Corinna Geppert[1] (Krems), Franziska Lessky[2] (Innsbruck) & Filiz Keser Aschenberger[3] (Krems)

Drawing on Student Voices to Enhance (Online) Teaching in Academic Continuing Education

Abstract

This study explores how students in academic continuing education (ACE) experienced online teaching during the COVID-19 pandemic. While there has been extensive research on how the pandemic affected teaching and learning of 'traditional students', the perspective of this particular student group has been neglected so far. Results, which are based on a mixed-methods design, including a survey (N=184) and four focus-group discussions (N=15) at one university in Austria, revealed a great variety of experiences and preferences towards (online) teaching in line with the heterogeneity of this student cohort. However, findings also reveal that characteristics, such as gender, caring responsibilities, and field of study are closely linked to the barriers and difficulties perceived while studying during the pandemic. Results emphasize the important role of educators in shaping online learning experiences and highlight the need of professionalization to meet the needs of ACE students and to enhance (online) teaching in ACE in a post-COVID-19 era.

[1] University for Continuing Education Krems; corinna.geppert@donau-uni.ac.at; ORCiD 0000-0002-0823-5766

[2] University of Innsbruck; franziska.lessky@uibk.ac.at; ORCiD 0000-0003-4075-5080

[3] University for Continuing Education Krems; filiz.keser-aschenberger@donau-uni.ac.at; 0000-0002-4661-3238

https://doi.org/10.21240/zfhe/19-2/03

Keywords

educational innovations, academic continuing education (ACE) students, mixed-methods study, professionalization, online teaching

Die Meinung der Studierenden zur Verbesserung der (Online-) Lehre in der akademischen Weiterbildung nutzen

Zusammenfassung

Diese Studie geht der Frage nach, wie Studierende in der wissenschaftlichen Weiterbildung die Online-Lehre während der COVID-19-Pandemie erlebt haben. Derzeit liegen zwar bereits umfangreiche Forschungsergebnisse darüber vor, wie die Pandemie das Lehren und Lernen an Universitäten beeinflusst hat, die Perspektive dieser Studierendengruppe wurde jedoch bisher vernachlässigt. Die vorliegende Studie basiert auf einem Mixed-Methods-Design, welches eine Umfrage (N=184) sowie vier Fokusgruppendiskussionen (N=15) an einer österreichischen Universität umfasst. Die Ergebnisse zeigen eine Vielfalt an Erfahrungen und Präferenzen hinsichtlich der (Online-)Lehre auf, welche in Verbindung mit der Heterogenität dieser Studierendengruppe gesehen werden kann. Sie verdeutlichen zudem, dass Merkmale wie Geschlecht, Betreuungspflichten und Studienfächer mit den wahrgenommenen Barrieren und Schwierigkeiten während des Studium im Zusammenhang stehen. Insgesamt zeigt sich die hohe Bedeutung der Rolle der Lehrenden in Bezug auf die Online-Lernerfahrungen der Studierenden in der wissenschaftlichen Weiterbildung. Die Studie verdeutlicht, dass eine Notwendigkeit einer fortlaufenden Professionalisierung des Lehrpersonals besteht, um den Bedürfnissen dieser Studierendengruppe gerecht zu werden und die (Online-)Lehre in der wissenschaftlichen Weiterbildung in Zukunft zu verbessern.

Schlüsselwörter

Bildungsinnovation, Akademische Weiterbildung, Mixed-Methods-Studie, Professionalisierung, E-Learning

1 Introduction

In addition to the profound and worrying changes that the COVID-19 pandemic has brought to the higher education sector and the lives of its students (e.g. increasing mental health problems, growing financial concerns, increasing social isolation), it has also accelerated educational innovation. This has partly led to new forms of teaching and learning, with new methods and tools being developed and implemented (e.g. asynchronous and synchronous teaching, new forms of online communication and group work). Online teaching has introduced a new culture of learning and teaching, with an emphasis on flexibility, technology integration and student-centered approaches. Adapting to this evolving culture is crucial for educators and learners as it shapes the future of education and the development of innovative teaching methods.

Since the start of the pandemic in 2020, extensive research has focused on how university students coped with the sudden shift to online teaching, which can be shown through meta-narrative and literature reviews, which mainly focus on the situation of 'traditional' students (e.g. Bozkurt et al., 2022; Pokhrel & Chhetri, 2021; Pausits et al., 2021; Sum & Oancea, 2022; Tang, 2023).

However, the perspective of students in academic continuing education (ACE) has been neglected so far. The main objective of this study is to shed light on this group of students and their experiences during online teaching by using empirical data to discuss how we can better meet the needs of ACE students in higher education and enhance their educational learning experiences in a post-COVID-19 era.

