 2016; Schott, 2017) have discussed the importance of VFTs in the sense of creating more space for interaction and limiting the environmental footprint of travel. However, the level of adoption was low (Cliffe, 2017) given the lack of commitment from both academics and organizations in facilitating the use of technology in such activities. However, government responses to the recent COVID-19 pandemic forced education institutions to rapidly adopt online practices (Bryson & Andres, 2020; Horton, 2020). While, in many ways, this was not ideal due to the lack of planning, individuals and institutions were exposed to alternative practices and technologies which could provide preferrable or better opportunities for higher education (Kenny & Dutt, 2021; Sigala, 2020). Welcome changes to current practices can occur to consider the intended outcomes of higher education, and the ways in which the desired outcomes are delivered (Bryson & Andres, 2020; Kenny & Dutt, 2021; Patiar et al., 2021). Understandably, this period is one of both excitement for some and anxiety for others as the lack of live interactions could compromise the practical components of T&H education, which are important to students' higher-level learning (Cliffe, 2017) and workplace skills development (Bayerlein & Jeske, 2018). Furthermore, at times the practical component to learning in tourism involves 'on-the-job' related trips where students may get to observe professionals within the sector performing their duties, which may be lost in virtual environments (Jackson, 2015; Kraiger et al., 1993; Lei & So, 2021).

Much research on transitioning to online education either considers student perceptions of online education, or factors affecting students/teachers acceptance of online teaching (Bryson & Andres, 2020; Lei & So, 2021). Students' perceptions of the trade-offs between online and physical education, particularly as it relates to practical components, such as field trips, is scant (Patiar et al., 2021).

The transition from practical to online learning has had a significant impact on both faculty and students because established process and approaches now must be revisited, and online courses can be delivered in a variety of ways. Of the many styles of virtual learning, synchronous learning has the illusion of being the most familiar to face-to-face, wherein instructor and student simultaneously connect to progress through the content (Murphy et al., 2011). Given

the rate at which the transition to virtual learning was made, it is likely that synchronous education was preferred over asynchronous for classes and field trips. The impact this has on faculty and students' preparedness and perceptions of field trips remains unclear.

As with virtual learning, there are different varieties of VFTs which can exist. From the online learning perspective, field trips could be conducted synchronously or asynchronously. In a synchronous manner, all students and teachers would visit a destination at a pre-determined time and move through the site together. In an asynchronous manner, students would visit the site at a time and date convenient to them. This would mean that students visit sites independently of one another and their teacher. A summary of possible styles of VFTs has been provided in Table 1.

Table 1. Possible VFT structures.

Factor	Description	References
Timing	Synchronous: all students and teachers would visit a destination at a pre-determined time and move through the site together at the same time. Tools that can support synchronous timing include text-based chat, analogue telephone, digital telephone, such as Skype, video conferencing, audio conferencing, whiteboards, and application sharing.	(Murphy et al., 2011; Wyatt et al., 2023)
	Asynchronous: students would visit the site at a time and date convenient to them and possibly independently of other students or faculty. The tools that can support asynchronous timing include, email, content material, discussion forums, social media. In addition, other tools such as Learning Management Systems (Moodle, Web CT, and Blackboard) are examples of in-house support methods.	
	While both tools complement each other, several authors (Bernard et al., 2004; Hrastinski, 2007) believe that asynchronous learning is more effective, in terms of achievement,	

Interaction	Interactive: students would be able to see and possibly interact with each other in the virtual environment, most likely through the use of avatars. This would fall into the wider categorisation of a Metaverse. Non-interactive: students may view and possibly move around the same site at the same time but be unaware of other viewers and be unable to see or interact with other viewers. Huang et al. (2013) conducted a study on interactive learning in a 3D virtual world. The study shows that interactive learning Is giving more positive emotional stimulation for students to engage in virtual learning.	(Buhalis et al., 2023; Garcia et al., 2023; Patiar et al., 2017a, 2017b, 2021)
Navigation	Free navigation: using controllers, students would be free to explore a site at their own pace and order. Controlled: users would be forced along a certain route at a certain pace, such as watching a video which shows users the same display and moves at a pre-determined speed. In the virtual world, students prefer free navigation while having the ability to have sound and visual effects to facilitate their experience.	(Ruberto et al., 2023)
Guides	Group guides – students follow a guide (virtual or physical) around a site who provides all the necessary information. Unguided: students explore a site themselves and are either presented with no information or location-based videos or text which act as guides when students reach a certain location. Moore et al. (2011) studied virtual field trips long before they became familiar to the wider community in tourism. According to Moore et al. (2011) virtual tours were mostly conducted based on stored information within the system without the need for a "Group guide". However, Cilliers et al. (2022), guided tours are needed in the after COVID-19 era	(Garcia et al., 2023; Ruberto et al., 2023)

	because students are used to someone being narrating and explaining in the background.	
Display mode	niVR (Non-Immersive Virtual Reality): users use a standard TV or computer screen to participate in the tour and view the sites. This can include the use of 360 videos.	(Garcia et al., 2023; Nam et al., 2022; Petersen et al., 2020; Zhao et al., 2022)
	siVR (Semi-Immersive Virtual Reality): users are in studios with large screen or wall projections to create a 'virtual room'.	
	fiVR (Fully-Immersive Virtual Reality): users wear a virtual headset which provides a more immersive VR experience where users see and feel like they are in a different environment.	
Location	Remote: students independently connect and participate in a virtual tour through their own devices, or provided individual devices, at any location.	(Wyatt et al., 2023)
	On-site: students meet in a classroom, for example, and visit virtual destinations while all physically in the same location.	

