

# The Covid-19 Pandemic - Experiences and Expectations About Attending International Seminars and Conferences Among Teacher Educators

**Cornelia Brodahl**

**Ingebjørg Aarek**

**Anne Selvik Ask**

*University of Agder, Norway*

## **Abstract**

During the Covid-19 pandemic, several international physical face-to-face conferences have been cancelled, and often substituted by online events. This situation may have led to different experiences among teacher educators and influenced their considerations on whether to travel to future conferences. The purpose of this study is to understand what factors are affecting teacher educators' willingness to attend in-person or online conferences in the future. This study reports findings from an online questionnaire given to a strategic selection of respondents. All are teacher educators at universities and university colleges in Nordic countries, researching, publishing in international journals, and attending teacher education-related Nordic and international seminars and conferences. The qualitative data from the questionnaire are analyzed using a content analysis approach. The analysis revealed the university teacher educators' goals for attending and how missing conferences during the pandemic influenced their professional situation. Considerations about attending in-person or online conferences in the future are presented.

**Keywords:** academic conferences, Covid-19, experiences, expectations, teacher educators

## **Introduction**

The pandemic has changed the academic world. The circumstances of the pandemic situation have resulted in cancelled or postponed conferences, and conferences moved online. Teacher educators (TEs) at universities and university colleges may have had different experiences in this situation, and it

may have influenced their thinking about future seminars and conferences. While the pandemic continues in many parts of the world, the Nordic countries, Denmark, Finland, Iceland, Norway and Sweden, are experiencing lifting of social distance rules and travel restrictions. Therefore, it is time for reflection on the experiences and rethinking how to organize future academic conferences. The purpose of this study is to explore Nordic TEs' experiences and expectations about attending in-person and online international academic conferences in the aftermath of the pandemic and to understand what factors are affecting their willingness to participate in the future. Respondents to our questionnaire come from Denmark, Finland, Norway, and Sweden and have participated in international seminars and conferences (ISC) related to teacher education.

This study draws on a questionnaire given to a strategic selection of respondents. Using open-ended questions, we asked the respondents about their experiences during the Covid-19 pandemic, how cancelled ISCs influenced their work and how they managed the lack of ISCs exchanges. They were also asked to comment in general about their main goals in attending ISCs. More specifically, we asked them about their experiences from in-person and online ISCs, on pros and cons, and, in turn, to elaborate on what they liked and did not like about attending physically and online. Finally, we asked about their expectations about the ISCs they would like to participate in the future, and issues that would influence their intentions to attend.

Based on the purpose of the study, the following research questions emerged:

1. What are TEs' goals in attending ISCs?
2. How did cancelled or postponed conferences during the Covid-19 pandemic influence TEs' work?
3. What are TEs' experiences with ISCs moved online during the pandemic versus in-person ISCs before the pandemic?
4. What are TEs considering and expecting about attending in-person or online ISCs in the future?

### **Conceptual considerations**

An academic conference is a conference for researchers. Academic conferences are important to disseminate research, stay connected with others in their field, get up to date with recent research, and the most current research projects (Buddie, 2016). At an academic conference researchers get an opportunity to present their work, discuss and interact with other researchers and learn about their work (McCarthy et al., 2004). Conferences create time and space for people with common interests to meet in the pursuit of professional, personal, and social goals. Conferences are more appealing when the attendees and the presenters learn from each other.

Thus, many conferences offer a variety of sub-contexts for different kinds [of] interactions, including formal presentations such as keynotes, papers and panels; informal presentations such

as may occur around demonstrations or posters; and the more casual exchanges that typically take place during breaks and receptions (McCarthy et al., 2004, p. 39).

Academic conferences come in a wide range of organization and sizes. Some are called seminars. Academic seminars are often theme- or subject-specific and bring together smaller groups for more focused research talk in recurring meetings in which everyone present is requested to participate. Throughout our study, we identify these international academic seminars and conferences as “ISCs.”

Academic conferences can be held in-person (also referred to as face-to-face or in-real-life) and online (also referred to as virtual or digital), or in an online/in-person hybrid format, with at least one group attending in-person, and participants connecting online with other participants. Because of the pandemic, conference organizers of in-person conferences were faced with three choices: to cancel the conference, to postpone, or to use online solutions.