Illuminating the perspectives of ACE students is crucial since this student population highly differs from 'traditional' university students. ACE students can be defined as 'non-traditional learners' with a variety of educational and professional backgrounds, since they are often "students who are 25 years or older, attend part-time, are financially independent, have other major responsibilities and roles that compete with their studies (e.g. parenting, caregiving, employment and community involvement) and/or lack the standard admission requirements of a program" (Panacci,

2015, p. 2). Based on UK participation reports, St. Clair (2008) concludes that people who have worked for quite some time in an occupation prior attending higher education and have a higher socioeconomic status, are more likely to participate in "programs offered by institutions of higher education that do not serve conventional full-time undergraduate or graduate student groups" (p. 15). This may also be one of the reasons why ACE students' readiness to effectively participate in ACE offers is strongest when programs are aligned with their goals and needs (Hooß, 2014; Leow et al., 2022).

However, the complexity of these students' lives and the heterogeneity within this student population needs to be considered when aiming to enhance the online learning experiences of diverse learners in academic continuing education, especially because they have to be particularly careful with their time resources (Kahl, 2020).

2 State of Research

The COVID-19 pandemic has profoundly changed the educational landscape, with a significant shift towards online teaching and learning, forcing educational institutions to adapt quickly to new circumstances and rely on technology to ensure continuity in the delivery of education (Gouëdard et al., 2020). During this period, there have been changes in online education with implications for educators and students. One is the acceleration of digital transformation, which means that the adoption of digital tools and technologies in education has had to happen in a short period of time. Institutions around the world quickly adopted learning management systems (LMS), video conferencing platforms and collaboration tools to facilitate online teaching. This was critical to maintaining educational continuity (García-Morales et al., 2021; Nurhas et al., 2022).

There was also an increase in the use of synchronous (real-time interaction) and asynchronous (self-paced) learning methods, which affected students' experience of their learning environment. While synchronous sessions allowed for live interaction

and engagement, asynchronous approaches provided flexibility for students. Nevertheless, higher education lecturers, students and administrators faced a number of challenges during the pandemic. For example, Korkmaz and Toraman (2020) identified a lack of lecturer-student interaction, a lack of knowledge about how to assess students in online settings, and difficulties in providing feedback to students and addressing their individual needs as challenges for lecturers.

Based on a systematic review Pausits et al. (2021) stated that the pandemic has underscored the importance of institutional peer learning, the expertise of professional networks, the contributions of service facilities, and the role of collegial collaboration in institutions. Ruptures have caused decreases in the social and academic integration of students and in possibilities to network (Hamilton & Gross, 2021). Resch et al. (2022) found that the level of perceived support during home learning was positively associated with the levels of social and academic integration, which was also highlighted in the systematic review by Cramarenco et al. (2023). Academic and social integration were also significantly associated with student satisfaction (e.g. Boyd et al., 2022; Haverila et al., 2020; Nikou & Maslov, 2023; Xu & Xue, 2023).

The pandemic accelerated existing challenges and inequalities in online learning, such as the digital divide, access to technology and different levels of digital literacy (Coleman, 2021), which are linked to socioeconomic factors. Recent research has shown that the impact of the pandemic on students has varied between different groups of students, for example, showing that those living in rural areas have benefited from online teaching, while others have seen their position deteriorate further (Ebner et al., 2020; Guppy et al., 2022; Hamilton & Gross, 2021; Huber, 2021; Pokhrel & Chhetri, 2021). Scholars emphasize that inequalities in digital access include differences in the ownership and accessibility of different technological devices and the internet. Inequalities extend to differences in skills and comfort levels in using technological tools and different online resources for learning (Coleman, 2021; Lai & Widmar, 2021; Litchfield, Shukla & Greenfield, 2021; Milana et al., 2021). Ulzheimer and colleagues (2021) concluded that barriers to digital teaching and learning also arise for people who are familiar with the higher education environment, for example due to inadequate technical equipment or a lack of digital

skills. Schmölz et al. (2020) also mention inequalities in the results of using digital media and in the support of using digital media, which created problems among students.

Based on a systematic review of the literature, Sum and Oancea (2022) concluded that numerous factors interact to shape the use of technology by academics in emergency remote teaching in higher education contexts, such as unreliable internet connection, lack of equipment and facilities, inadequate infrastructure or financial conditions, affordability, responsibilities and home environment. Pham et al. (2021) found that students' online learning outcomes are influenced by learner characteristics such as the ability to adapt to change and the perceived usefulness of an online environment to save time and money, appropriate course content, appropriate course design, ease of use of software, and instructor capacity in terms of professional competence to deal with online teaching.

To summarize, the presented literature focuses mainly on the impact of COVID-19 on the experiences of either traditional university students, part-time adult undergraduates (e.g. Fiorini et al., 2022) or on students in adult education outside of university (e.g. James & Thériault, 2020; Stanistreet et al., 2020; Waller et al., 2020). Such research was predominantly conducted during the COVID-19 pandemic and showed quite consistent results at least for traditional learners.