A number of studies have explored VFTs, often looking at students expectations and perceptions of VFTs (Patiar et al., 2017a, 2017b), the improvement in learning or skill acquisition (Garcia et al., 2023; Patiar et al., 2021; Ruberto et al., 2023; Sotomayor, 2021; Zhao et al., 2022), and the role of field trips in the experiential learning process (Patiar et al., 2021; Xie, 2004).

Extant research on field trips, particularly VFTs, has frequently undertaken a framework looking at cognitive or affective outcomes (Patiar et al., 2021; Ruberto et al., 2023; Sotomayor, 2021), or explored the experience of students on the field trip – often considering the quality of the system being used (Garcia et al., 2023; Patiar et al., 2017a, 2017b; Xie, 2004; Zhao et al., 2022), sometimes following specific frameworks such as Importance-Performance Analysis (Patiar et al., 2017a). Most research has been largely exploratory, adopting a mix of qualitative and quantitative methods. There is little research on the comparison between PFTs and VFTs, particularly focussing on students' experiences which would support improve management of their delivery. Many experiences are subjective; students may react differently

to this new shift with expectations of enthusiastic students anticipating a fascination with the virtual undertaking or a complete lack of interest of such a virtual undertaking. This may then lead to semi or poorly skilled personnel at later stages of employment. Conversely, the increased use of virtual experiences could expose students to new experiences and insights, not possible physically (Nam et al., 2022) or which may arise in a more technologically-evolved future (Dutt et al., 2022; Patiar et al., 2021). Furthermore, lecturers' roles now have to adapt to impart knowledge and support students in different ways, with different feedback mechanisms as many of the traditional tools to gauge student understanding may not be available (Bryson & Andres, 2020). Lecturer's varied skills in these new arenas can complicate the transition. The adaptation in approaches from practical to virtual type learning has unknown impacts on students' learning experiences and the sustainability of such shifts (Boling et al., 2012). These are some of the fundamental inquiries for which this current study is being undertaken.

Some research has highlighted that the uncertainty of a smooth transition to adapting to VFTs lies with the type of technology adopted or preferred in the implementation of such activities (Day et al., 2021). For example, using more immersive technology, such as fiVR (fully-immersive VR) headsets, may provide a more informative and entertaining experiences (Nam et al., 2022), but requires considerably more time, money, and planning, to run and operate. It is, therefore, necessary to develop a more thorough understanding the process of adopting virtual experiences to ensure an appropriate implementation. By understanding students' experiences of VFTs, it will be possible to design more effective and supportive field trips using the appropriate as per students' expectations.

Research Methodology

A qualitative research approach was adopted which allowed for greater focus on why students held the perceptions and undertook the actions they did (Rosenthal, 2016), following an inductive research philosophy (Zikmund et al., 2012). Focus groups were chosen to provide a greater insight from a wider number of participants. In a similar theme as semi-structured interviews, focus groups allow detailed meaning to be conveyed and thoroughly explored (Gill et al., 2008). However, they also facilitate more efficient data collection (Parker & Tritter, 2006) and can offer insight not available through other methods because of the interaction between participants (Jennings, 2010). The research adopted a trans-national approach to provide more data and insight into undergraduate student perceptions, while also considering possible cultural or institutional differences on perceptions of VFTs. Three institutes of higher education in Qatar, the UAE, and the Netherlands were involved in this research, all offering

degrees in hospitality and tourism. The choice of the three locations was based on the institutions shared membership of an international quality assurance accrediting body, which helped to ensure similar standards of education quality. Focus groups were held physically and virtually, depending on social distancing restrictions. Focus groups facilitated discussions and allowed for participants to be carefully observed, aiding in understanding the efficacy of the focus groups data (Jennings, 2010).

Sampling Procedures

A purposeful sampling technique was used to select the subjects of this study (Seidman, 2006), to allow for undergraduate students with the appropriate experience of virtual and/or physical trips to be invited to participate who would provide the most insight to the topic.

To build the sample, the researchers developed three lists composed of students, based on their field trip experience (Gullifer & Tyson, 2010); physical (Group 1), virtual (Group 2), or both physical and virtual (Group 3) field trips. Undergraduate students were then contacted and asked to participate in the study, with a target of 8-12 participants per focus group. This number is ideal for a focus group study as it allows for sufficient discussions between participants, without becoming overly complex to run nor extract too shallow information from participants (Gullifer & Tyson, 2010; Jennings, 2010; Wilson, 1997). This provided 24 participants from both Qatar and UAE, providing a total sample size of 48 individuals, across 6 focus groups. In the Netherlands, one focus group and one interview were conducted since participants had only qualified for Group 3 (both physical and virtual fieldtrips), due to the lack of both virtual and physical fieldtrip experiences provided by the institution. In Groups 1 and 2, the focus was upon the participants' experiences of either physical or VFTs respectively, while Group 3 offered participants the opportunity to compare their virtual and physical experiences. For the VFTs, all students participated in a tour guide-led presentations and tours through Zoom or Microsoft Teams, or instructor-led tours of destinations which had been recreated virtually. All students used niVR (non-immersive Virtual Reality) systems, using computer screens, mice, and keyboards to interact, rather than headsets or tactile input devices and controllers.

Data Collection

Prior to data collection, the researchers held a briefing session to ensure consistency in the data collection procedures. Each researcher facilitated the focus group for their respective students following a standardised template and process.

