HYBRID EDUCATION THROUGH THE EYES OF INFORMATION STUDIES AND LIBRARY SCIENCE STUDENTS

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ABSTRACT

This study is a mixed design study on a sample of 87 respondents to a questionnaire in the Information Studies and Library Science program in Brno that identifies their attitudes towards hybrid teaching. Hybrid teaching is understood as synchronous education with the choice of participating in an online or face-to-face educational session. The students declared that they prefer this form of education and wish to continue using it long term. The study shows that students in the online environment prefer more passive and individual forms of educational interaction because they are connected to such education and can concentrate on it. The study offers a basic description of the phenomenon and identifies further areas for developing educational approaches and activities.

Keywords: *hybrid education, Microsoft Teams, online, LIS, information science, university education*

INTRODUCTION

Education has undergone significant changes due to the COVID-19 pandemic, which has affected the way teaching is delivered, the use of technology in schools, and students' expectations of a good education (Marinoni et al., 2020; Schleicher, 2020; Tarkar, 2020). At the same time, there is a significant mismatch between the perceptions of students and teachers in tertiary education in the Czech Republic (Beseda et al., 2021).

Educational analysis of these changes is not easy because COVID-19 influences educational changes and social, psychological, economic, and cultural changes. Nevertheless, some authors talk about the postcovid age (Ashfaquzzaman, 2020; Stanistreet et al., 2020) as a new emerging stage in education. Despite all the negative impacts of the pandemic, there have been transformative movements in education to which universities must respond.

This study focuses on hybrid teaching, is teaching in which online and offline learners simultaneously participate in the classroom. However, this label can be ambiguous in the literature. For example, Lima et al. (2021) distinguish between semipresence and hybrid learning models, and Fistarol et al. (2021) do the same. Hybrid learning is often reserved for temporally separated online and offline activities in a single educational unit (Li et al., 2021). Liang (2021) also agrees, writing about the possibility of leveraging the strengths of online and offline environments and forms of collaboration to optimize the achievement of learning objectives. Ranjan et al. (2021) describe A New Hybrid Force Model in which hybrid learning integrates human actors (professors) with digital entities by using artificial intelligence. However, they think of mixed methods as a combination of online and traditional teaching methods without further explanation.

It is essential to define what is synchronous video and presentational learning simultaneously, as we believe (and have heard from students) that this will be a form of education that will play an increasingly important role. Our notion of hybrid learning overlaps with the Bates (2020) concept of HyFlex. Its fundamental idea is to simultaneously support interactive learning for students in online

and face-to-face learning. This idea is shared by several authors, such as Beatty (2019) and He et al. (2015). According to Herman et al. (2019), this is a topic that has been little researched and, at the same time, is necessary to examine because of the inclusion of women (especially mothers caring for children) in the educational process. Jimenez-Cortes and Aires (2021) also point out the need to rethink these education models about feminist pedagogy in different discourses.

Therefore, the Hyflex model has educational (He et al., 2015) and social (Herman et al., 2019) relevance. It is also closely related to the findings of the 2021 EDUCAUSE Horizon Report Teaching and Learning Edition (Pelletier et al., 2021) that highlights the need to construct educational forms that are welcoming to the integration of students with atypical learning pathways and nontraditional students in general.

The HyFlex model currently has a relatively broad experience base of implementation in specific areas of education. Malczyk (2019) reflects on experiences in social work, Jongmuanwai et al. (2021) focuses on the field of science and Kohnke and Moorhouse (2021) reflect on the English language arts education. Bell et al. (2014) describe four basic organizational interaction models that allow for the connection of online and offline learners. They consider both a conventional learning model involving only online learners as passive listeners and more challenging collaborative learning arrangements.

Many studies focus on the impact of this educational setting. Kohnke and Moorhouse (2021) emphasize that the HyFlex model requires a challenging pedagogical approach that develops self-management and self-learning in students while considering the entire educational environment. They analyze HyFlex components for communication, collaboration, task completion, or information acquisition for practical implementation elements. Abdelmalak and Parra (2016) report a positive response from students about their learning.

A similar model of education is offered by BlendFlex (Quinn & Lee, 2016), which emphasizes the need for presenting encounters with complementarity in asynchronous or synchronous educational activities. Miller et al. (2021) link the HyperFlex and BendedFlex models and call for finding appropriate forms of learning for a specific situation. They argue that the only way to lead to good recommendations is to produce empirical case studies that will enable normative conclusions to be formed in the future. Our study also subscribes to this call.