Seidenberg et al. (2021) attempted to understand how the new reality of social distancing and limited international travel affected academic conferences. When physical gatherings are not possible, online conferences provide a learning space for researchers. Moving online was an alternative to cancelling or postponing conferences. Researchers were able to present their knowledge and discuss findings with colleagues in their fields without meeting in-person. That enhanced participants’ chances of getting a paper published in the post-conference journal or proceedings. In-person conferences/seminars are known as platforms for networking and learning with a focus on social interaction and exchange. With the Covid-19 outbreak, researchers were given an opportunity to investigate how social distancing and limited international travel affected academic conferences.

Sá et al. (2019) compared online and in-person academic conferences and found gaps between in-person and online conference format. They distinguished positive and negative factors for each of the formats. Typical advantages of the in-person format are the full immersion experience without distraction from work-related matters or home routines, the lively and friendly face-to-face conversations, and time-zones not being an issue. Some advantages of the virtual format are the easy interaction and convenience to overcome challenges of geographical and temporal barriers, budget, and travel restrictions, and making it possible for academics all over the world to participate regardless of gender, ethnicity, and social class. As there are benefits of both online and in-person conferences, a hybrid between the best features of the two types of conferences continues to gain increasing relevance and support from the academic community.

Kordts-Freudinger et al. (2017) refer to a traditional model of sessions that are well-established in a “talk-discussion-talk-discussion” format (p. 29). Wang (2020) exemplifies this format with workshops, forums, roundtables, and debates, implemented with formal occasions for social activities, such as welcome reception, opening and closing ceremonies, lunch breaks and gala dinners. Kordts-Freudinger et al. (2017) demonstrate professional education, networking, and social interaction and exchange to be major reasons for attending academic conferences. They found a high interactive format during the conferences affect the participants’ goal fulfillment, particularly their education and their

networking goals. Other researchers stress the significance of networking opportunities at conferences (e.g., Yoo & Chon, 2008). Referring to Pradhan (2014), Wang (2020) considered networking to be a kind of learning where participants interact and share information and thereby contribute to knowledge creation and transmission. Thus, Wang envisions that the foremost goal of conference participants is to have educational benefits in general.

Prior to the pandemic, few academic conferences were held only online, and the experience with and the knowledge about online conferences were limited (e.g., Sá, 2019; Seidenberg et al., 2021). Raby and Madden (2021a) summarized the behavior of participants at an online academic conference and found that virtual conferences do not provide the same opportunities as in-person conferences. They concluded that providing effective communication and networking between researchers and stakeholders is needed to increase delegate engagement and enthusiasm. In their research, Kords-Freudinger et al. (2017) confirmed the fundamental importance of social exchange at an academic conference to be for the fulfillment of the participants' learning goals, including the professional education taking place. To change the culture of all conferences to become more participatory and interactive, they suggest empowering participants through small groups and in participant-driven sessions, to have more creative collaboration during conferences, such as including models like BarCamps, Open Space and World Café.

Investigating the decision to travel to a destination and participate in a specific conference has also been done before the Covid-19 pandemic. For example, Yoo and Chon (2008) found five underlying dimensions in the decision-making process of a conference attendance: destination stimuli, professional and social networking opportunities, educational opportunities, safety and health situation, and travel ability. Raby and Madden (2021b) considered decisions to attend in-person conferences to be based on the cost, accessibility, and safety of the event. Academics may be unable to overcome some of these factors during the pandemic. In addition, the carbon footprint and environmental costs of conference travel are increasingly becoming factors affecting decisions to attend a conference. When considering the three key areas associated with the decision-making process of conference attendance: 1) conference costs and registration fees, 2) social costs and opportunities, and 3) the environmental impact then their research suggests “strong evidence that online conferences can reduce barriers and aid an inclusive, environmentally friendly, and cheaper alternative to in-person conferences” (Raby & Madden, 2021b, p. 3653).

## **Method**

The purpose of this mainly qualitative study is to investigate TEs' experiences and expectations about attending in-person and online ISCs, and to obtain an understanding of what factors are affecting their willingness to attend ISCs in the future. The questionnaire was completed in March 2022, two years into the Covid-19 pandemic. The following describes procedures used for collecting and analyzing data.