Focus groups commenced after participants had been fully briefed on the research purpose and process, and had signed the necessary consent forms. In each session, the facilitator initiated the discussion by reminding participants about the purpose of the research and the focus group. Participants were provided with the questions and equipment with which to make notes which were later returned to the researchers after the focus group discussions. Participants were asked six main questions, available in Appendix A.

The researchers guided the participants through the questions, but generally let the discussions emerge and evolve with minimal interference (Jennings, 2010). Throughout the discussions, the researchers recorded notes for the participants which assisted in reminding participants about the questions and helped to ensure the accuracy of the researchers' notes.

At the conclusion of each focus group, the researchers reminded participants about the confidential and anonymous nature of the activity before requesting any privately made notes to be shared with the researchers.

Data Analysis Procedures

The data was analysed using content analysis, which allowed for an interpretive paradigm by gaining the subjective views of the participants (Creswell & Creswell, 2018; Jennings, 2010; Saldaña, 2016). Following this approach, focus group notes and recordings were analysed immediately after the focus groups concluded to ensure the researchers' memories of the discussion were fresh. Notes and transcriptions were read multiple times to look for new or existing codes to emerge from the transcriptions. Once a code was uncovered, it was colour coded through QDA Miner. Once the first round of coding was completed, transcripts and codes were reviewed again to ensure inter-research reliability with codes, to ensure coding was appropriate, and to see of sub-themes could be merged into larger themes (Gullifer & Tyson, 2010). In this study, researchers utilised the services of Otter.ai to support the recording and transcription of focus groups with high accuracy (Nam et al., 2020). Throughout the analysis, the researchers worked collaboratively to ensure consistent and accurate coding of the data. To ensure inter-researcher reliability, one researcher independently analysed the data before sharing the completed analysis for discussion and to address any deviations in analysis and interpretations from other researchers (Gullifer & Tyson, 2010; Jennings, 2010; Saldaña, 2016). A summary of this process has been provided in Appendix B.

Ethics and Confidentiality

The study adhered to several measures that ensured that data was collected and processed in the most appropriate manner without influencing the data (Miller et al., 2012). Prior to their participation, students were provided with a consent form which informed participants of the study's purpose, that they had the right to refuse participation, the right to withdraw at any time, that all data would be collected and analysed confidentially and anonymously, and that participation – or not – would not bring any harm or disadvantage to the individual. Throughout the data collection and analysis processes, data was treated in a deidentified manner so responses could be traced back to any individual or group.

Findings

The findings are structured based on relevant themes. Illustrative quotes are provided identifying the location (Dubai, Qatar, or Netherlands) and the type of focus group; Physical only (P), Virtual only (V), or Physical and Virtual (P&V). A full list of all themes and sub-themes have been included in Appendix C.

Learning

When questioned about their perceptions and attitudes towards field trips and virtual tours, a frequent comment referred to the learning they received. This included students' learning preferences (traditional vs. online learning) and learning quality. The last element was the most discussed considering the kinds of tours offered, especially concerning VFTs. Participants believed that educational quality must be maintained throughout tours, especially virtually by maintaining viewer interest, providing more immersive and engaging tours, as well as some unique pro-virtual tour opportunities such as cross-university collaboration, and the ability to replay and revisit tours multiple times.

Learning Preferences

Participants demonstrated mixed views of online learning with some expressing their delight at the method as it "*suited their personality*" (Dubai, P) and that it was sometimes "*fast and more convenient*" (Dubai, V). Others, however, expressed distaste for the approach, generally seeing virtual as a sub-par approach in comparison with physical; "*Virtual is more entertainment-focussed* [no education]" (Qatar, P&V), "*Online learning does not work; it is less engaging, and it is easy to be distracted*" (Dubai, P&V). A final group of students felt that virtual learning did offer a potential future, if adopted in a hybrid format "*Hybrid was a perfect solution, given stable technology and internet etc.*" (Dubai, P).

Overall, it appeared that physical learning was preferred, followed by virtual learning for some individuals and for some courses or types of class. However, when the suggestion of a hybrid class was proposed, it was supported by the remainder of the group. Given the forced, wide-reaching movement to online, such sentiments are not unexpected.

Learning Quality

A significant concern raised by all students, regardless of their educational preference or type of experience, was the quality of their learning. In general, students were happy if they felt they were getting a good educational experience. This theme covered restrictions placed upon students that had a detrimental effect on their learning, such restricted physical access "*I do think, however, that real participation is more physically than virtually.*" (Netherlands, P&V). In other cases, COVID had dominated their courses, creating concerns about post-COVID applicability "*COVID will disappear, then everything will go back to normal – assignments, industry discussions are too covid-based, losing out on post-covid future*" (Dubai, P). In terms of field trips offered, the emphasis appeared to be on the method of conducting the trip or providing information "*The second* [Field trip] *I was paying a little bit more attention because they also have the second lady there who was trying to get people involved, asking questions, and the lady presenting was just more enthusiastic and lively and or maybe it's because I think* [Country 1] *is more interesting than* [Country 2]*, also.*" (Qatar, V). The quality of learning was also extended to the relevance of the tour "[Field trips should be] *Relevant to subject & course*" (Dubai, P).

Overall, students appeared sensitive to the quality of learning they were receiving. Regardless of education learning and delivery style, if students felt they were getting a quality, relevant education, they were supportive of the chosen learning and field trip methods.

Organisation

The most occurring theme, organisation, included elements important to consider when designing tours, particularly virtual tours: Accessibility, application, cost, experience, facilities, flexibility, guides, interest, inventive, planning, timing, and trust.