However, research on students in ACE is still scarce. We found only a few studies that explicitly addressed the situation of ACE students during and shortly after the pandemic, such as the study by Luo (2022). The author highlighted that ACE lecturers struggled with the adaptation of teaching, as not all content was suitable for online teaching (medical laboratories, hands-on learning, etc.), and with the control of teaching in online settings. In addition, Keser Aschenberger et al. (2023) addressed the home learning environment in their study on ACE students, which found that students in ACE were well equipped; the majority of the students in their study reported that "their requirements regarding a comfortable, quiet and distraction-free learning environment were met" (p. 121). Nevertheless, gender differences occurred when it came to the use of learning environments with men being more likely to

learn in a dedicated space, while women used spaces that also served other purposes such as the kitchen (Keser Aschenberger et al., 2023).

We aim to address this gap by focusing on the time after the pandemic and by asking the following research questions: (1) How did students in ACE experience online teaching during the COVID-19 pandemic?; (2) How is their perception related to sociodemographic characteristics?; (3) What are possible ways to improve teaching and learning in a post-COVID-19 environment?

3 Methods and sample

We investigate our research questions by applying an explanatory mixed-methods research design combining a quantitative online survey that was distributed among students at the University for Continuing Education Krems (Austria) in June 2022 (N=184), and five qualitative focus-group discussions with 15 participants between September 2022 and January 2023.

The quantitative online survey covered topics such as the reasons for studying in ACE (in general and during the COVID-19 pandemic), students' perceptions of online teaching and their wellbeing in the year prior to the survey. Of the 184 students, the majority of our participants were women (60.8%). About half of the participants had no caring responsibilities towards children or relatives (65.5%). 78.1% were born in Austria and 90.2% were studying in a Master's program at the time of data collection (1.8% PhD students, 3.7% academic experts, 4.3% CP Certified Program). 61.8% were employed full-time, 21.8% were employed part-time, 11.5% were self-employed and 1.2% were looking for a job.

In the five qualitative focus-group discussions a total of 15 students were interviewed. Seven participants identified as women and eight as men. Four students had not yet earned a higher education degree, seven were first-generation students, four were self-employed and seven had caring responsibilities. The discussions lasted between 45 and 90 minutes. Participants were asked about their perception on the

changes associated with the COVID-19 pandemic and how the university, study program heads and the lecturers dealt with this situation from the perspective of the students. The discussions were recorded and transcribed verbatim following Lueger's transcription guidelines (2010, p. 259) using partly the automatic transcription feature in MS Word.

We analyzed the quantitative data by applying descriptive statistics and regression analysis using the statistical software SPSS. The qualitative data was interpreted both within interpretation sessions of the researcher's group and by the researchers separately. The data material was pre-coded using the computer program MAXQDA, referring to coding procedures known as 'Initial Coding' (Saldaña, 2013) and 'Open Coding' (Charmaz, 2006). Subsequently, specific passages were selected for in-depth interpretation. Memos were created both during the coding process and after each interpretation session, serving as a basis for writing up the results.

4 Results

4.1 Students' experiences of online teaching during the COVID-19 pandemic

To answer the first research question "How did students in ACE experience online teaching during the COVID-19 pandemic?", we applied descriptive statistics to explore perceived changes and preferences towards online teaching. Furthermore, we present findings from the focus groups highlighting positive experiences as well as perceived challenges with online teaching during the pandemic.

We asked students about the changes they had experienced in their study programme as a result of the COVID-19 pandemic. 93.3% responded that planned face-to-face courses were held as online courses, 40.2% agreed that planned face-to-face meetings were held using a video conferencing tool or by telephone and a third (34.1%) said that planned face-to-face exams were held as online exams. Course dates or exams were postponed (31.1% of respondents agreed) and planned face-to-face

courses were replaced by guided self-study (e.g. by providing digital learning resources such as scripts, learning videos, etc.) (15.9% of respondents agreed).

In addition to these changes, we were interested in preferences for teaching methods. We asked students to rate their preferences from very low to very high.

