

## Different Implementation Variants of the Synchronous Hybrid Setting in Continuing Education

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### Abstract

*The synchronous hybrid setting combines face-to-face and online learning at the same time. This format offers freedom of choice of learning location, which is an advantage for participants in continuing education. However, the implementation of this setting poses some challenges for participants, lecturers, and programme management. The aim of this study is therefore to identify the different ways in which the synchronous hybrid setting can be implemented in continuing education to take advantage of its opportunities and to address its challenges. Based on structured interviews with programme managers from different universities, two main variants of the synchronous hybrid setting and three design conditions were identified. The variants and conditions were evaluated from a learning, teaching, and management perspective. The results show that the benefits and possible risks for stakeholders vary depending on the variant and design condition. Several requirements for a successful implementation of this setting are discussed.*

**Keywords:** *synchronous hybrid setting; continuing education; programme management; new learning formats.*

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### 1. Introduction

The Covid 19 pandemic has pushed many universities to experiment with hybrid formats in higher education. Hybrid formats combine face-to-face teaching with online learning. One of these formats is the synchronous hybrid setting, where one part of the group participates simultaneously on site and the other part of the group participates virtually via video conferencing system (Raes et al., 2020). This format offers participants the advantage of a free choice of learning location combined with the possibility of synchronous interaction (e.g., Butz & Stupnisky, 2016).

In addition to degree programmes, universities also offer continuing education programmes leading to a Certificate of Advanced Studies (CAS), Diploma of Advanced Studies (DAS) or Master of Advanced Studies (MAS). These programmes are aimed at working people with a bachelor's or master's degree, but also at "non-traditional" students with work experience but without a university degree. Usually, these people participate in continuing education programmes for professional reasons, especially to "keep up to date/maintain knowledge" and "be able to do the job better/increase career opportunities". For this target group in particular, the synchronous hybrid setting has potential, as participants are usually faced with the task of reconciling their work and/or caring responsibilities with continuing education. Exchange and networking with peers are often motives for attending a training programme (Gegenfurtner et al., 2019). This can be better achieved in a synchronous hybrid setting, as there are opportunities for face-to-face interaction with other participants, as opposed to purely online formats or asynchronous courses. However, there are some challenges implementing synchronous hybrid teaching. The setting requires some technical infrastructure to enable virtual participants to hear and see everything in the room (Raes et al., 2020). The setting is also challenging from a didactic point of view, as lecturers must design the lessons in such a way that the two groups ("on-site" and "virtual") have a similar learning experience (Raes, 2022). This is especially the case when it is not clear in advance how many participants will be on site and how many will participate virtually.

The pedagogical (content and didactic) design of continuing education programmes is only one of the tasks of programme managers. Marketing and public relations as well as cost calculation are also of central importance (Haberzeth & Dernbach-Stolz, 2022). Against this background, it is necessary for programme managers to make it possible to combine the programme with family, social and professional obligations and to consider the needs of the participants in terms of the form of learning. Even if the pedagogical-didactic added value and the effect on individual learning in hybrid settings remains marginal (Müller & Mildenerger 2021). To date, there is little research on the synchronous hybrid setting in continuing education (Jansen & Rother, 2024). However, a recent study based on group discussions with programme managers showed that the need for online offerings and hybrid teaching will remain even after the pandemic (Haberzeth & Dernbach-Stolz, 2022). The current paper, therefore, addresses the following question: *In which variants can the synchronous hybrid setting be implemented in continuing education to exploit the opportunities of this setting and at the same time consider the challenges associated with it?*

## **2. Methods**

To answer the research question, a two-stage process was followed. First, structured interviews were conducted with programme managers of Swiss continuing education programmes. The sample was selected to include individuals who a) are responsible for one or more continuing

education programmes, b) had already used synchronous hybrid settings in their programmes and c) were willing to share their experiences in an interview. In total, the sample consisted of 10 people from different higher education institutions. The aim of the interviews was to find out whether the setting is used strategically in the programme design and how the synchronous hybrid setting is implemented. In addition, the question was asked what prerequisites are needed for the setting to be successful. Therefore, the structured interview guide included both strategic questions and concrete implementation questions. The interviews were recorded, transcribed, and then coded by two people each. The code system was developed step by step: A first version was developed deductively based on the interview guide and then, in a second step, further developed inductively based on the interview material. The code system was discussed and finalised by the two members of the analysis team. Half of the interviews were coded by each of the two individuals and the codes were then discussed in the team for the final coding. Two main implementation variants with different design conditions could be identified.