Access

Participants explained that virtual tours generally provide better accessibility than physical tours in terms of access to different sites, and access at different sites. Virtual tours allowed

users to access multiple sites around the world simultaneously while also providing access to physically restricted sites "*Dangerous or difficult trips can be undertaken*" (Dubai, P), or sustainably sensitive sites "*I don't know how to explain it like a place that does not need much human like people coming into it like for example like a forest like places that don't need noise pollution. Loads of people coming into it. So that will be useful.*" (Qatar, P). In some situations, virtual tours provided an opportunity for students who could not physically travel to still participate, in case of health and safety or visa issues, or lack of parental consent "*Maybe some parents might not allowed their kids to travel alone, so the virtual tour solve this issue by give the parents the trust so they can let their kids to travel, even their mother and father that they get old* " (Qatar, V).

Aesthetics

A common advantage of field trips, particularly physical field trips was how they facilitated learning in different environments as it provided a "*change from the usual class environment*" (Dubai, P&V). In some cases, the aesthetics of the site visited became a notable memory of participants "*the atmosphere, everything next to the educational excursion itself makes the fieldtrip fun.*" (Netherlands, P&V), particularly when escaping less comfortable climates back home "*Around March the weather was perfect and different from what we left in Qatar*" (Qatar, P). Some of these elements created unique experiences which could not be replicated virtually "*actually walking through the building gives a special experience that is less likely when you experience the building through for example a camera.*" (Netherlands, P&V) "*Perhaps the presentations in themselves, that could have been virtual, of course, but I don't think that feeling of walking through those buildings.*" (Netherlands, P&V). When referring to virtual tours, aesthetics still referred to the physical environment, but this time, the physical environment was the environment from where students were accessing virtual tours and their personal equipment affected the quality of their experience "*Facilities to attend online classes without distraction is not universal*" (Dubai, P&V).

Application

Regardless of the mode of field trip, students felt it important that field trips provided them the opportunity to "*apply learning to live situations*" (Dubai, P&V) and wanted to clearly understand the intended outcome of the field trip and ensure it was met; a field trip for the sake of a field trip was not desired "[we need to have] *an objective, activity, or incentive should be*

achieved by the end of the trip" (Dubai, P). Clearly applicable trips increased students' interest in and learning from the field trips.

Interest

Field trips needed to be interesting, in terms of the sites visited and the information provided, to encourage students to participate and learn more. Field trips needed to be "*More interesting, more engaging, more memorable*" (Dubai, P) to have a meaningful impact on students. In this sense, VFTs had to make more of an effort to be interesting because "*Virtually, the threshold for stopping is lower than when you are physically there.*" (Netherlands, P&V)

Flexibility

One of the biggest advantages of VFTs was the greater flexibility they offered. Students were able to participate in field trips from a wide variety of physical locations (from school to lying on their bed), sometimes at a time convenient to them, and they could often revisit, replay, or stay longer at certain sites or specific moments "[There is a] *flexible location of conducting the tour and you can spend more time at places/sites that interest you*" (Dubai, P&V) "*I don't mind continuing with experiencing virtual fieldtrips because I like how it's easy to travel the world in the same day and at home.*" (Qatar, P). Some participants expressed a desire for this flexibility to continue in the future and be enhanced by exploiting "*…opportunities to work with different universities*" (Dubai, P), visiting a greater variety of sites, and adopting "*Varied methods of delivery for different groups and different groups' requirements*" (Dubai, V).

One negative that did arise, however, related to the lack of flexibility at the virtual site in terms of ability to move around and engage is conversation or ask additional questions freely "*The freedom of choice that you then have when you stand in a building. Yes, that is better when you are actually standing there*" (Netherlands, P&V) "*But because you were walking around in smaller groups, you could really have a conversation with the guide and could ask a question in a much more personal way than if you were giving a presentation in a group.*" (Netherlands, P&V).

Planning

The final sub-theme which arose seemed to be the broadest and most influential of those under the theme organization. Students described the importance of thorough and complete planning of the field trip to ensure the trip was logical, structured, interesting, and relevant. This included logistics to and within the destination, avoiding over-complicated trips which would tire the

students, considering how students would explore the destination – in groups or individually – group size, the cost, how to ensure the information provided was trustworthy, and to ensure that the field trip had a clear, communicated, and achievable objective. Table 2 provides a summary of the different elements which arose when referring to the planning of the trip, along with a brief explanation and sample quote.

Table 2: Summary of findings under the theme *Planning*

Component	Explanation	Quote (source)
Guides	Appropriate guides should be sources who have knowledge on the subject and convey this knowledge in an interesting way.	"*Tour guides need to make it fun to grab attention*" (Dubai, V)
Itinerary	The trip should have a clear and communicated structure. Some prior activities or research should be undertaken by students to prepare for the trip.	"*It should be a planned trip – itinerary at site*" (Dubai, P) "*Teacher needs to be prepared – how does it relate to the topic*" (Dubai, P) "[Search for] *Some details about the country or the business or about that trip in general.*" (Qatar, V) "…w*e didn't know exactly where we were going beforehand. If you go outside of Europe, you really need to have a clear programme of we are really going here and we are going to look behind the scenes.*" (Netherlands, P&V) "[Provide a] *guide on appropriate behaviour and safety*" (Dubai, V)
Logistics	The best methods of travelling to and within destinations as well as preparation given varied weather conditions should be considered.	"*Transport – some make their own way there and get delayed*" (Dubai, P) "*More time in transit than on tour*" (Dubai, P&V).
Cost	The cost of the field trip should be accounted for – this is usually an advantage for VFTs as they are frequently cheaper.	"*What is the advantages of virtual fieldtrip images, is that it's cheaper than travel*" (Qatar, P) "*a physical fieldtrip has more costs, so has financial impact for students. But the money spent is worth it.*" (Netherlands, P&V)