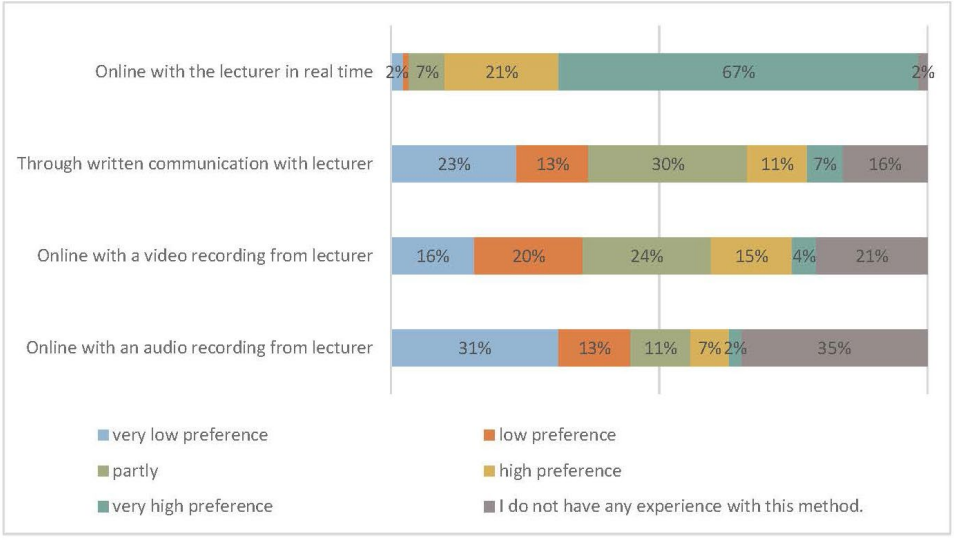

Fig. 1: Preferred online teaching method (N=184)

The highest preference for online teaching was to be online with the teacher in real time. 67% said they had a very high preference for this method. Written communication with the lecturer was less preferred. Only 6.7% indicated a very high preference, while 23.5% indicated a very low preference for this method. A fifth of students (19.6%) showed a (very) high preference for online teaching with video recordings of the lecturer. The least preferred method of online teaching was the option

of online audio recordings of lecturers, which was also the least common option, with 34.6% stating that they had no experience with this method.

From the focus groups we found that professional (previous) experience with digital tools supported more positive experiences with online teaching: “In my job we have already worked a lot with Zoom, we did everything digitally” (focus group 1, person 3). Another factor associated with positive experiences with online teaching was the increased flexibility and variety of participation. This refers to time, space, tools and channels of online teaching. Students had the opportunity to participate and engage in online teaching without having to commute to the university, which is particularly important for ACE students as most students do not live close to campus.

Digital relationships with peers were associated by the interviewees with positive experiences: “We created a WhatsApp group and used it to work together, for example to prepare for exams” (Focus Group 1, Person 4). This shows that available social media tools can enhance students’ experience, especially in online learning settings; self-organization and mutual support are possible. Digital networking was also facilitated through platforms such as LinkedIn, which helped students to connect. In addition to networking, digital spaces were also used to organize study groups, as the quote above illustrates. Overall, the majority of students interviewed successfully used digital spaces to build community, support each other and learn together, as most of them were already familiar with digital tools (Zoom, WhatsApp and LinkedIn).

The role of lecturers was more ambiguous. Some interviewees perceived lecturers as supportive, which had positive effects on networking and establishing a sense of belonging. Others expressed that lecturers had no interest in getting to know them and had not supported them in establishing a relationship with peers in an online learning setting: “Some instructors did not want the camera on. They did not want us to show our faces. In a communication program, being told not to show ourselves is questionable” (focus group 1, person 3).

Some students were surprised that despite the option of meeting in person again, some events remained online. In one case, this led to an exclusion from joint activities, since some students met informally in person due to being employed at the same institution: “My colleagues are all employed by the university. I am the only one employed by a company outside of university that only occasionally uses the university’s lab. It was difficult to join the group, but I was lucky to know one person from the study before. That is how I got in” (focus group 1, person 6).

In addition, students found it challenging to balance homeschooling and childcare along with their studies, since kindergartens and schools were closed most of the time: “I didn’t have that much freedom for education during the pandemic, because I had two children in two different types of school and had to get it right once, with partly analogue lessons and it was actually chaotic” (focus group 5, person 3). Interestingly, ACE students expressed to prefer a clear separation of different life spheres and perceive their studies as a break from family and employment. They viewed the blending of boundaries between these spheres due to online teaching, homeschooling, and remote working as a disadvantage.

4.2 Students’ perceptions of online teaching in relation to demographic characteristics

To answer the second research question “How is their perception related to sociodemographic characteristics?”, we used the quantitative data and applied a linear regression model with the dependent variable “perceived barriers in online teaching,” a mean score that consists of 12 items measured on a Likert scale from 1=low barrier to 5=high barrier (Rel.=.923).

	Beta	**Sig.**
Term		
Summer Semester 2020	0.00	.953
Winter Semester 2020/2021	0.02	.837

Summer Semester 2021	0.11	.213
Winter Semester 2021/2022	0.20	.037
Country (ref: Austria)		
Germany	-0.01	.893
other European country	0.23	.011
Asia	0.02	.806
Gender		
Women	-0.25	.006
Caring responsibility (ref: no care responsibility)		
Caring responsibilities towards minors	0.18	.043
Caring responsibilities towards relatives	0.20	.014
Caring responsibilities towards minors and relatives	0.02	.816
Highest education degree (ref: postgraduate study)		
Apprenticeship or equivalent qualification	0.26	.020
Technical school without leaving examination/Matura/Abitur or equivalent qualification	0.23	.045
Master exam	0.10	.330
College or academy or equivalent degree	0.12	.182
School leaving examination/Matura/Abitur (general secondary school)	0.25	.039
School leaving examination/Matura/Abitur (vocational school)	0.36	.008
Other university entrance qualifications	-0.05	.641
Bachelor or equivalent degree	0.37	.045