The changes brought about by the pandemic can be described as a turning point in education towards a new normal (Moor, 2020). Technology is gradually transforming the environment in which we live so we can no longer say that we live only online or only offline (Floridi, 2021). We do not learn just online or offline; there is a hybrid pedagogy concept (Stommel, 2012). This new situation leads us to think about the implications of the changes associated with technology in education and with a particular spatiotemporal compression to offer students a quality and adequate education (Nørgård, 2021).

Hybrid education is a significant trend in tertiary education. Ayhan and Seki Öz (2021) talk about how it can help in courses aimed at developing self-esteem and assertiveness. They use a model in which students chose between face-to-face and online instruction. The online form was further differentiated into synchronous and asynchronous parts, which were complementary. The hybridization itself consisted of choosing the form of study (online or face-to-face) and possibly a combination of the two.

Vergara et al. (2022) highlight that hybrid forms of teaching combining students' online and physical presence can be helpful in laboratory exercises. Hybridization has the character of separating certain activities in laboratories into real and virtual ones. This makes it possible to create a broader and better range of learning activities in the laboratory exercises. There is a clear distinction between online and physical participation. Education is not a selection of activities as in Ayhan and Seki Öz (2021) but a combination of different forms of implementing specific measurements and experiments.

Palacios-Hidalgo and Huertas-Abril (2021) argue that development of the subject matter skills and the digital competencies are needed for the final competency profile of the student. In this case, hybrid teaching combines theoretical lectures (present) and online exercises. Thus, the difference between the online and the face-to-face part is the

form of interaction between students and teachers.

The examples show that despite the existence of methodological frameworks such as HyFlex, which describes the possibilities for advancing hybrid learning, the studies often describe scenarios as rapid adaptation to new conditions rather than thoughtful educational design that maximizes the benefits of combining the two environments.

In our experiment, we worked with a hybrid learning model that relied on the HyFlex model in which students could choose whether to participate in online or face-to-face learning. All the teaching was implemented in such a way that it took place in a traditional classroom and, simultaneously, is made available to students online through Microsoft Teams (Hebert et al., 2022; Poston et al., 2020; Sobaih et al., 2021). They also could use this tool to communicate with the teacher, ask questions, or participate in discussions. At the same time, a recording of all lessons was available to all students.

RESEARCH QUESTIONS

Most papers offer either a theoretical concept or focus on one specific course or experiment. However, authentic teaching is more complex and challenging. It is difficult to harmonize many teachers (depending on the student, approximately 7–12 lecturers) to carry out a specific didactic activity and coordinate procedures and educational practice. Therefore, our research aimed to describe how students in an authentic, complex curriculum perceive the experience of a hybrid form of teaching. The students at our university typically take three or four compulsory courses and a similar number of electives. The study followed an action research paradigm designed to improve—or modify—practice. The university's goal is to provide an education that is beneficial and enjoyable for the students themselves and in which they are interested.

Therefore, we focused on the following research questions:

1. Do students prefer purely online or offline learning or is a hybrid version of education ideal?
2. What are the reasons students do not participate in face-to-face learning?
3. How do students feel about online learning?
4. Are students just studying or are they doing other activities when they are online?
5. What classroom activities do students expect and want during online/hybrid learning?
6. How long can students pay attention?

All these questions have a common goal of designing a change in the educational environment and supporting teachers who can only work well with students' needs if they know them. These questions point to possible adjustments in curriculum design, e.g., strengthening activation methods or involving online students more in presessional activities. These were our assumptions going into the research.

RQ2 focuses on barriers to face-to-face learning. The question aims to find out what barriers to face-to-face learning students have so that they can be reduced online. The question is directed towards students' needs and is related to the action research paradigm that the study is working with.

RQ3 focuses on the feelings of online-only students. It is based on the needs of teachers (a follow-up to action research) to adapt hybrid teaching methods to engage online students in the learning process. Teachers themselves assume that they have their own prior experience in working with preservice students. Seeing the student's faces and precisely what they are doing is feedback for teachers that is not available in the online environment.

At the same time, there is a research gap—we do not have data on how students interpret and perceive hybrid forms of education in the whole curriculum at our study program. Previous research was implemented with relatively little control over individual lecturers and courses. Foreign research from other contexts on this topic exists, but it is constructed differently (Biggs, 2006; Hannay & Newvine, 2006). The only obligation of this study was to teach compulsory hybrid courses, though we recommended teaching electives in the hybrid format.