Method of touring	The method of navigating the destination should be addressed to provide the best experience for students. No clear consensus arose, except for small group sizes. Some preferred to be led by the teacher/guide, others preferred self-exploration. Some students also commented on combing virtual with physical field trips.	*"Difficult for teacher to track students and keep current to topic"* (Dubai, P) *"Ask people to go privately & share experiences"* (Dubai, P) *"Instructor-led tour to avoid 'wondering'."* (Dubai, P) *"Mix physical and virtual"* (Qatar, P&V).
Group size	Based on the method of touring, the group size had to be considered, with a general preference for smaller groups	*"Disorganized with large groups"* (Dubai, Virtual) *"[There should be] fewer attendees"* (Qatar, P&V)
Trust	Some question arose as to the accuracy and trustworthiness of the information provided by, usually, virtual tours.	*"Virtual tours, are they more trustworthy? Less trustworthy?"* (Dubai, V) *"…is not same as towards truth, because it works it seems a bit tough. Rather not knowing what, what is see what we are feeling. We don't know."* (Qatar, V)
Outcome	The field trip should have a clear outcome which should be relevant to the students' education and career.	*"[There should be an] objective, activity, or incentive to achieve by the end of the trip. Maybe it should be graded, maybe provide certificates"* (Dubai, P)

Virtual tours had the advantage of providing greater accessibility to global sites and a wider variety of global and possibly inaccessible sites at lower costs with more flexible choices and timings. However, it is important to ensure that virtual tours are relevant, learnings can be applied by students, the tours are immersive and interesting (with good tour guides which may require considerable planning from the instructor), and information provided is carefully managed to ensure that trustworthiness of information. Physical tours, however, did not have as many hindrances here, although the purpose and applicability of the tour should still be ensured. With physical, the presence and quality of facilities (F&B, toilets etc.) became more important and, sometimes, an added incentive to participate.

System

The second most commented theme after organisation and particularly important for virtual tours; the system used. This theme itself divided into two related sub-themes; with students preferring a high-quality and immersive system. The quality of the system referred to "*good IT infrastructure (internet, equipment, knowledge on how to use)*" (Dubai, P), "*good quality of recording (video and audio)*" (Dubai, V) and ideally with "*360 tours because they provide greater viewing*" (Qatar, V).

The immersiveness of a system was connected to the quality of the system, wherein high-quality systems could leverage superior technology to create more immersive systems. Such features could include virtual and augmented reality technology "*…because of the new and advanced technology, you know we have AR, VR technologies. This can immerse you more into the trip, or wherever you're going…*"(Qatar, P), as well as "*immersive headsets*" (Dubai, P&V). Participants also proposed more engaging experiences around the virtual tours, such as facilitating *mini games* in the tours, allowing for *questions*, and facilitating *interactions with staff* (Dubai, V). Students suggested that "*The experience that you get from a real-life experience does make it valuable*" (Netherlands, P&V) and therefore immersive system that created a realistic experience were felt to provide the best learning experience.

Socialisation & Networking

A big advantage of physical tours was the ability to socialise with co-travellers and network with industry professionals providing the tours/at the site "*Field trips provided us with the opportunity to network with industry. This could help with our assessments and with later employment*" (Dubai, P). In fact, for some students, it was the opportunity to travel and socialise with their peers that encouraged them to participate in the field trips "*I also went because my classmates went with me and that makes it fun. Of course, you have your visits and that makes it fun when you are together…*" (Netherlands, P&V). Students explained that virtual tours are a poor substitute in this regard.

Overall findings

Participants with experience of virtual tours saw some future possibilities. However, participants generally felt that virtual tours could not replace physical ones. While the 'content' of the tour was possible to recreate virtually, the additional experiences, emotions, and intangible features of the tour could not be replicated virtually or were significantly sub-adequate. There are several noteworthy advantages of virtual tours; the ability to access the inaccessible, the ability to visit several vastly different locations rapidly, the low(er) costs, and

the ability to replay the tour or access it at flexible and variable times. However, emphasis should be made on the immersiveness of the tour and system, and the provision of networking or socialisation elements within or surrounding the tour.

No noticeable differences arose between the different institutions. Few notable differences arose between the different focus groups, based on their participation in Physical, Virtual, or Physical and VFTs. System quality naturally related more to virtual tours. However, participants from all focus groups provided similar comments and concerns regarding the quality and immersiveness of the system. In terms of socialisation and networking, all groups appreciated the value and importance of socialising with their fellow travellers and networking with industry representatives. However, it was felt by all participants that physical field trips were superior in this light and VFTs did not yet have a suitable alternative. The theme with the most noticeable differences between the focus groups was in terms of the field trip organisation. Participants in the physical field trip focus groups seemed to emphasise the trustworthiness of the sites they visited, and the aesthetics of the field trips. Those who had experiences of VFTs felt the need to promote interest during the field trips, the quality of tour guides, and the better cost of the field trips. A summary of these interactions and differences is reflected in figure 1.