## ***Respondents***

Respondents are teacher educators (TEs) from universities and university colleges in the Nordic countries who are doing research, publishing in international journals, and attending teacher education related Nordic and international seminars and conferences. We contacted colleagues in four Nordic countries from four subject areas and asked them to suggest possible participants. An invitation was sent to 50 possible respondents to participate in the study. Of those, 30 gave their consent and answered an online questionnaire. The sampled respondents, 7 males and 23 females, were TEs and researchers in one of the following subjects: Pedagogics (9), Mathematics (12), Language (4) and Home-Economics (5). The respondents were from Denmark (2), Sweden (6), Norway (12) and Finland (10). The participants were asked to indicate their age group (20–39, 40–59, 60 or over). The breakdown consisted of 2 (7%) under the age of 40, 24 (80%) between 40 and 60, and 4 (13%) were 60 and over.

## ***Data collection***

The study was approved by Norwegian Centre for Research Data (NSD Reference No: 360053), and participant consent was obtained electronically. Data were collected by using an online-based questionnaire taking approximately 30-45 minutes to answer. A reminder was sent out if an answer had not been received within a reasonable time which was a week to 10 days. SurveyXact was used for creating the online questionnaire and data collection. The results of queries and reports were exported to MS Word for further formatting, reading, and analysis. The questionnaire was to be completed in a Scandinavian language or in English (according to the respondents' preferences).

The main part of the questionnaire consisted of 15 open-ended questions. The respondents were asked to think about their participation in ISCs, how canceled ISCs influenced their work, and how they managed the lack of ISCs exchange during the pandemic. They were requested to elaborate about their main goals in attending ISCs. Furthermore, they were prompted to think about and elaborate the specter of their experiences from in-person and online conferences and asked what they liked and what they did not like about attending ISCs, both when it comes to ISCs in person and ISCs moved online during the Covid-19 pandemic. Then questions were addressed about the ISCs they would like to attend in the future such as how they think academic needs, career plans, personal considerations, policies, and rules will influence their intentions to attend ISCs. Finally, the respondents were asked what they think about attending in-person versus online ISCs in the future. In addition, the questionnaire contained multiple-choice questions to check respondents' age group, their average ISC attendance before and during the pandemic, and their intentions to attend future in-person and/or online ISCs.

## ***Analysis***

Based upon the respondents' replies to the open-ended questions in our questionnaire, we chose a qualitative content analysis strategy (Bryman, 2012) with a focus on understanding teacher educators' experiences and expectations. We started by searching-out underlying themes in the textual data

material. First, we developed a list of themes through a step-by-step process by adding themes as we identified them in the teacher educators' responses. We then labeled sections of text concerning themes of interest with a code or combination of codes. Through reading and rereading, in an iterative process of using inductive and deductive approaches, we compared and aligned the codes to improve validity. We ended up sorting sections of text into core categories and subcategories according to labels given. The three core categories were goal, experience, and expectation. Then we used the developed coding system to do one last tagging together. We also collected interesting quotations from the respondents' answers and presented them in qualitative tables, one table for each core category. One author translated replies written in Danish, Norwegian or Swedish into English verbatim and without influencing content. The quantitative data from multiple-choice questions in the questionnaire were organized and investigated, and quantifications of respondents' intentions to attend future in-person and online ISCs extracted. In terms of ethics, the filled-in questionnaires were anonymized prior to analysis.

## **Limitations**

The limitations of the work are concerned with four issues: sampling, reliability, validity, and timing of the conferences in relation to the pandemic. First, the number of respondents in the study was limited and recruited from four different subject areas. We used our network in four Nordic countries to get suggestions for possible informants. While this does not invalidate the results, it rather invites to further confirm or question them by additional investigations. Second, reliability is enhanced by a detailed description of population characteristics and research methodology, allowing for the replication of the study. Third, the process of deriving themes and post-coding the written replies to open-ended questions, can cause variability (Bryman, 2012). However, having three researchers independently perform, then compare and align, was used to enhance the degree of measurement validity. Fourth, the respondents did not largely report the features of the online conferences attended. When the pandemic hit, some conference organizers moved online without any adjustments. As time passed, the conference organizers may have designed conferences differently. Different features may have influenced the answers in the study.

## **Results**

We will present the results in subsections, one for each of the four research questions concerning TE's attending ISCs. The questions relate to goals, the perceived influence of missing out during the pandemic, experiences with conferences during the pandemic, and expectations for attending in the future.

### ***TEs' goals in attending ISCs***

Our analysis of the open-ended question on the respondents' main goals in attending ISCs, results in six categories: 1) Learning during ISC; 2) Overviewing the research field; 3) Building

relationship and network; 4)Listening, presenting, discussing; 5)Advancing in career; and 6)Others (see Table 1). The four most common themes mentioned were, in descending order: strengthen/build networks; present paper/draft and get feedback; get updated about ongoing research; and develop knowledge in own field.