Masters or equivalent degree	0.24	.173
PhD, Dr. or equivalent degree	0.11	.376
Study field (ref: Economics & Business)		
Building & Environment	-0.08	.408
Education	0.06	.533
Digitalisation & Sensors	0.08	.294
Health & Medicine	0.35	.003
Arts & Culture	-0.06	.498
Media & Communication	0.13	.152
Migration & International Affairs	-0.07	.400
Psychotherapy & Social Services	0.15	.211
Law & Administration	0.10	.345

Tab 1: Regression Analysis (N=184) (Intercept 1.225; SD-Error 0.522; R-Square = .386)

Results reveal that women, students with caring responsibilities towards minors and/or (elderly) relatives and students who started their studies in WS 2021/22 had a higher probability to perceive barriers in online teaching. Students coming from another European country than Germany, perceived more barriers than students from Austria. Students who have earned a school leaving examination, but have not yet experienced studying at university, perceived more barriers than students who have already finished a postgraduate study. Students in Health and Medicine experienced more barriers than students in Economics and Business, which can be partially explained by the imperative significance of hands-on experiences, particularly field studies, within the realm of Health and Medicine.

4.3 Students' voices on how to improve (online-)teaching and learning

To explore the third research question "What are possible ways to improve teaching and learning in a post-Covid-19 environment?", we draw on findings from the qualitative focus groups. The majority of interviewees advocated for a hybrid approach that combines online lectures with in-person interactive seminars, however, it was important to also acknowledge potential challenges that can arise in hybrid settings: "If I may say something briefly again, clearly a new way of teaching. New media, new possibilities. That was the interesting thing and we are positive about that. But also having difficulties in mastering them" (focus group 3, person 5).

Many of them preferred being guided in an in-person setting from time to time opposed to solely being taught online: "I think there is a point where it [online setting] is difficult. I believe that if you carefully consider the online stakes, i.e., where it makes sense, or offer them in addition, it can be a significant gain. But you always have to keep a little connection to the participants" (focus group 4, person 2).

Students also stated that clear communication regarding the online and in-person components is key for preparation and engagement since they have busy schedules outside of university. Instructors can support students by establishing clear boundaries, such as refraining from weekend assignments and declaring non-response to emails during weekends. Fostering meaningful interactions in both online and in-person settings were expressed as crucial by the interviewed ACE students. Incorporating discussion forums, group projects, and virtual events cultivates a sense of community and promotes collaborative learning.

5 Discussion

This study explored ACE students' experiences of online teaching in the midst of the COVID-19 pandemic. It also systematically analysed the interplay between their perceptions and socio-demographic characteristics, with the aim of exploring ways to improve teaching and learning in a post-COVID-19 environment from the students' perspective.

The results revealed enabling and inhibiting factors for students to perceive their learning experiences in online teaching environments as positive during the pandemic. Communication and interaction with peers and lecturers, whether formal or informal, was found to be crucial for a positive online teaching experience. Students created spaces on social media platforms to connect with each other and on campus (such as study groups) to get to know each other. Self-organisation among students can be empowering, providing a sense of community and agency. However, care must be taken to ensure that purely online events do not inadvertently exclude students who are not part of existing networks.

In addition, the findings suggest that lecturers play a critical role in creating a positive learning environment. Teaching methods, competencies and experience with online teaching techniques influence how students perceive and engage with course material. However, the findings show that lecturers can also act as barriers to the educational process, depending on their approach and adaptability to the online environment. Students felt that some lecturers lacked the skills to teach in an online environment and showed no interest in facilitating online discussions, which is in line with Martin's (2020) findings. Another barrier mentioned was the organisation of the courses. Due to the multiple commitments and roles of ACE students outside of university (e.g. employment, caring responsibilities), a clear timetable as well as flexibility is important to them.

ACE students' perceptions of barriers varied according to their individual characteristics. Women, students with caring responsibilities and international students from non-German-speaking countries were more likely to perceive barriers to online

learning. Gender differences contradict studies by Almomani et al. (2021) and Lobos et al. (2022), who report that 'traditional' female students show higher levels of optimism, satisfaction and engagement with online learning experiences. However, studies of non-traditional students corroborate our findings, particularly in relation to work-life balance and childcare (Singh et al., 2021), as also found by Keser Aschenberger et al. (2023), with men being more likely to study in a dedicated space, while women used spaces that also served other purposes, such as the kitchen.