METHODOLOGY

The study is oriented towards an initial descriptive statistical analysis of how students in Information Studies and Library Science reflect on hybrid instruction or on their feelings, experiences, and needs when they are the online portion of students participating in real-time education. A Google Forms questionnaire was used for the research and was sent electronically to all students in the field, both undergraduate and graduate.

Description of the Educational Situation

In the context of the pandemic, departmental management decided that all teaching of compulsory courses would be hybrid in the field of Information Studies and Library Science. Students could attend lectures in lecture halls, join online, and watch live streaming of individual courses. All lecture halls were equipped with streaming technology, so in terms of implementing the broadcast, all the lecturer needed to do was start Microsoft Teams and join the respective event in those lecture halls. As far as mandatory and optional courses are concerned, the choice of education was up to the lecturers and depended on the type of course.

Based on the department's decision, we determined that the primary focus of the study would be on students participating in the class on a full-time basis and that online connectivity was a kind of "bonus" or benefit. This fact was significantly reflected in student responses to the course design. Even though the number of physical participants in each course steadily declined over the semester, overall attendance did not change much across systems because students gradually moved online.

Students from the second year of their bachelor's degree study had online learning experience in a university environment and first-year students only in secondary schools. This fact was essential for evaluating the results for two reasons. The first is the digital competencies that students had to demonstrate in terms of prior learning and their ability to self-manage. We expected that they had prior knowledge and that technical issues would not be a dominant barrier to accessing this form of education. The second important aspect was that some students took care of children or lived or worked outside the Czech Republic and started their studies entirely through distance learning. For them, what Herman et al. (2019) emphasized may apply, or Pelletier et al. (2021)—that technology is the only way to study and not be excluded from education.

Compared to other humanities and social science majors, information studies and library science students have technology-oriented courses that are a permanent part of their curriculum and majors. This should reduce technical barriers to accessing this form of education, but it also prevents, to some extent, the generalization of our findings to other fields of study.

Research Design

The questions in the questionnaire were constructed in two steps. First, we discussed the topic with students with three questions: What form of participation do you prefer? Why? and In what ways could hybrid teaching be improved? In the second step, we transformed these questions into options in a questionnaire designed for all students in the department. In this process, we were inspired by the grounded theory approach of Glaser and Strauss (2017), who suggest working so that each research step builds on previous findings from the same community. Such an approach allows us to understand a particular situation or phenomenon by one group.

For the next step, we conducted a short presurvey with students of an elective course. Master's degree students (n = 18; 3 face-to-face and 15 online) were asked to describe why they chose a particular form of attendance for the course and what could or should be improved. There were three men and 15 women in this sample. All the men were online. Based on these short answers, questions were constructed and supplemented with themes and issues that emerged when reflecting on the lessons by the lecturers in the department. This created the categories of options students could choose from in research questions RQ2–RQ5, which are presented in Figures 2–5.

Classroom discussion analysis is a method that draws on a wide range of relatively loose methodological approaches (Call-Cummings, 2019; Cardelle-Elawar, 1993; Sawyer, 2004) that emphasizes the importance of capturing an overall narrative approach or ethos to a particular issue in a classroom approach. This methodological approach guided the first phase of the research and allowed us to formulate questions and offer data for interpretation. Although the research results may appear quantitative, it is, in fact, a mixed-design approach. In interpreting the data, we relied on students' statements when freely answering our questions.

We used Google Forms for the research, with 13 questions focusing on the online portion of hybrid learning and three demographic questions (Table 1). Students received the link in their regular email newsletter and had one week to complete the survey. The questionnaire combined Likert-scale questions, short open-ended questions, and

Table 1. Overview of Google Forms Questions

I prefer compulsory courses in the form of (for the choice of other, please specify your preferences)
Required elective and elective courses I prefer in the form of (for other choices please specify your preference)
What are the reasons why I prefer online learning?
When I watch a live lecture online, I feel that...
How do you identify with the following statements?
Do you have other reasons? Share them with us!
When I watch a live lecture online, I feel like I prefer.... (1 - least .... 10 - most)
Do you have other feelings? Share them with us!
Do you have any other wishes? Please share them!
How many minutes can you pay attention (on average)?
Rate the hybrid teaching in the department on a scale of 1 - bad to 10 - good.
Give an overall verbal rating of the hybrid teaching in the department. You can write generally and comment on individual experiences in different courses.
What would you improve about hybrid teaching in the department?