**Table 1**

*Why TE Chose to Attend ISC*

Goal	Example Quote
Learning during ISC	
Expand own perspective	“[To get] the opportunity to see what the ‘bigshots’ in the field are working on”
Develop knowledge in own field	“[For] exchange and development of new knowledge and experience, both didactical and subject related”
Get new ideas and impulses	“[For] new impulses about what is happening in other research environments”. “[For] tips and advice”.
Overviewing the research field	
Get updated about ongoing research	“Conferences [are ...] an excellent way of keeping up to date with what is going on in the field and learning more about related research areas”
Grow as a researcher	“To exchange scientific ideas, to grow as a researcher”. “[For] the opportunity to see what the "bigshots" in the field are working on.
Develop research project ideas	“[To look for] new projects to engage in”
Building relationship and network	
Socialize with participants	“To meet friends/colleagues from other universities”. “To catch up with acquaintances and meet new interesting people”.
Strengthen/build networks	“For me networking and discussing with people who share similar research interests are very central goals”. “[To] build networks, [... and] broaden perspectives”.
Get inspiration	“To get inspiration for your own work”. “To get inspiration for new research projects”.
Plan cooperation	“Meet potential new collaborators”. “[D]iscuss possibilities for new projects with both old and new friends”.
Listening, presenting, discussing	
Present paper/draft and get feedback	“[One main goal is] publication of own research” “[For] the opportunity to get initiated feedback on my paper”
Listen to presentations	“[For] to listen to interesting keynotes”
Advancing in career	
Gain publishing credits	“[Presenting is a crucial step in] publication of own research”
Gain points for dissemination	“[Dissemination] in ISCs will count for promotion and tenure
Other goals	“Get to experience another culture”. “Love travelling to new places”

*Note.*  $N = 30$ .

### ***Perceived influence of missing ISCs on TE's work during the Covid-19 pandemic***

In response to the open-ended questions on how the lack of in-person ISCs during the pandemic influenced their academic work, there were many unique answers. Some pointed out that cancelled ISCs had some or minor effect on their academic work and indicated perceived losses; to cite some of them: "Cancelled [ISCs] have led me to spend time on other research assignments and research collaborations."; "I used the opportunity to read up more on already published work."; "Cancelled [ISCs] decreased my creativity and interest for new research projects."; "It was clearly a loss, both to meet like-minded people and exchange knowledge."; "Cancelled conferences led to less exchange with other researchers." However, respondents with solid research networks coped with the missing ISCs and their research productivity by nurturing their collaboration online: "The collaboration transformed completely online, and we created new forms for meetings and writings online."; "I didn't suffer anyhow because the established networks are international / national, and they worked well also online." On the other end of the scale, there were respondents who perceived more serious effects of cancelled and postponed ISCs for their academic work: "[Missing ISCs] made it more difficult to develop [joint] research ideas"; "[Missing ISCs] halted a lot of research"; "I missed the opportunity to prepare, share and follow up on projects. Far less international contacts."; "[The lack of ISCs exchange] put work on hold".

As the pandemic subsided, some participated in international seminars that had a hybrid variant where some parts are presented in-person, while others participated in the cloud-based video conferencing platforms. The questionnaire did not address hybrid formats of ISCs specifically. Nevertheless, three respondents experienced hybrid ISCs, participating online, using the videoconferencing software Zoom. Without further elaborating on their experience, two of them concluded that their online participation went respectively well and very well. One of them pointed out that it is crucial that the sound is good. The third one found it "Typically very hard to achieve genuine interaction. This is particularly true for hybrid events, which in my experience rarely work well at all".

There certainly was a development over the time span, as one of the respondents expressed: "Some [ISCs] were postponed – perhaps mainly at the beginning of the pandemic. Eventually, most [ISCs] were done digitally." Four respondents did not take advantage of the moved online ISCs, partly based on low expectations. On the contrary, others accepted the online offer and went all in for it.

### ***Experiences with in-person ISCs versus ISCs moved online during the pandemic***

According to multiple-choice answers, three of the 30 respondents stated to have attended ISCs in-person in another Nordic country during the two years with pandemic. Only one attended an ISC in-person outside the Nordic countries. It is noteworthy that only one respondent experienced an ISC online before the Covid-19 pandemic, while only four respondents did not attend any ISC online during the pandemic. See Table 2 for the remaining 26 respondents' experiences with in-person versus moved online ISCs during the pandemic.