In addition to student agency in creating digital and remote spaces, a nurturing environment created by the university that encourages dialogue, collaboration and social engagement is a critical factor in successful online learning experiences (Raaper et al. 2022). Teaching methods, lecturers' skills in facilitating online learning, and experience of online teaching methods and assessment are key to shaping the experiences and perceptions of ACE students. Lecturers can therefore act as both facilitators and barriers to positive perceptions of online teaching. The blended learning approach, which combines online and face-to-face learning, can provide opportunities for networking (Crew & Märtins, 2023; Imran et al., 2023; Megahed & Hassan, 2022; Thornton et al., 2023).

5.1 Conclusion

As higher education institutions adapt to a post-pandemic reality, the transformation of teaching methodologies takes centre stage. Online teaching has emerged as a powerful tool for extending educational opportunities to diverse student populations. For example, it can break down geographical or financial barriers.

However, while online teaching can be used to widen participation and foster inclusivity, there is a pressing need to carefully refine and enhance the overall experience of students and pay attention to unintended negative effects on student equity (e.g., decreasing social and academic integration). One important aspect is to tailor online learning to students' needs and background. Research shows that recognizing and accommodating the varied needs and backgrounds of students is important to provide meaningful online learning experiences, education of high quality, and reduce

attrition (Stone, 2022; Maloney et al., 2023). For example, flexibility in instructional design, resources, and accessibility ensures that online education can become an inclusive platform.

An important aspect for the development of higher education institutions that can be drawn from this study is to increase knowledge about their ACE student population and their different needs. For example, our findings show that most ACE students envisage more blended/hybrid teaching after the pandemic, with opportunities to meet and network. Such empirical evidence can be used to inform curriculum and course design to improve the (digital) learning experiences of ACE students. Another aspect is to evaluate 'what works' by regularly involving ACE students in discussions, decision-making processes and research to assess whether their needs are being met. This is particularly important in the context of ACE as the student population has very specific needs due to their work experience, time constraints and responsibilities outside of the university context (Hooß, 2014; Leow et al., 2022). In addition, the professionalization of online teaching is important, as lecturers did not have the necessary training in the distance learning environment (Guppy et al., 2022), which was also evident in our study.

This encompasses factors, such as training for lecturers, program management, coordination efforts, and quality assurance measures. Establishing clear guidelines and standards is also crucial to creating a standardized and effective online teaching environment. Furthermore, continuously investigating factors influencing students' (online) learning experiences is important to not only enhance ACE students' education but also to be able to adequately address new forms of inequalities that may arise based on learning equipment, experience and space.

6 References

Almomani, E. Y., Qablan, A. M., Atrooz, F. Y., Almomany, A. M., Hajjo, R. M., & Almomani, H. Y. (2021). The influence of coronavirus diseases 2019 (COVID-19) pandemic and the quarantine practices on university students' beliefs about the online learning experience in Jordan. *Frontiers in Public Health, 8*, 595874.

Boyd, N.M., Liu, X., & Horissian, K. (2022). Impact of community experiences on student retention perceptions and satisfaction in higher education. *Journal of College Student Retention: Research, Theory & Practice*, *24*(2), 337–365.

Bozkurt, A., Karakaya, K., Turk, M., Karakaya, Ö., & Castellanos-Reyes, D. (2022). The impact of COVID-19 on education: a meta-narrative review. *TechTrends*, *66*(5), 883–896.

Charmaz, K. (2006). *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*. Thousand Oaks: SAGE Publications.

Coleman, V. (2021). Digital Divide in UK Education during COVID-19 Pandemic: Literature Review. Research Report. Cambridge Assessment. https://files.eric.ed.gov/fulltext/ED616296.pdf

Cramarenco, R.E., Burcă-Voicu, M.I., & Dabija, D.C. (2023). Student perceptions of online education and digital technologies during the COVID-19 pandemic: A systematic review. *Electronics*, *12*(2), 319. https://doi.org/10.3390/electronics12020319

Crew, T., & Märtins, O. (2023). Students' views and experiences of blended learning and employability in a post-pandemic context. *Social Sciences & Humanities Open*, *8*(1), 100583.

Ebner, M., Schön, S., Braun, C., Ebner, M., Grigoriadis, Y., Haas, M., Leitner, P., & Taraghi, B. (2020). COVID-19 epidemic as E-learning boost? Chronological development and effects at an Austrian university against the background of the concept of "E-Learning Readiness". *Future Internet*, *12*(6), 94.

Fiorini, L.A., Borg, A., & Debono, M. (2022). Part-time adult students' satisfaction with online learning during the COVID-19 pandemic. *Journal of Adult and Continuing Education*, *28*(2), 354–377. https://doi.org/10.1177/1477971422108269

García-Morales, V.J., Garrido-Moreno, A., & Martín-Rojas, R. (2021). The transformation of higher education after the COVID disruption: Emerging challenges in an online learning scenario. *Frontiers in psychology*, *12*, 616059.

Gouëdard, P., Pont, B., & Viennet, R. (2020). *Education responses to COVID-19: Implementing a way forward* (OECD Education Working Papers No. 224; OECD Education Working Papers, Vol. 224).