Note: These questions were supplemented with a demographic set of questions at the end of the questionnaire. The Google Forms is available at: https://forms.gle/bFQRD4JJ8wGedjZH8.

several single-choice questions. Data collection occurred between December 13th and December 20th, the last week of the semester in which the hybrid instruction was implemented.

The questionnaire was distributed to all 319 students in the department (Table 2). The respondents were 77% female, 22% male, and 1% identified as "other gender." The return rate of the questionnaire was 27%. Table 2 shows the bachelor's and master's student demographics, with a slightly higher return rate for undergraduate students. Students in the combined form in the follow-up master's degree are under-represented.

Questionnaires can be used as a broader research approach within an embedded theory approach (Krosnick, 2018). This format allowed us to reach all students in the field and, given the average return rate of 27%, to offer a somewhat representative student perspective on the issue. Given the nature of the data, we worked with a descriptive approach that interpreted in-depth the data in the context of the research conducted in the classroom.

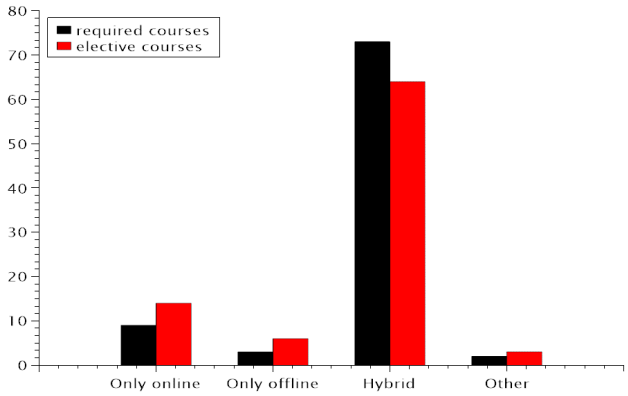
Table 2. Overview of the Total Number of Students (Respondents) and Responses Received

	Total Number of Students	**Number of Responses**	**Returns**
Bachelor's degree students – a present form of study	157	41	26%
Bachelor students – a combined form of study	43	16	37%
Master's students – a present form of study	83	23	27%
Master's students - combined form of study	36	7	19%
Total	319	87	27%

RESULTS

The first question we will address concerns the preferred form of teaching. From the responses shown in Figure 1, it is clear that students prefer hybrid learning for both compulsory courses (84%) and elective courses (73%). The data also show a significant interest in purely online forms of learning (at 10%), which may indicate the need for a more substantial transformation of tertiary education, and that students preferring purely face-to-face courses are a significant minority (about 3%). A hybrid format based on choosing whether to participate online or face-to-face is essential for students, with the requirement that all courses (or at least compulsory courses) be recorded to revisit the content.

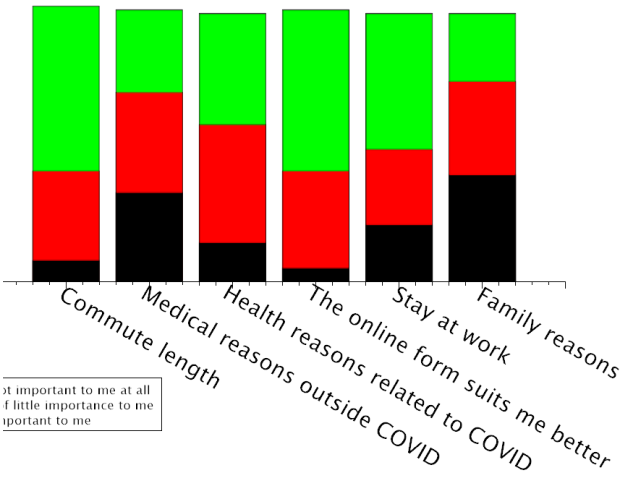
Figure 1: Students' Perspectives on Preferred Forms of Instruction in Required and Elective Courses



The second topic we were interested in was why students attend an online or a face-to-face class (Figure 2). Commute length is the deciding factor for most students, and fulfilling work obligations is also an important factor. Thus, flexibility is essential for students to make decisions about learning according to their demands at work. Family reasons play a significant role for students, especially for mothers. They are not necessarily mothers with young children—those students are often on maternity or parental leave. Although this is not a numerically strong group, there is a clear impact on whether or not they can participate in the educational process.