**Table 2***Experiences with in-person ISCs versus moved online ISCs during the Covid-19 pandemic*

Experience	Example Quote	
	In-person ISC	Online ISC
<b>Professional development</b>		
Listening during formal sessions	Presentations are more engaging when attending in-person.	It goes straight to the point. OK for a few hours.
Knowledge sharing and learning	Interacting about research is easier. Far better professional opportunities, more time to engage in discussions about the state of the subject area and development opportunities.	Some ISCs were a poor substitute for the real thing. To some extent online ISCs filled the lack of coming together.
Getting an overview on research field	An excellent way of keeping up to date. Giving and getting feedback.	Wonderful opportunities to easily just pick up the most important.
Discussing topics of shared interest	Meet and have conversations about common research interests. Seeing other schools and universities	Isolated with own thoughts. Discussions may work when participants know each other's research.
<b>Relationships and networking</b>		
Informal socializing	Coming together is the best part. Direct contact. Communication and atmosphere are authentic. Get unplanned inspiration for own work.	Difficult to connect with people. The social aspects all but disappear. The silence when no one is talking.
Personal contact/random talk	Opportunity to talk in the breaks, get to know people. Opportunity to understand the conditions academics have for their work, and cultural differences.	Experiencing the distance. Hard to achieve genuine interaction. Frustrating not being able to meet your friends/colleagues in the flesh, but only as small squares on the screen.
Fostering relationships	Meet new people: the chat goes much livelier (behind the scenes). Got to know colleagues elsewhere. Built important relationships.	Difficult to get to know new people. Interaction may work, e.g., with people one already knows or in small groups.
Contacting potential new collaborator	... in more informal settings. Easier to take initiative. See the degree of commitment, essential for development work.	Less opportunities, although it also happened online. Getting to know each other, the base for collaboration, was diminished.
Networking	Informal opportunities for networking occur.	Overall less impulses. Interaction and collaboration suffer.
<b>Venue</b>		
Travel	Travelling to a venue brings focus as everyday work is put aside. You are immersed in the event and more focused, attend more sessions.	Less transportation makes sense for the environment, and a smaller climate footprint. Family friendly.
Location	Change of scenery is refreshing. Get to know another location.	Easy to attend online and possible on short notice. Convenient.
Comfort	Travel was tiring.	Bad for mind and body: Tiring with long screen time.
<b>Accessibility</b>		
Time	Travelling and travel preparation take time and energy.	Effective and concentrated: When it's done, it's done.
Cost	More expensive.	Online keeps cost lower.
Barrier	Excluding if some need visa.	Bad sound. Technical challenges.

*Note.* The quotes are drawn from TEs having attended at least one moved online ISC ( $n = 26$ ). Quotes are abbreviated.

Our analysis of the open-ended questions on the respondents' experiences in attending in-person ISCs and moved online ISC, is done along four categories: professional development, relationships and networking, venue, and accessibility (see Table 2). Experiences, classified as being "positive", "negative" or "neutral", occurred in both in-person ISCs and moved online ISCs.

Most respondents highlighted their experiences with in-person ISCs, as being positive, when related to the two categories professional development, and relationships and networking. Most of their experiences related to the two categories of venue and accessibility, the participants were basically neutral/negative, with one exception. Travelling to ISCs was experienced as both positive and negative. Negative experiences were mostly related to time aspects, e.g., "travelling might of course be time-consuming [... and] tiring" and "applying for grants and filling out required paperwork [...] takes up a lot of time." Other negative experiences related to environmental consequences or climate issues, "bad conscience for polluting our earth", "feeling guilty for climate footprints". Finally, barriers as "need visa" for in-person ISC and "bad sound" and "technical challenges" for online ISC, were shown as being excluding. On the positive side, travelling was experienced to add positively to good outcomes of the in-person ISCs, e.g. "The special kind of focus that travelling to a conference brings. Everyday work is put aside" and "also, the fact that you travel somewhere and are somehow immersed in the event means that you are more focused and attend more sessions."