Guppy, N., Verpoorten, D., Boud, D., Lin, L., Tai, J., & Bartolic, S. (2022). The post-COVID-19 future of digital learning in higher education: Views from educators, students, and other professionals in six countries. *British Journal of Educational Technology*, *53*(6), 1750–1765. https://doi.org/10.1111/bjet.13212

Hamilton, L., & Gross, B. (2021). How Has the Pandemic Affected Students' Social-Emotional Well-Being? A Review of the Evidence to Date. Center on Reinventing Public Education. https://www.crpe.org/publications/how-has-pandemic-affected-students-social-emotional-well-being-review-evidence-date

Haverila, M.J., Haverila, K., & McLaughlin, C. (2020). Variables affecting the retention intentions of students in higher education institutions: A comparison between international and domestic students. *Journal of International Students*, *10*(2), 358–382.

Huber, S.G. (2021). Schooling and Education in Times of the COVID-19 Pandemic: Food for Thought and Reflection Derived from Results of the School Barometer in Germany, Austria and Switzerland. *International Studies in Educational Administration (Commonwealth Council for Educational Administration & Management (CCEAM))*, *49*(1).

Hooß, K. (2014). *Wissenschaftliche Weiterbildung für IT-Wissensarbeiter: Bedingungen und Motive der Teilnahme und Nichtteilnahme*. Springer-Verlag.

Imran, R., Fatima, A., Salem, I.E., & Allil, K. (2023). Teaching and learning delivery modes in higher education: Looking back to move forward post-COVID-19 era. *The International Journal of Management Education*, *21*(2), 100805.

James, N., & Thériault, V. (2020). Adult education in times of the COVID-19 pandemic: Inequalities, changes, and resilience. *Studies in the Education of Adults*, *52*(2), 129–133.

Kahl, R. (2020). Zwischen Zeitknappheit und Profilierungserwartungen. Wissenschaftliche Weiterbildung an Hochschulen. *Magazin erwachsenenbildung.at*, *41*. https://doi.org/10.25656/01:21326

Keser Aschenberger, F., Radinger, G., Brachtl, S., Ipser, C., & Oppl, S. (2023). Physical home learning environments for digitally-supported learning in academic continuing education during COVID-19 pandemic. *Learning Environments Research*, *26*(1), 97–128. https://doi.org/10.1007/s10984-022-09406-0

Korkmaz, G., & Toraman, Ç. (2020). Are we ready for the post-COVID-19 educational practice? An investigation into what educators think as to online learning. *International Journal of Technology in Education and Science*, *4*(4), 293–309.

Lai, J., & Widmar, N.O. (2021). Revisiting the digital divide in the COVID-19 era. *Applied economic perspectives and policy*, *43*(1), 458–464.

Leow, A., Billett, S., Le, A.H., & Chua, S. (2022). Graduates' perspectives on effective continuing education and training: Participation, access and engagement. *International Journal of Lifelong Education*, *41*(2), 212–228. https://doi.org/10.1080/02601370.2022.2044398

Litchfield, I., Shukla, D., & Greenfield, S. (2021). Impact of COVID-19 on the digital divide: a rapid review. *BMJ open*, *11*(10), e053440.

Lobos K., Cobo, Rendón R., Mella-Norambuena, J., Maldonado-Trapp, A., Fernández Branada, C., & Bruna Jofré, C. (2022). Expectations and Experiences with Online Education During the COVID-19 Pandemic in University Students. *Front. Psychol. 12*,815564.

Lueger, M. (2010). *Interpretative Sozialforschung: Die Methoden*. Wien: Facultas.

Luo, Y. (2022). Study on the Transformation of Chinese Higher Academic Continuing Education in the Context of the Epidemic. In *Proceedings of the 2022 6th International Seminar on Education, Management and Social Sciences* (ISEMSS 2022) (pp. 2035–2042). Atlantis Press.

Maloney, S., Axelsen, M., Stone, C., Galligan, L., Redmond, P., Brown, A., Turner, J., & Lawrence, J. (2023). Defining and exploring online engagement fatigue in a university context. *Computers and Education Open*, *4*, 100139.

Martin, L. (2020). Foundations for good practice: The student experience of online learning in Australian higher education during the COVID-19 pandemic. *Report published by Australian Tertiary Education Quality and Standards Agency* (TEQSA). https://files.eric.ed.gov/fulltext/ED610395.pdf

Megahed, N., & Hassan, A. (2022). A blended learning strategy: reimagining the post-Covid-19 architectural education. *Archnet-IJAR: International Journal of Architectural Research*, *16*(1), 184–202.

Milana, M., Hodge, S., Holford, J., Waller, R., & Webb, S. (2021). A year of COVID-19 pandemic: Exposing the fragility of education and digital in/equalities. *International Journal of Lifelong Education*, *40*(2), 111–114.