Our research also analyzed students' feelings about online learning participation (Figure 3). The data clearly show that students do not feel

Figure 2: Students' Reasons for Online Class Participation

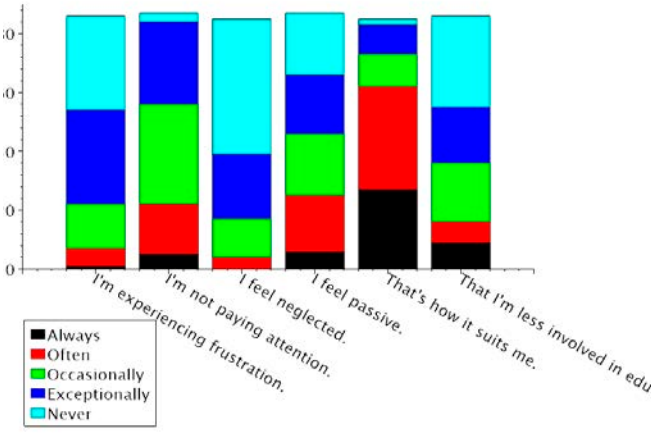


Note: Health reasons are divided into COVID-19 (specific to 2021) and other reasons.

frustrated, left out, or passive about hybrid learning. In contrast, several students in their responses to the question report they are more engaged in the discussion, though this depends on the specific goal of the lesson.

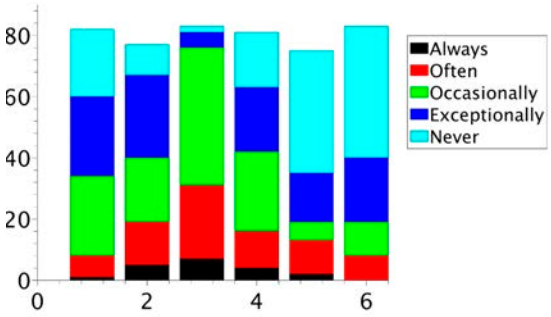
Students declared a high level of satisfaction with their studies and, at the same time, gratitude for the existence of hybrid education. They are aware that it is still a new concept of teaching that is challenging for teachers, who try to accommodate students. We are aware that postfeeling questions are more appropriate and typical for students to answer using interviews or when taking psychological tests. However, our research analyzed the overall learning environment design in a hybrid classroom, which includes fundamental feeling aspects.

Figure 3. Students' Feelings During Hybrid Learning Online Participation



To improve student understanding, we also worked on the possibility of identifying with certain statements (Figure 4). The results show that students are comfortable with the form of the current design because they can pay attention to it, they sometimes interact with classmates outside the lecture environment, and hey work relatively little in lectures, which is surprising given the previous responses. About a quarter of students engage in manual or physical activity to maintain attention in hybrid classes, which may also affect the design of educational environments in lecture halls. Students can also eat, drink, or do other activities during typical lectures, such as knitting or working with a computer or mobile phone. Lecture halls do not have any restrictions, and students can also do these activities (watching social media and non-teaching activities) in regular classes. The power of the teacher does not regulate this but rather the social context and peer pressure does. We did not ask specific questions in this area, but students sometimes perform these activities even in the regular class.

Figure 4. Level of Student Identification with Select Statements

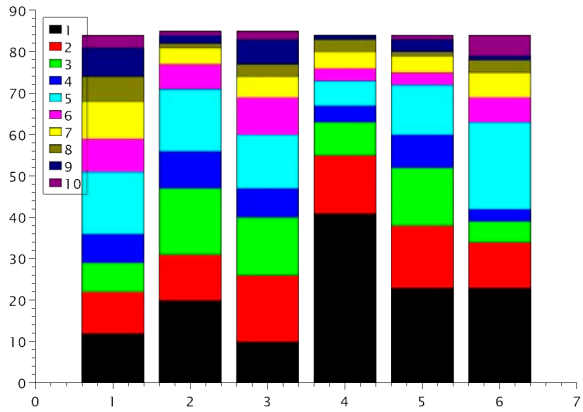


Scale on the *y*-axis: number of students. Statements on the *x*-axis:

1. For online viewing of a live lecture, I solve work-related issues.
2. I find it hard to pay attention in the online watching live class.
3. In online live lecture watching, I eat.
4. When watching a live course online, I communicate on another channel with my classmates.
5. I do "handwork" to pay attention to protecting a live lecture online.
6. When watching a live course online, I do some physical activity.

