

Maximizing Student Engagement in a Hybrid Learning Environment: A Comprehensive Review and Analysis

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Abstract: This article overviews a new teaching method from COVID-19. It uses multimedia resources and more traditional classroom activities together. The course focuses on the benefits of using online parts of hybrid learning in addition to in-person instruction. The benefits of such learning include more opportunities for contact with classmates, participation in the educational process, greater leeway in time management, and interactive education. The purpose of this paper is to provide an overview of the new pedagogical approach that has emerged in the wake of COVID-19, which has prompted a significant number of educational institutions to adopt a particular model due to the adaptability of its schedule and the way students are instructed, in addition to the increased connection and engagement that it fosters between students and teachers. Students who cannot attend class physically can still study thanks to a new hybrid learning method. In addition, students who cannot participate in a traditional classroom setting due to health reasons may have more significant opportunities to participate in hybrid learning.

Keywords: Students' Engagement, Hybrid Learning, Learning Efficiency, Learning Form

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Introduction

There is no general acceptance of hybrid learning. The word is often used, yet it is essential to instructors and students in a changing area (Caner, 2012). Following this objective has created a hybrid learning system, which educates students through in-person and online training. Further research is needed to establish the usefulness of hybrid education and how educators might use this instructional strategy to provide significant learning

opportunities for students (Maurice E. Abi Raad1 & Hamad. Odhabi, 2021). According to Ibrahim Y. K. and Cemre K.Y. (2022), hybrid learning based on merging conventional face-to-face and online teaching-learning paradigms has grown popular with the advancement of technology. Its popularity necessitates a reconsideration of the conclusions of recent empirical investigations on the efficacy of hybrid learning.

It means synchronous learning that teaches both in-person and online learners simultaneously. Hybrid learning is here to stay because it facilitates education delivery in current contexts while satisfying learning objectives. In other words, hybrid learning mixes formal and informal learning with experiential learning. J. Singh et al. (2022). affirm that individuals impacted in higher education must have access to the necessary resources to continue instruction from home. In addition, students needed the resources required for online studies, such as a computer with video and audio capability and a stable high-speed Internet connection (Singh J. et al., 2022). To achieve learning outcomes, such training should provide learning resources and methods (e.g., asynchronous e-learning modules and videos) (Dhawan, 2020).

- What distinguishes blended learning from hybrid learning?

The ratio of one type of activity to another matter less in distinguishing between blended and hybrid formats than the types of participant synchronization. People seeking to study remotely during the COVID-19 lockdown will discover that blended learning is a good alternative, resulting in a considerable boost in learning engagement, according to Duong H., Tong B. Phuong U., Lu (2022). The best results for instructors and students come from utilizing the benefits of each teaching technique and combining the benefits of online and face-to-face learning.

Differentiating between hybrid and blended learning is crucial for picking the method that will benefit the teacher and student the most. These two models have in common the use of IT to supplement and improve classroom instruction. The opposite is true of blended learning, where students and teachers cannot participate in classes remotely or have their lectures recorded and made available online. The hybrid learning model, on the other hand, will enable students to interact with their instructors while receiving instruction online (asynchronous learning). Online and on-campus students share the same learning space in a hybrid setting. The term "hybrid learning" refers to an approach to education in which traditional classroom instruction is combined with distance learning strategies like using digital tools and online materials to maximize the strengths of each. W. Ian O'Byrne and Kristine E. Pytash claim that there is a common need for clarification regarding the differences between hybrid and blended learning. Blended learning, also known as hybrid learning, is a method of teaching in which online activities and other forms of computer-based instruction supplement traditional classroom lectures. Many studies use blended, hybrid, and mixed-mode learning interchangeably. Both approaches combine digital tools with conventional education methods to make learning more adaptable, inclusive, and scalable.

Although "blended learning" is relatively new to education, the ideas and concepts it describes have been around

for much longer. Studies have shown that students benefit significantly from digital teaching, including hybrid learning, because it is student-centered, flexible, and can improve student interaction by providing asynchronous and synchronous tools like zoom meetings, forums, chats, videoconferences, etc. simulations, aids, and interactive whiteboards. That makes it an element of blended learning and a concrete instance of incorporating EdTech into pedagogy. But many different definitions come from even very reliable sources. Future approaches to education will need to be more adaptable, so finding a workable definition is paramount. Therefore, the need to ensure student participation and engagement led to the development of distance learning, which allows students to gain education regardless of their location, thus increasing the adaptability of the learning process. Improvements in Cloud-based potential, improved synergy, and increased creativity on the part of teachers and students are just a few examples of how hybrid learning methodologies are maturing. Due to the restrictions that COVID-19 imposed on the world, online education has become a progressive and safe way to get a degree (Singh et al., 2021). Sarah and Donna claim that the online hybrid courses combine. The effectiveness of mixed classes, measured by student attitudes and performance, varies across the literature, as shown in Figure 1 (Hall & Villareal, 2015).