Nikou, S., & Maslov, I. (2023). Finnish university students' satisfaction with e-learning outcomes during the COVID-19 pandemic. *International Journal of Educational Management*, *37*(1), 1–21. https://doi.org/10.1108/IJEM-04-2022-0166

Nurhas, I., Aditya, B.R., Jacob, D.W., & Pawlowski, J.M. (2022). Understanding the challenges of rapid digital transformation: the case of COVID-19 pandemic in higher education. *Behaviour & Information Technology*, *41*(13), 2924–2940.

Panacci, A. G. (2015). Adult students in higher education: Classroom experiences and needs. *College Quarterly, 18*(3), 3.

Pausits, A., Oppl, S., Schön, S., Fellner, M., Campbell, D.F. J. & Dobiasch, M. (2021). Distance Learning an österreichischen Universitäten und Hochschulen im Sommersemester 2020 und Wintersemester 2020/21. Wien: Bundesministerium für Bildung, Wissenschaft und Forschung. https://www.bmbwf.gv.at/dam/jcr:3db6ff5e-68f7-43d0-a31f-0e667d258d69/210701_WF048_21%20-Distance%20Learning%20an%20Unis%20und%20HS%20im%20SS20%20und%20WS20_21_bf_FINALE_VERSION.pdf

Pham, T.T.T., Le, H.A., & Do, D.T. (2021). The factors affecting students' online learning outcomes during the COVID-19 pandemic: a Bayesian exploratory factor analysis. *Education Research International*, 1–13.

Pokhrel, S., & Chhetri, R. (2021). A literature review on impact of COVID-19 pandemic on teaching and learning. *Higher education for the future*, *8*(1), 133–141.

Resch, K., Alnahdi, G., & Schwab, S. (2022). Exploring the effects of the COVID-19 emergency remote education on students' social and academic integration in higher education in Austria. *Higher Education Research & Development*, 1–15.

Raaper, R., Brown, C., & Llewellyn, A. (2022). Student support as social network: exploring non-traditional student experiences of academic and wellbeing support during the Covid-19 pandemic. *Educational Review, 74*(3), 402–421.

Saldaña J. (2013). *The Coding Manual for Qualitative Researchers*. Los Angeles: SAGE.

Schmölz, A., Geppert, C., & Barberi, A. (2020). Digitale Kluft: Teilhabebarrieren für Studierende durch universitäres home learning?. *Medienimpulse*, *58*(02), 1–31. https://doi.org/10.21243/mi-02-20-31

Singh, Ji., Matthees, B., & Odetunde, A. (2021). Leaning online education during COVID-19 pandemic – attitudes and perceptions of non-traditional adult learners. *Quality Assurance in Education. ahead-of-print*. https://doi.org/10.1108/QAE-12-2020-0147

St. Clair, R. (2008). Beyond the barriers: Understanding decisions to participate in continuing higher education among under-represented groups. *The Journal of Continuing Higher Education*, *56*(1), 15–26. https://doi.org/10.1080/07377366.2008.10400138

Stanistreet, P., Elfert, M., & Atchoarena, D. (2020). Education in the age of COVID-19: Understanding the consequences. *International Review of Education*, *66*, 627–633.

Stone, C. (2022). From the margins to the mainstream: The online learning rethink and its implications for enhancing student equity. *Australasian Journal of Educational Technology*, *38*(6), 139–149.

Sum, M., & Oancea, A. (2022). The use of technology in higher education teaching by academics during the COVID-19 emergency remote teaching period: a systematic review. *International Journal of Educational Technology in Higher Education*, *19*(1), 59. https://doi.org/10.1186/s41239-022-00364-4

Tang, K.H.D. (2023). Impacts of COVID-19 on primary, secondary and tertiary education: a comprehensive review and recommendations for educational practices. *Educational Research for Policy and Practice*, *22*(1), 23–61.

Thornton, C., Peart, D., Hicks, K., McCullogh, N., & Allen, G. (2023). 'If lecturers are at home, they can't tell their kids to shut up': university student engagement with blended learning during Covid-19: a mixed methods study. *Journal of Further and Higher Education*, *47*(4), 540–550.

Ulzheimer, L., Kanzinger, A., Ziegler, A., Martin, B., Zender, J., Römhild, A., & Leyhe, C. (2021). Barriers in Times of Digital Teaching and Learning – A German Case Study: Challenges and Recommendations for Action. *Journal of Interactive Media in Education*, *2021*(1), 1–14. https://doi. org/10.5334/jime.638

Waller, R., Hodge, S., Holford, J., Milana, M., & Webb, S. (2020). Lifelong education, social inequality and the COVID-19 health pandemic. *International journal of lifelong education*, *39*(3), 243–246.

Xu, T., & Xue, L. (2023). Satisfaction with online education among students, faculty, and parents before and after the COVID-19 outbreak: Evidence from a meta-analysis. *Frontiers in psychology*, *14*, 1128034.