Considering online conferences, time and time efficiency were experienced as a positive by most respondents, as well as issues of the categories' venue and accessibility. Negative experiences were mostly related to the category relationships and networking, especially to "not coming together". The following quote points to several experiences and some consequences:

Despite good intentions, I did not participate as actively online or discussed with other conference participants compared to the conferences where I was physically present. Did not network to the same extent as when physically participating in a conference. Participating digitally provided the opportunity to participate in more conferences [...]. I noticed that I could not keep up the interest and motivation when I followed digitally for a whole day. And it became far too easy to answer e-mails and carry out other everyday work tasks instead of just focusing on the conference presentations.

However, a few respondents mentioned exclusively positive experiences with online ISCs and highlighted their efficiency, e.g., concluding: "I actually like attending online", "I did not come across any disadvantages", and "Convenient and quick way to gain specific knowledge".

### *Expectations for attending different types of ISCs in the future*

Two years after the pandemic started in the Nordic countries, multiple-choice answers in the questionnaire showed that all respondents imagined themselves participating at in-person ISCs in the future. Out of the 26 respondents who did experience online ISCs during the pandemic, eight respondents (30.8%) did not intend to participate in online ISCs in the future, while 18 respondents (69.2%) did intend to attend at both in-person and online ISCs (see Table 3).

**Table 3**

#### *What TEs Choose to Attend in Future – Expectations and Considerations*

Expectation	<i>n</i>	Example Quote
<b>In-person and online</b>		
Not reserved	15	<p>“I appreciate having choices so that there can be a balance between the positives and negatives, or rather making use of the specific opportunities each model bring.”</p> <p>“I commit to both. It is [...] perfectly ok to attend online. I do not think I want to fly as much as before. Then digital meetings come in as a replacement. I also see that digital meetings make it easier for many to participate.”</p> <p>“Both are great! Online is so easy but physical is better in bonding with people.”</p> <p>“A combination of both is good.”</p>
Reserved in-person	1	<p>“I strongly prefer physical to online conferences. At the same time, I can see how physical conferences, [...] when flying is involved in getting there, can be problematic in the current situation, where everyone needs to reduce their carbon footprint. In that case, online conferences could serve as a (poor) substitute, I guess.”</p>
Reserved online	2	<p>“I prefer physical conferences, but short online seminars are also valuable.”</p> <p>“if the theme is really interesting, I might consider attending online, but since I find it so tiresome, I will be hesitant to attend online”</p>
<b>In-person only</b>		
Not reserved	6	<p>“I prefer to attend physical ISCs. [...] I don't prioritize online conferences because I only get a small part of the gain compared to the physical conferences.</p>
Reserved	2	<p>“If the trips are long (1-2 days to reach the conference), I may consider participating digitally, otherwise I prefer to participate on site. Hybrid versions [...] can work well if only [a few] are on-line, while the majority are in place.”</p> <p>“e.g., do not want to leave my family in vacation-period[s].”</p>
Online only	0	

*Note.* The quotes are drawn from TEs having attended at least one moved online ISC ( $n = 26$ ).

Reserved = have reservations about attending.

In answers to open-ended questions, the respondents expressed their expectations and considerations about attending in-person versus online ISCs in future. See Table 3 for verbatim example quotes. Fifteen of the 18 respondents expecting to attend both in-person and online ISCs, did not state any reservations about attending; whereof five were explicit about not having preferences, five explicit about preferring in-person ISCs, and five again did not mention any preferences. On the other hand, the remaining three of the 18 respondents did express reservations; one was reserved about in-person ISCs with regard to climate challenges, in spite of considering online ISCs as poor substitutes, and two were reserved when it came to attend online ISCs. Regarding the eight respondents who intended only to attend in-person ISCs in future, two expected to drop in-person ISCs in certain circumstances. Finally, it is also interesting to note that none of the respondents expected to attend only online ISCs in future.

## **Discussion**

We will discuss the results in four subsections, one for each research question.

### ***1. What are TEs' goals in attending ISCs?***

The respondents mentioned several different goals for attending international seminars and conferences (ISCs), some more important than others, but this may vary from person to person. The four most common goals mentioned were, in descending order: strengthen/build networks; present paper/draft and get feedback; get updated about ongoing research; and develop knowledge in own field. This coincides with other researchers' work, e.g., Kordts-Freudinger et al. (2017) mentioned educational goals, networking goals, self-presentation goals, and multiple goals. Buddy (2016) and McCarthy (2004) confirm the goals mentioned by the survey respondents, see Table 1. Both stated that academic conferences are important for exchanging scientific ideas, staying connected to others in the field and getting acquainted with the most current research projects. McCarthy et al. (2004) add that conferences are venues for people with common interests to meet in the pursuit of professional, personal, and social goals.