Our research also focused on what changes students would like to see in education (Figure 5). They were given six statements of change to rate on a scale of "1 - I would like less," to "10 - I would like as much as possible." After simplification, the data can be interpreted so that up to a value of 5, the activity is negatively received, and from 6 upwards, students want more of it. As the data show, students prefer a more passive form of education and do not want to do more team tasks (the lowest-rated item). Also, they do not want to use Mentimeter more, engage in discussions, or have more interconnectedness with presenting students. Mentimeter (or Menti) is an app that allows users to insert polls or questions into presentations that students can answer from a computer or mobile phone. It enables results from online students to be displayed to those who are physically present. The data shows that students prefer conservative, less active forms of learning, and individual (less social) forms of online learning.

Figure 5. Changes in Education Students Desire



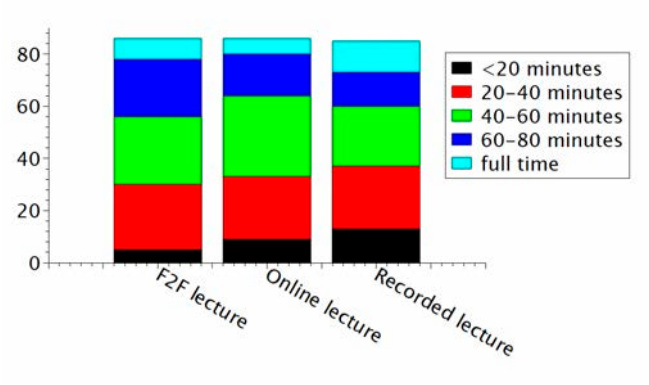
Scale on the *y*-axis: 1 - *least* .... 10 - *most*. Statements on the *x*-axis:

1. More interactivity in Menti or Slide.
2. More opportunities to talk.
3. More opportunities to post to chat.
4. More group work.
5. More independent tasks.
6. More interdependence with presenting students.

The last question focuses on how long students persist with awareness during lectures (Figure 6). It shows three facts quite clearly. First, students do not sustain attention even at regular physical

lectures, which last 90 minutes in our setting. Thus, it would be better to consider shortening them. Second, the length of declared attention decreases from physical attendance to online attendance to watching recordings. At the same time, however, the advantages, such as physical activity and the option to pause the recording, increase. The data suggest that the optimal length for a lecture is around 60 minutes, both in person and online.

Figure 6. Length of Student Attention in Various Forms of Teaching



DISCUSSION

Stommel (2012) points out that pedagogy must become genuinely hybrid. For him, the hybrid does not mean the coexistence of two forms of presence in the classroom, i.e., semipresence (Lima et al., 2021), but removing barriers between the online and offline environments. He argues that hybrid pedagogy must focus on finding activities in the intersection of these environments that will be effective in one or the other or allow the settings to be used simultaneously. For example, when students evaluate the teaching experience, they cite as a recommendation, "Take advantage of being on the computer. (e.g., assignments like, now try to look it up on the Internet")." This practice is essential—hybrid teaching should maximize online and offline resources so that the educational process is as effective as possible. The data suggest that actual hybrid teaching is a significant challenge. As Bates (2020) considers it, hybridity is not just about enabling real-time presence through technology but is a broader methodological transformation of teaching.

The fundamental question is what these forms should look like. In their model, Bell et al. (2014) emphasize active learning and teamwork. The topic of hybrid collaborative teams has been reflected in the literature (Cremers et al., 2017; Fiol & O'Connor, 2005). Specific practices for its implementation can also be encountered (Bell et al., 2014; Rahman et al., 2019). However, our research has shown that students are not interested in more excellent teamwork, nor do they find a more passive form of learning unattractive or negatively perceived. This is consistent with the findings of Beseda et al. (2021), which indicate that Czech students perceive passive forms of learning significantly more favorably than their teachers.

Teamwork is valued in the learning process (Cohen & Lotan, 2014; Freeman, 1995), and Burdett (2003) reports that students at university say they have more fun and learn more in a group and notes a substantial increase in incompetence. Still, our students are skeptical about more teamwork. Beseda et al. (2021) report that students perceive discussions typical of team collaboration to be less educationally beneficial than lectures. Thus, the specific design of educational activities must be systematically thought through and supported by additional research data.

There was a concern among academics about whether students who learn through video are passive and not paying attention. Thus, real hybrid learning is not occurring because these students are not learning much. However, our data show that this is not the case. While students consume food in lectures, occasionally address work obligations, or interact outside of class with classmates, their attention span is not much less (although there is a decrease) than when they are physically present in lectures. Nor do they feel neglected or less engaged in the class. Our research also dispels the concern that physically present students are somehow disadvantaged or harmed by the hybrid mode because almost no one preferred the purely physical form (3% for compulsory courses and 7% for elective courses). Further, there is no evidence students felt this way, even in the open-ended responses.