Figure 1 demonstrates that for virtual field trips (VFT), the degree of immersion, realism, and hardware & software quality are key assessment criteria relating to the system. Social and networking features or facilities should be provided, and have several organisation advantages or constraints, as listed. For physical field trips (PFT), the degree of participation available in the experience was a key assessment criteria for the operations of the field trip. Social and networking was already present and considered valuable, and numerous advantages, and some concerns exist as listed in figure 1.

Figure 1: Virtual Field Trips (VFT) versus Physical Field Trips (PFT)

Key Assessment Criteria / Format	System (VFT)/ Operations (PFT)	Social & Networking	Organisation		
Virtual Field Trips	Degree of Immersion Realism Hardware & Software quality	Need to develop	✓ Cost ✓ Flexible ✓ Access	✗ Application and Relevance ✗ Interest ✗ Guides ✗ Aesthetics	

Learning Quality

Satisfaction with and support for Field Trips

Physical Field Trips	Degree of participation	Present and valuable	✓ Flexible	✗ Application and Relevance
			✓ Trustworthy	
			✓ Aesthetics	

Note. Check marks (✓) indicate positive and crosses (✗) indicate negative features of respective medium

Discussion

The findings of this study supported the literature concerning the value of practical experiences in education. Students frequently referred to the value of their practical visits. Beyond the applied learning opportunities, students also referred to the change of environment as a desired benefit of physical field trips. Being able to leave the physical confines of the classroom (Patiar et al., 2021) put students in a more relaxed and entertained mindset, providing more informal and memorable learning experiences (see Moscardo, 2009). It was also possible for students to benefit from a real-world experience which would alert them to life in the real world. VFTs were unable to effectively replicate this experience. Furthermore, a chief advantage participants cited was the networking opportunities which arose from field trips. This networking covered interactions among group members, between the group and their guides, and industry practitioners. Current VFTs were a poor substitute for this learning opportunity. Well-structured and well-planned field trips, therefore, offered a more informal learning by changing the environment and offering networking opportunities. It is noticeable that these two main advantages are more informal as it is difficult for educators to design learning outcomes around such experiences. Similar observations have been made about international interactive education, such as COILs (Collaborative Online International Learning), where some of the greatest benefits have come from the informal experience of participating in the activity rather than the actual content. In these cases, students improve their skills in international collaboration and teamwork (Dutt et al., 2022; Zhang & Pearlman, 2018). While COILs were able to exploit this informal learning, VFTs were unable to. Similar findings have also been reported in virtual reality research. A lack of social experience has been found to hurt user's perception of presence at the site (Beck et al., 2019) and corresponding enjoyment at the site (Sylaiou et al., 2010). More immersive VR systems, such as fiVR, where users wear headsets in order to interact with the displays have been cited as being effective at stimulating this greater sense of presence (Beck et al., 2019). It is, therefore, possible that if more immersive systems are used that offer students the opportunities to interact more, VFTs could become more feasible. In a similar sense, the quality of the system is important. Systems with lag, poor loading speeds, or with monotonous uninspiring displays and guides fail to build this

immersion, deterring students. Such a notion was supported by some participants who explained that had more immersive technology been used, their experience would have improved.

Participants identified significant advantages of virtual tours which should be considered. In particular, participants emphasised the logistical simplicity, the improved accessibility, and the ability to replay virtual tours as much as students desired as major advantages. Logistically, virtual tours offered students the opportunity to visit unique, hard-to-reach, and possibly dangerous destinations and sites quickly, easily, and safely (Chang, 2004). Similarly, access to environmentally or culturally sensitive sites, or difficult-to-access sites is readily available through virtual reality (Patiar et al., 2021). In these instances, the appeal and uniqueness of the site could compensate for the lack of practical involvement. Moscardo's (2009) research on mindfulness provides some theoretical concepts to explain such an occurrence. Mindfulness has been described as a state in which individuals can be made to feel more aware of their surroundings resulting in greater enjoyment and learning (Moscardo, 1991, 2009). In some cases, the nature of the site or destination being visited can encourage a sense of mindfulness in visitors (Henderson, 2007). In terms of the repeatability of the tour, students described how virtual tours gave them the flexibility to conduct the tours at a place and time of their choosing and replay the tours as much as they wanted to improve their learning (Dutt, 2021; Patiar et al., 2021).

Therefore, the novelty, uniqueness, or risks associated with sites and destinations could compensate for the lack of physical involvement with virtual tours. However, if virtual tours were over-used or poorly planned, they would still be received poorly by students. One unintended outcome of virtual tour's improved accessibility has been their over-use. If field trips are too frequently applied, they lose their appeal to the students who lose interest in the trips. Furthermore, the over-use of field trips can mean that 'trips' are not as thoroughly planned as students believe they should be. It is valuable to note, however, that this sentiment was echoed for physical field trips as well.

Consequently, it is important for VFTs to leverage their key advantages and for the instructor to carefully plan to compensate for their weaknesses. That is, the improved accessibility, simpler logistics, and ability to revisit and replay tours should be harnessed and emphasised. Simultaneously, efforts should be adopted to compensate for the lack of physical interaction, the loss of networking, and the over-use of VFTs.

As classes and life in general return to 'normal', it is possible that the sensitivity to interaction with others may reduce. During the lockdowns to control the spread of COVID, the lack of social interaction could have been more noticeable and disruptive (Hu, 2022). With life having returned to normal, the limited interaction from current VFTs may be less troubling.

Furthermore, with physical field trips returning, the possibility exists to use VFTs as a supplement and not a replacement. The focus can, therefore, be on destinations or locations where students cannot access. This could impact the success and students' perceptions of VFTs.