In a second step, these implementation variants and their design conditions were presented to programme managers to identify the advantages and disadvantages of these options from three different perspectives, i.e., the perspective of the participants (learning perspective), the perspective of the lecturers (teaching perspective) and the perspective of the programme managers (management perspective). Six people from four different schools of the university participated in the group discussion, all of whom had already used the synchronous hybrid setting in their programmes. To structure the discussion, the variants and conditions were considered one by one, first from the learning perspective, then from the teaching perspective and finally from the management perspective. The results were recorded on a Miro board.

### **3. Results**

The interviews showed that the most important decision in programme planning is how many days of training are offered synchronously hybrid. Two main variants of how the synchronous hybrid setting is realised in the programmes were identified. *Variant 1 (V1)*: In some programmes, all or almost all events (e.g., except for the opening and closing events) were offered in a synchronous hybrid format. Participants could therefore (almost) always participate virtually or on site. *Variant 2 (V2)*: In other programmes, only individual events were held in synchronous hybrid mode. For example, only in the case of shorter evening sessions did participants have the choice of attending in person or participating virtually. In another programme, the synchronous hybrid setting was offered depending on the content. Programme managers also described marking specific dates in the programme schedule when a choice of location was available. Across the programmes, these two main variants were each designed with different conditions. One condition refers to the number of times participants are allowed to participate virtually (*condition A*). In some programmes, the participants could choose each time from where they wanted to participate, in others the number of days on which they could

participate virtually was limited (“wildcard days”). Another condition relates to the registration for the place of participation (*condition B*). In some programmes no registration was necessary, in others the participants had to indicate this in advance, varying two to three weeks before or up to the day before. As a third condition, we identified whether the courses are recorded and made available to the participants (*condition C*). In some programmes, the camera was always left on all the time and everything, including the breaks, was recorded, and made available. In other programmes lecturers selected what was recorded and made available. There were also programmes that did not record at all.

To compare the advantages and disadvantages of the implementation variants and the design conditions, they were evaluated from three perspectives. Table 1 shows the evaluations of V1 and V2 from the perspective of the participants, the lecturers, and the programme management. It is noticeable that V1 is associated with several advantages, especially for the participants and the management. However, there are also some risks associated with these advantages. From the teacher's point of view, it depends very much on how often a teacher teaches in the programme and is used to the setting. For the management, the available technical infrastructure is a relevant factor. All rooms used need to be equipped accordingly.

Table 1 also shows that V2 lacks two major advantages in terms of cost calculation of the programme and including a wider target group, namely the larger geographical area from which participants can be recruited and the increase in group size. V2 also limits the participants' freedom of choice to the days on which the setting is offered. On the other hand, this variant is better able to consider the preferences of the lecturers. In addition to the advantages and disadvantages of the two variants, there are further advantages and disadvantages that depend on the design conditions, see Table 2. As we can see, the restrictions of condition A and B lead to a higher control effort for lectures and programme managers. While the advantage of condition A is that more participants are on site and thus interaction is promoted, the advantage of condition B is in particular the better planning security for lecturers and programme managers in terms of presence on site/virtual and the required infrastructure. For condition C, the possible disadvantages seem to outweigh the advantages.