### ***2. How did cancelled or postponed conferences during the Covid-19 pandemic influence TEs' work?***

Many universities make it possible for the academic staff to do research, write scientific articles and present their work at conferences. When conferences were cancelled or postponed, this influenced the academics' professional situation. In our study, the negative consequences of missing ISCs most often mentioned, included less impulses, less creativity, less opportunity for networking, less exchange with other researchers, less interest for new research projects, less article writing, as well as halting research. This is in line with Yoo & Chon (2008) who stated that networking opportunities at conferences are very important. By networking, interacting, and sharing information, participants at conferences learn and contribute to knowledge creation and transmission (Pradhan, 2014).

On the other hand, the most reported positive perceived consequences of cancelled or postponed conferences included more time for other parts of the job and family, including more time for research. Freeing time for caring duties or other academic work were also reported to be attractive, and factors for more likely to attend online conferences (Raby and Madden, 2021a).

### ***3. What are TE's experiences with ISCs moved online during the pandemic, versus in-person ISCs before the pandemic?***

Sá et al. (2019) compared online and in-person academic conferences and found advantages for both formats. Advantages for the virtual format were, e.g., easy interaction and convenience overcoming challenges of geography, budget, and travel restrictions, making it possible for academics all over the world to participate. Respondents of our research pointed out that online ISCs are more efficient as the participants can pick up the most important themes in the program and then drop out to keep up with the normal work. But it is difficult to connect with and get to know people in online ISCs. As one respondent said: "You are isolated with your own thoughts". There is a lack of informal settings online, no coffee-breaks and no mingling.

Advantages for the in-person format were, e.g., being present without distraction from work-related matters or home routines, face-to-face conversations, and no issues with time-zones (Sa et al., 2019). As seen in Table 2, most of our respondents described their experiences with in-person ISCs before Covid -19, as being positive, both related to professional development, and relationships and networking: Presentations are more engaging when attending in person and interacting and keeping up to date with research is easier. For in-person ISCs coming together is the best part, it is easy to give and receive feedback when you are in direct contact. Communication and atmosphere are more authentic, and you may get unplanned inspiration for own work.

Many respondents also point out that travelling and travel preparation take time and energy, and travelling is more expensive than attending online ISCs. Furthermore, travelling is also related to environmental consequences or climate issues. On the positive side, travelling was experienced to add a positive dimension to the good outcomes of the in-person ISCs, and an opportunity to understand other cultures and the conditions other academics have for their work.

It is easy and convenient to attend online, even at short notice. A few respondents mentioned only positive experiences with online ISCs. But on the other hand, as one respondent remarked, it is bad for mind and body and tiring with long screen time. Some respondents felt that online ISCs were a poor substitute for the real thing, but to some extent they filled the lack of coming together. This coincides with Seidenberg et al. (2021) who stated that when physical gatherings are not possible, online conferences provide a learning space for researchers. Researchers may discuss their findings with colleagues and present their work without meeting in-person, and they have a possibility to publish in the post-conference journal or proceedings.

#### **4. What are TEs considering and expecting about attending in-person or online ISCs in future?**

The results show (Table 3) that all respondents expect to participate in future conferences, and more than half of the respondents (15 of 26) had no reservations for either type of conference. As two of the respondents expressed: “I commit to both. It is [...] perfectly ok to attend online. I do not think I want to fly as much as before. Then digital meetings come in as a replacement. I also see that digital meetings make it easier for many to participate,” and “Both are great! Online is so easy but physical is better in bonding with people.” Some appreciate having choices, making use of the specific opportunities each model bring. One respondent strongly preferred in-person ISCs and considered online ISCs as an unwanted substitute; two did not want to attend online conferences but might consider attending if the theme was very interesting.

Several of the respondents expressed concern about the environmental consequences of travelling, cost, and time away from work and family. This is in line with Raby & Madden (2021b) who investigated decisions about attending in-person conferences. They found that decisions are made on the cost, accessibility, and safety of the event. They also mentioned that the carbon footprint and environmental costs of travelling are influencing the decision to attend conferences. Their research indicated that online conferences are a cheaper and an environmentally friendly alternative to in-person conferences. However, no one in our study wanted online conferences exclusively.