Conclusion

This research aimed to understand how the transition from practical field trips to VFTs has impacted students' learning experiences. Through seven focus groups and one interview conducted in three different institutions, all offering international tourism and hospitality management programmes, significant insights were offered on students' perceptions of VFTs.

Field trips were consistently considered as valuable components of students' education, providing them with necessary informal and memorable education, whilst providing noteworthy insights on applied learning and networking or socialising opportunities. These values provided to students through field trips helped them learn and remember more, making them feel better prepared for the job market.

One broad outcome of the research was that the general sentiment by participants was that there is no substitute for physical field trips, largely due to the unique exposure and networking opportunities that resulted. This further supports the need for practical components in hospitality and tourism curricula. It was noted that by undertaking practical experiences during their studies, not only did students gain the requisite experience and 'real feel' for the job market, but also had the opportunity of interacting directly with industry practitioners and other stakeholders. From them the emotive elements that are normally met or experienced on the job were gained, giving students a feeling of being better prepared for industry needs. Participants, therefore felt that practical field trips offered students more long-term opportunities, particularly through networking with industry, socialising with fellow travellers, and being exposed to business and life in other destinations. These main advantages promoted more informal learning which are harder to measure through regular assessments and learning outcomes.

As with the research expounded on in the literature review, the consensus from the participants is that even though virtual learning may yet have a future within the technological dispensation currently proliferating the globe, it currently seems "cosmetic" in the value it may offer as compared to the traditional form of field trips. Many of the participants felt that VFTs still have some way to become effective tools for the fulfilment of the practical component to their studies, particularly in their efforts to promote greater immersion. VFTs, therefore, have a role to play in providing educational experiences, repeated access to sites, access to remote sites, and exposing students to new technology which is likely to impact future industry. However, these should be adopted along with physical field trips, not replacing them.

Limitations

One limitation of the study was the lack of variety of VFTs that was experienced. Mostly, participants only participated in niVR field trips using a computer screen and a mouse. The use of more immersive technology, such as fiVR headsets, could provide participants with a very different experience (Nam et al., 2022).

While the results of this study have long-term implications in terms of the designing and implementing of VFTs (see Yamada & Matsuda, 2023), it is important to consider that the data was collected during the COVID-19 pandemic and, therefore, many 'normal' social interactions were restricted, which could have made participants more sensitive to the social side of field trips.

The involvement of three different institutions helped to provide a wider variety of experiences to help develop a more robust study. However, there was a lack of consistency in participant experiences of VFTs, physical fieldtrips, and the way both were organised. These differences could have affected the participants' final perceptions of the VFTs, overall.

Future Research

Future studies should look into exploring these results through quantitative means to help provide a larger and more generalisable sample. Such an approach would also facilitate the testing of more similar field trip experiences, helping to ensure participants experience the same type of trip. Furthermore, considering the growth in available and popularity of fiVR devices, future studies could look at students' experiences of VFTs using such devices. In addition, now that the COVID pandemic is behind us, the role of VFTs to complement physical field trips could be further explored.

Implications

Practical implications

Practically, the value of physical field trips cannot be understated and should be considered in the future. When physical field trips are planned, it is important that their purpose of clearly established and communicated to students. This way, a field trip for the sake of a field trip can be avoided and students will have a better understanding concerning the value of the field trip to their future. Furthermore, clear expectations should be set for what the outcomes are of the field trip; is it purely for exposure, or are there particular observations which need to be made. If so, why? While these same issues need to be considered for VFTs, there are several important additions unique to VFTs. Efforts should be taken to provide greater opportunities to facilitate networking and socialising opportunities to support the field trip. For example, inviting industry practitioners to guide the VFTs could help to allow some form of networking to take place. In other cases, offering access to a platform which can facilitate networking and conversations after a field trip could compensate for this apparent loss. Regardless of the type of field trip, greater organisation and planning are required, along with a clear connection to intended outcomes. University collaborations could look at working together to co-create field trips and promote student co-creation. Such actions mean that individual institutes only need to thoroughly plan one or two tours but can then share this with other partners so all can benefit, following the practices of a COIL (Dutt, 2021). This would have the added value of offering students international socialisation and networking opportunities, as well as exposing students to different types of company and cultural practices (Dutt et al., 2023). By combining this with some form of student co-creation, students can be tasked with making sure the field trip is relevant to their education and future careers. This process of co-creation could, itself, be an outcome of the experience. Moreover, the value of VFTs depends on the immersiveness of the experience. The rapid development of extended reality techniques such as VR and AR is expected to lead to virtual experiences that are increasingly immersive. This makes VFTs a promising tool in tourism education. Further developments of the metaverse could offer potential solutions here, facilitating VFTs, with the possibility to network with other participants and key industry players (Buhalis et al., 2023).

With support from further research, different styles of delivering VFTs could be trialled, where students are physically in the same location e.g. a classroom, and participate in a field trip together. Such an action could help to control for the loss of interaction and networking that could occur using field trips, whilst allowing students to benefit from the costs-saving and

accessibility benefits of VFTs . Furthermore, enhancements in AR could be considered in terms of their impact upon physical field trips. More powerful and integrated AR could allow students to participate in physical field trips and still benefit from the virtual features of e.g. recording the trip or customising information delivery. Such actions may also allow students who could not travel to be virtually present through watching a live or recorded experience from their fellow students. Such suggestions would require further research and trialling to explore their impact upon learning and acceptance by students.