**Table 1. Advantages and disadvantages of variant 1 and variant 2**

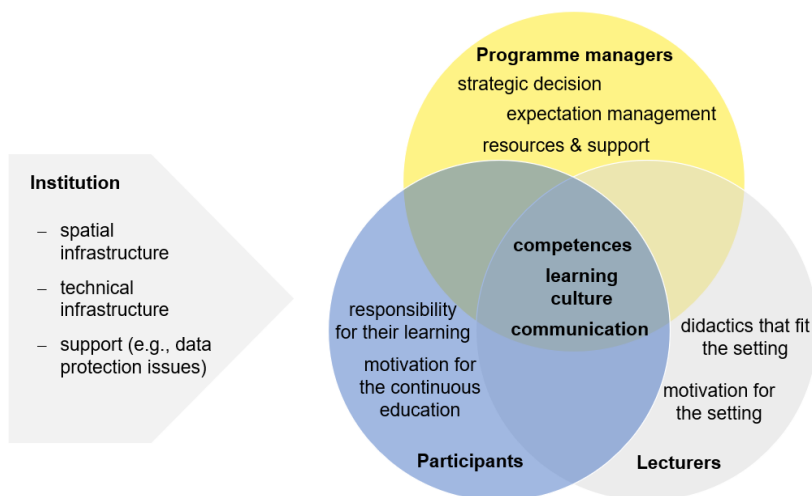
	<i>advantages</i>	<i>disadvantages</i>
<b>Variant 1: all (or almost all) events synchronous hybrid</b>		
<b>Participants</b> learning perspective	Flexibility (save travel time, reconciling professional and private commitments; possibility to participate despite holidays, accident/ illness); inclusion of participants who would otherwise not be able to participate	risk of reduced networking if only a few are on-site; if only a few are on-site, they might feel out of place; risk of distraction of virtual participants
<b>Lecturers</b> teaching perspective	Opportunity of expanding digital competences	high competence requirements; designing two equal leaning spaces is challenging and needs higher effort; risk of increased stress due to the concern that technology will not work
<b>Programme managers</b> management perspective	greater reach of the programme (geographical); more people can participate; positive impact on marketing and positioning of the programme; diversity can be increased, e.g., by involving external speaker; promotion of digital competences	higher staff cost, e.g., for support of the virtual group, technical support; technical infrastructure is needed
<b>Variant 2: only individual events synchronous hybrid</b>		
<b>Participants</b> learning perspective	Planning certainty as to when all participants will be on site; chance of increased exchange with the group	Flexibility is limited to the hybrid events
<b>Lecturers</b> teaching perspective	they do not always need to teach in the synchronous hybrid setting; planning certainty as to when all participants will be on site	For the hybrid events: high competence requirements; designing two equal leaning spaces is challenging and needs higher effort; risk of increased stress due to the concern that technology will not work
<b>Programme managers</b> management perspective	not all lectures have to teach hybrid (preferences can be taken in account); infrastructure does not have to be provided continuously; advantages of hybrid can be partly used, e.g., for marketing	two advantages for the cost calculation (larger group size and wider geographical reach) cannot be used

**Table 2. Advantages and disadvantages of design conditions**

	<i>advantages</i>	<i>disadvantages</i>
<b>Condition A: number of times participants are allowed to participate virtually is restricted</b>		
<b>Participants</b> learning perspective	increased networking opportunities as more participants are regularly on site	flexibility is restricted to number of allowed events; choosing the day to participate virtually can cause stress
<b>Lecturers</b> teaching perspective	higher probability that a certain number of people will be on site	attendance must be monitored, tracking generates effort
<b>Programme managers</b> management perspective	advantages of the hybrid setting can be partly used (e.g., for marketing) at the same time a certain presence on-site can be ensured	attendance must be monitored, tracking generates effort, results in border cases with potential for discussions
<b>Condition B: participants need to register for the place of participation (on-site/virtual)</b>		
<b>Participants</b> learning perspective		flexibility is restricted depending on how early the registration must be made
<b>Lecturers</b> teaching perspective	planning certainty as to how many people are present on site and how many people are present virtually	attendance must be monitored, tracking generates effort
<b>Programme managers</b> management perspective	planning certainty as to whether support (and infrastructure) must be provided	attendance must be monitored, tracking generates effort
<b>Condition C: the course is recorded and made available to the participants</b>		
<b>Participants</b> learning perspective	flexibility is increased as lessons can be (re)viewed at a late date	risk of irritating participants (data protection), risk of participants being less likely to ask questions/contribute; recordings are not of high quality
<b>Lecturers</b> teaching perspective		not all lecturers want to be recorded; extra effort if only part of the course is recorded
<b>Programme managers</b> management perspective	meets a demand from the participants	Risk of videos being passed on without paying for the training; extra effort, high data storage volume is needed

## 4. Discussion

In line with previous research (Raes et al, 2020; Raes, 2022), the present study shows that, depending on the variant implemented and the design conditions used, different advantages and disadvantages arise for the stakeholders, which must be weighed up against each other. Overall, several prerequisites are necessary for the successful implementation of a synchronous hybrid setting, see Figure 1.