Hybridization seems to mean students choose the optimal form of presence (which students confirm), and in accord with Bates (2020), we need to rethink what online activity means. In Vlachopoulos (2020), simple transformations do not work; we cannot assume that learning online will be the same as or similar to offline. Even the idea of active learning or active class participation has changed in physical and online

presence. Seymour-Walsh et al. (2020) believe that technology enables a shift in the whole concept of education, which should not stand on the mere restoration or petrification of old practices and face-to-face lectures. It is not about reducing demands but transforming them (Johnson et al., 2020).

Some students find it easier to speak in front of their classmates online or to use other forms of participation than classwork:

> I honestly engage more in online learning than in school. Nevertheless, maybe it's also because I spent a year and a half of school online, and I guess I've grown up a bit.
>
> I often engage more in online teaching because part of the fear of speaking that I have when I attend class in person is gone.
>
> I engage more in online teaching than in school.

This aspect (see Anam & Tantri, 2020; Damayanti & Listyani, 2020; Sinaga et al., 2020) needs to be considered when designing interactions, which is why, for example, Hill (2020) recommends the use of Mentimeter for greater student engagement, which is also supported by other studies such as Gokbulut (2020) and Mayhew et al. (2020). At this point, we can see a noticeable difference between the literature (and general pedagogical considerations) and our research. The reason may lie in students' conservatism about active learning, as revealed by Beseda et al. (2021), but there may be a more profound perspective. Our research did not examine the issue at the level of individual courses, which would likely show significant differences. Another possibility is that students can learn about the issue comprehensively and, given the different course offerings and forms of education, perceive the benefits of different modes of education, which they wish to maintain within the diversity of their educational pathway.

For one-fifth of the respondents, hybrid learning (or the motivation for participating online) was linked to family reasons. This confirms the assertion of Herman et al. (2019) that hybrid learning enables the inclusion of women (parents in general) in the education process. Here is a sample of one typical response,

> For me, as a combined student with a family and a job, hybrid learning is the best fit. When I could, I arrived in person. I applied online when I had to be with my family or on a business trip. I am grateful for this study option.

In general, women who have young children prefer attending classes in person, but being able to connect online is essential to the reality of their study situation (see Albrecht et al., 2017; Hamad, 2021; Kibelloh & Bao, 2014).

Student responses indicate that hybrid learning is practical for working students as it offers them an online presence and leads to flexible learning (Remenick & Bergman, 2021). However, as Henno et al. (2014) point out, working students need a broader transformation of learning objects than just an online stream or recorded lectures. Our data show that the hybrid form of learning allows some students to stay in the education process and not drop out. This is one way to create the conditions for less conventional learning pathways (Bamber & Tett, 2000; Bowl, 2021).

Technical problems are a significant barrier to the effective implementation of hybrid education is. For example, students complain about the poor sound system in the lecture halls. Students present in the audience cannot be heard by online participants during the discussion due to their distance from the microphone. Online students complain about poor camera settings and low-quality resolution. These are the same problems described in numerous studies (Bennett & Glover, 2008; Chen et al., 2021; McCrohon et al., 2001; Wang et al., 2010). These problems are easy to eliminate in theory, but they significantly complicate educational approaches in practice. However, there also remains the problem of students with poor connectivity (Simamora et al., 2020), which complicates the educational process for both the student and the instructor. The issue is usually the use of technology by the teacher rather than a problem on the part of the students. This may be influenced by, amongst other things, the field of study of the students and the fact that they participated in this particular study.

Due to the limited amount of data in our study, it is not easy to compare different groups of students. The open responses indicate that the continuing master's students are more satisfied with the hybrid form of study and its delivery than the

undergraduate students. This is probably because a significant proportion of them (on average about half) come from other disciplines that generally are not as receptive to hybrid teaching. On the other hand, undergraduate students consider the hybrid form of education to be standard and make suggestions to improve the educational process or practices. This finding contradicts a more general trend, as reported by Beseda (2021), who argues that undergraduate students, in particular, are more passive but should become more active with time spent at university, as evidenced by the research of Lowman et al. (2020).