#### **Conclusion**

In this article we investigated experiences of teacher educators with international seminars and conferences (ISCs) before and during the pandemic and their expectations about attending in the future. The prevailing goals for attending conferences are to build networks, present papers and get feedback, develop knowledge in own field and learn about ongoing research. University teacher educators experienced advantages and disadvantages with both in-person and online conferences.

The negative consequences of missing ISCs are less impulses, creativity, opportunity for networking and exchange with other researchers, less interest for new research projects and article writing. The most reported positive perceived consequences included more time for other parts of the job and family. Online ISCs are more efficient as the participants can pick up the most important themes in the program. Most respondents described their experiences with in-person ISCs before the pandemic as being positive, both related to professional development and relationships and networking. Many respondents experienced advantages with online ISCs, especially related to professional development and the ease of attending. All respondents expect to participate in future conferences, but they appreciate being able to choose between in-person and online conferences.

Many teacher educators became acquainted with online conferences due to the Covid-19 pandemic and see advantages and disadvantages with both in-person and online conferences, but no one wanted online conferences only. Future research should continue to investigate how to create the best

online, in-person and conferences in an online/hybrid format built on the experiences gained during the pandemic.

## References

- Bryman, A. (2012). *Social research methods*. Oxford University Press.
- Buddie, A. M. (2016, September). Academic conferences 101: What they are, why go, how to present and how to pay for it all. *Psychology Student Network*.  
<https://www.apa.org/ed/precollege/psn/2016/09/academic-conferences>
- Kordts-Freudinger, R., Al-Kabbani, D., & Schaper, N. (2017). Learning and interaction at a conference. *New Horizons in Adult Education and Human Resource Development*, 29(1), 29-38.  
<https://doi.org/10.1002/nha3.20169>
- McCarthy, J. F., McDonald, D. W., Soroczak, S., Nguyen, D. H., & Rashid, A. M. (2004, November). Augmenting the social space of an academic conference. In *Proceedings of the 2004 ACM conference on Computer supported cooperative work* (pp. 39-48).  
<https://doi.org/10.1145/1031607.1031615>
- Pradhan, A. (2014). Consideration of multicultural learning in conference content and program design: A pilot study. *Journal of Convention & Event Tourism*, 15(1), 25-56.  
<https://doi.org/10.1080/15470148.2013.871211>
- Raby, C. L., & Madden, J. R. (2021a). Moving academic conferences online: Understanding patterns of delegate engagement. *Ecology and Evolution*, 11(8), 3607-3615.  
<https://doi.org/10.1002/ece3.7251>
- Raby, C. L., & Madden, J. R. (2021b). Moving academic conferences online: Aids and barriers to delegate participation. *Ecology and Evolution*, 11(8), 3646-3655.  
<https://doi.org/10.1002/ece3.7376>
- Sá, M. J., Ferreira, C. M., & Serpa, S. (2019). Virtual and face-to-face academic conferences: comparison and potentials. *Journal of Educational and Social Research*, 9(2), 35-35.  
<https://doi.org/10.2478/jesr-2019-0011>
- Seidenberg, N., Scheffel, M., Kovanovic, V., Lynch, G., & Drachsler, H. (2021). Virtual academic conferences as learning spaces: Factors associated with the perceived value of purely virtual conferences. *Journal of Computer Assisted Learning*, 37(6), 1694–1707.  
<https://doi.org/10.1111/jcal.12614>
- Yoo, J. J.-E., & Chon, K. (2008). Factors affecting convention participation decision-making: Developing a measurement scale. *Journal of travel research*, 47(1), 113-122.
- Wang, R. (2020). Examining attendance and non-attendance at association conferences: a grounded theory approach [Doctoral dissertation, University of Technology Sydney].  
<https://opus.lib.uts.edu.au/bitstream/10453/149016/2/02whole.pdf>

## **Authors**

**Cornelia Brodahl** is a professor in ICT and learning at the University of Agder with a master's degree in mathematics. She lectures in mathematics in teacher education, and her research is in teaching and learning mathematics and teaching and learning with ICT.

**Anne Selvik Ask** is a professor in food and health and the head of the Department of Nutrition and Public Health at the University of Agder. She lectures in food and health (home economics) and entrepreneurship in teacher education and has published several papers and books in the field.

**Ingebjørg Aarek** is an assistant professor emerita at the University of Agder. Her field of interest is in food and health and entrepreneurship in teacher education, and she has published several papers in the field.