Theoretical implications

Theoretically, this research has added much insight to the application of virtual experiences in education and students' learning experiences. Future research should look at testing the generalisability of these findings through further quantitative research involving more students and more institutes.

In a similar approach to the last practical implication, future research could look at experimenting with different types of virtual field trips; led by industry partners, students physically present in a single room during a VFT, and COIL-like field trips, to explore which structure of VFT is most liked by and beneficial to students.

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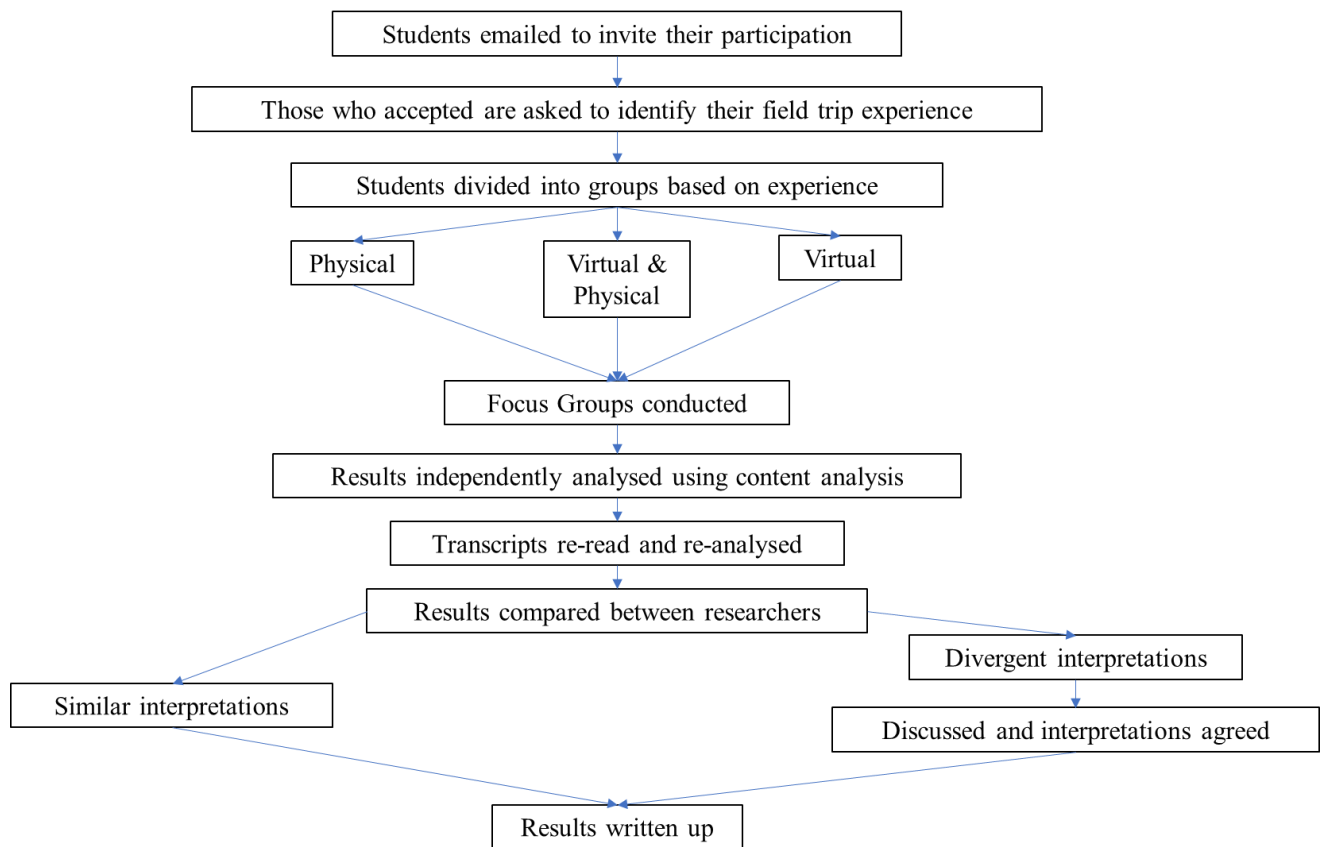
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Appendix A: Focus Group questions

1. Based on your experiences, how has the COVID-19 pandemic affected your educational experiences?
2. How is your educational experience now different from pre-COVID? What aspects do you prefer/dislike?
3. What do you like/dislike about using field trips in your courses?
4. What kind of field trips have you participated in? What do you like/dislike about this type of field trip?
5. How can field trips be made more valuable in the future?
6. What are your thoughts on virtual field trips, and what do you think is necessary to make them part of your courses?

Appendix B

Students emailed to invite their participation

Those who accepted are asked to identify their field trip experience

Students divided into groups based on experience

Physical

Virtual & Physical

Virtual

Focus Groups conducted

Results independently analysed using content analysis

Transcripts re-read and re-analysed

Results compared between researchers

Divergent interpretations

Similar interpretations

Discussed and interpretations agreed

Results written up

Appendix C: Themes and Sub-themes

First order Theme	Second order theme	Third order theme
Learning	Learning	-
	Learning Preferences	-
	Learning Quality	Relevance
Organisation	Access	-
	Aesthetics	-
	Application	-
	Interest	-
	Flexibility	-
	Cost	-
	Environment	-
	Experiences	-
	Facilities	-
	Planning	Guides
		Itinerary
		Logistics
		Cost
		Method of touring
		Group size
		Trust
		Outcome
System	System Quality	-
	Realistic/Immersive	-
Social & Networking	Networking	-
	Socialising	-