The fact that undergraduate students, in particular, perceive hybrid learning, as confirmed by our research, to be of the new standard. Out of 61 responding students, 51 prefer hybrid learning for compulsory courses, while the remaining 10 favor a purely online form of education. Our department responded to this finding by developing a new online bachelor's degree program and retaining hybrid teaching in the existing curriculum.

Limitations of the Study

The first limitation of the research was the return rate of 27% was relatively high and representativeness of the sample. The representativeness in gender, form of study, and level of analysis is sufficient, though it is unclear whether a rather "techno-optimistic" group of students was involved in the research. Students with some discomfort or mismatch associated with hybrid learning had sufficient motivation to respond.

At the same time, we were aware that the total number of respondents did not allow us to use more demanding statistical methods and forced us only to describe reality. On the other hand, we did not believe that "small-scale research" has no right to be studied and that the research conclusions could not be of general interest and benefit to other researchers. We were aware that the research covers the needs of an action research paradigm to improve practice in a particular department. However, it is not sufficiently representative for generalizing the results.

The following limitation is the focus on a specific educational situation. Although some of the findings may serve as a basis for future research hypotheses, it is impossible to generalize results to all humanities faculties.

We consider the quantitative dimension of the research, which dominated the questionnaire and may bias some of the research findings, the most problematic. For example, for the question after reasons for online class participation, the argument of the length of commute is arguably less weighty than family reasons. However, the proportionality in the graph might suggest otherwise. Also, accurate interpretations of other findings must be tied to qualitative analyses to make them appropriate. Even though the research relies on a short qualitative preinterview, it creates an enormous scope for more challenging interpretations based on further qualitative interviews.

The study results are strongly influenced by the structure of the study and its cultural anchoring in the Czech university environment. Despite long-standing efforts to change and modernize the curriculum, Czech university education is still largely dependent on formal lectures, which students perceive as the primary form of education. Discussion seminars are also part of the curriculum, but only as electives. For courses, there are often practical exercises, but only as individual activities or team tasks, for which it is not necessary to meet physically. Beseda et al. (2021) say that students perceive ideal learning as passive. There could be a significant response shift with a more robust integration of project-based learning into compulsory courses (Aldabbus, 2018; Beier et al., 2019; Ronoh et al., 2021). However, this education model seems firmly entrenched in Central Europe, surprisingly more so among students than academics (Beseda et al., 2021). This cultural difference may lead to different perceptions of hybrid education in the Czech Republic, Scandinavia, or the United States.

Summary of Key Results

This study identified several significant findings related to hybrid teaching in the (relatively small) university education curriculum under investigation:

- Students are interested in a hybrid form of education. For some, it is a preferred method of studying; for others, it is increased convenience or an environment better suited to their learning style.
- The methodological and design aspects of hybrid learning are crucial for the challenge of how to teach hybrid well. At the same time,

students are not yet challenged in this area.

- Students in online education prefer a more individual and face-to-face form of work; they do not seek more involvement and activation if they participate in the lesson online.
- A significant challenge can be identified as the rethinking of hybrid education as a tool for greater flexibility and diversity of educational approaches.
- Hybrid education enables persons taking care of children to study; thus, it has a socially inclusive character.

These five points should (we believe) be the subject of further research and, above all, of applied educational interventions that will allow these points to be developed more effectively. After all, the purpose and goal of hybrid teaching is not the research findings but creating a better learning environment for as many students as possible. Therefore, we need research findings to enable adaptation in practice, to broaden approaches and perspectives on education in this area, and to help develop the entire field of study. Thus, this research is the first step in helping grow the quality of hybrid education and inspiring other researchers and educational practitioners.

CONCLUSION

The study draws on two research traditions. We used grounded theory, which emphasizes the interconnectedness of individual research findings within the research design and the possibility of interpreting the data within a broader cultural-educational context. We adopted an action research paradigm that focuses on practice and practice improvement. For us, research becomes a source of information for the quality educational design of what students view differently from what the literature or teachers' feelings may indicate. The main differences can be seen in the fact that students do not require being active during hybrid learning but rather often perceive the need for passive reception of information relevant to their educational mode. Furthermore, students proposing changes in education opens optimistic perspectives towards their ability to participate in their learning actively.

It is indisputable that hybrid education has become—at least in the population we studied—a standard that students are no longer willing to give up and an integral part of the standard offer of how education is delivered in a university setting. Thus, the question is not whether to hybrid teach but how. Further follow-up research on this community based on qualitative methods would offer a deeper understanding of how.

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