*Figure 1. Prerequisites for a successful implementation of the synchronous hybrid setting.*

First, there are some prerequisites on the part of the institution. If the spatial and technical infrastructure is not in place, neither variant can be successfully implemented. To avoid the possible risks of V1, an appropriate learning culture as well as competences and communication among all participants are crucial. Furthermore, it contributes to the success if each stakeholder brings further prerequisites, such as motivation for the setting (lecturers) or the training (participants). Based on our findings we recommend V1, if programme managers want or need to open up the programme to a larger group from a wider geographical area, to take into account different needs and to give participants more (local) flexibility. V1 also seems to be the right choice, if the focus is on knowledge transfer with individual work in small groups and exchange in plenary, and if there is a thematic reference to digitisation in terms of content. In addition, participants must have a high level of intrinsic motivation for the programme and lecturers should be open to the setting. Finally, appropriate technical and spatial infrastructure must be available, and flexibility should not be restricted by design conditions (e.g., limited dates, registration). V2 may be an option if programme managers want to offer at least some flexibility to participants and to meet different needs. In particular, if it seems important that the whole group meets regularly on site, or if some lecturers are not willing to teach in this setting, V2 can be used as an alternative to the combination of face-to-face and online teaching.

Programme managers who need to make a strategic decision on whether to use the synchronous hybrid setting could use the following questions: A) Demand/competition: How competitive is the market for the programme? B) Target group: What do the (potential) participants want? What about their motivation and competences? C) Lecturers: What are their motivations and skills? D) Timing: When does the training take place? (full days and/or evenings) E) Focus of the training: knowledge transfer in plenary or focus on application in small groups. Depending on the answers given, programme managers may opt for the synchronous hybrid setting or choose an alternative.

The study is limited as it relies on insights from a select number of programme managers. To improve the reliability of future research, direct perspectives from lecturers and participants should be gathered. Nonetheless, as programme managers often serve as both lecturers and participants in continuing education, we believe our findings can provide valuable guidance for successful implementation of the synchronous hybrid setting.

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## **References**

- Butz, N. T. & Stupnisky, R. H. (2016). A mixed methods study of graduate students' self-determined motivation in synchronous hybrid learning environments. *The Internet and Higher Education*, 28, 85–95. doi: 10.1016/j.iheduc.2015.10.003.
- Gegenfurtner, A., Fisch, K. & Ebner, C. (2019). Teilnahmemotivation nicht-traditionell Studierender an wissenschaftlicher Weiterbildung: Eine qualitative Inhaltsanalyse im Kontext von Blended Learning. *Beiträge zur Hochschulforschung*, 41, 58–83.
- Haberzeth, E. & Dernbach-Stolz, S. (2022). Programmplanung in der Weiterbildung unter dem Einfluss der Corona-Pandemie: Befunde einer empirischen Studie. *Zeitschrift für Weiterbildungsforschung*, 1–22. doi: 10.1007/s40955-022-00217-7.
- Jansen, A., & Rother, T. (2024). Umsetzung des synchron hybriden Settings in der Weiterbildung: Erleben von sozialer Präsenz und Interaktion. *Zeitschrift Hochschule und Weiterbildung (ZHWB)*, 2(2), 58–65. doi: 10.11576/zhwb-6601.
- Müller, C. & Mildenerger, T. (2021). Facilitating flexible learning by replacing classroom time with an online learning environment: A systematic review of blended learning in higher education. *Educational Research Review*, 34, 1–16. doi: 10.1016/j.edurev.2021.100394.
- Raes, A. (2022). Exploring Student and Teacher Experiences in Hybrid Learning Environments: Does Presence Matter? *Postdigital Science and Education*, 4(1), 138–159. doi: 10.1007/s42438-021-00274-0.
- Raes, A., Detienne, L., Windey, I. & Depaepe, F. (2020). A systematic literature review on synchronous hybrid learning: gaps identified. *Learning Environments Research*, 23(3), 269–290. doi: 10.1007/s10984-019-09303-z.