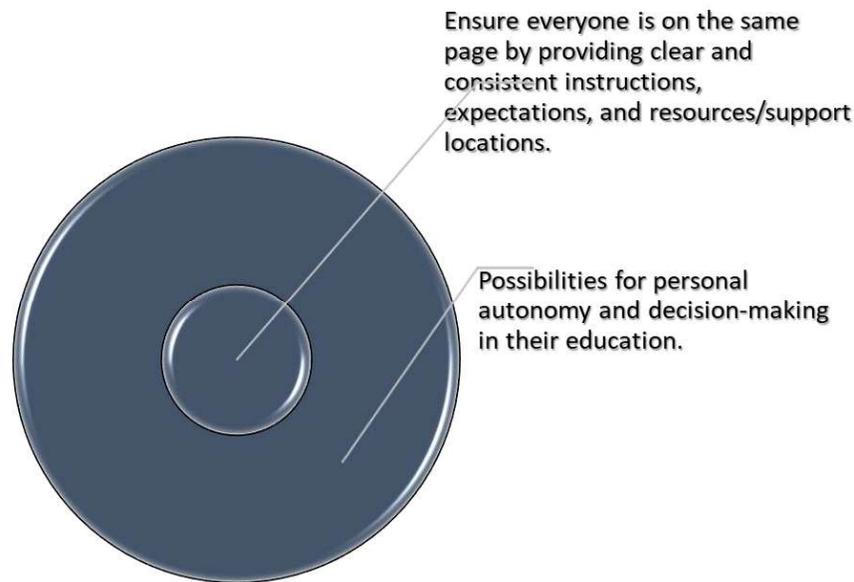


Figure 1. Students' engagement is required for the hybrid education system.

Teachers in face-to-face learning environments must understand how to use a variety of online learning tools as well as face-to-face classroom activities to encourage and monitor students' development. According to Chantal R. et al. (2017), skill development is critical for teachers to promote a flexible, responsive approach and maintain technological capabilities; for students, an ability to navigate technology, interact with the learning environment in meaningful ways, and self-regulate learning is essential, as the lack of physical infrastructure and opportunities for face-to-face interactions in online environments places a greater emphasis on alternate fora. The current study investigates well-known best practices for online instructors, students, and student

assistants and analyzes how they could apply to intensive online situations. Gamage, K. (2022) claims that faculty members are increasingly challenged by two phenomena related to student involvement and interaction in online/hybrid learning environments. First, transitioning to online education calls for adjustments to pedagogy and the construction of modules. The most challenging part will be breaking the habits that both teachers and students have grown accustomed to. The words mean "teacher-student." Classroom dynamics and student development are both influenced by how students interact with one another. According to the developmental viewpoint, as seen in figure 1, a healthy teacher-student connection benefits students' mental health and cognition, socialization, and emotional development.

Beyond the pandemic, Enoch Wong, Shuaiguo Wang, Xiaoxiao Wang, and Xinjie Yu (2022) also consider hybrid education's openness, integration, and resilience. According to Gleason, B. and Greenhow, C., there are difficulties for both students and teachers when synchronous hybrid learning is implemented. Online students may need help to develop a sense of community, which is crucial to their academic performance (Gleason & Greenhow, 2017). Hybrid learning models allow students to attend class in person one day and watch lectures online the next. Students also have the option of attending either in person or remotely. The quality of education will remain the same. One analogy that works well for describing hybrid learning is the hybrid automobile. It doesn't matter if the driver today decides to run on gasoline, electricity, or a hybrid; the end effect will always be forward progress. We introduce the concept of hybrid learning and discuss critical factors for improving engineering education (see figure 2). There are two ways to interpret the classroom setting in engineering courses:

- Learning form (configuration); action and interaction for online and face-to-face learning
- Learning tools (anatomy); Components for learning process

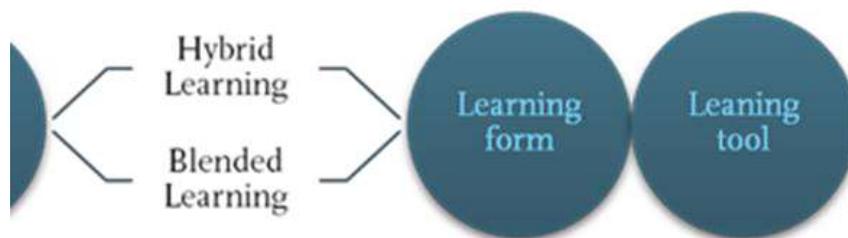


Figure 2. Learning Categories in a Modern Academic Environment

Hybrid learning can only succeed in a healthy educational environment where students feel secure sharing information, everyone has an equal chance to grow, and several communication channels are valued and utilized. If schools want to design an effective hybrid classroom, they need to think forward, avoid blindly copying old teaching methods, and anticipate the future of education (Rotellar & Cain, 2016). As reported by Nashir (M.) and Laili (R. (2021). The academic community must adjust to the new norms by following the rules

established by the state. Educators may tailor their students' lessons with hybrid education to best suit their needs. Yet, several factors must be considered when designing an instructional solution if hybrid training is to be effective. When setting up their students' learning, instructors have more fantastic choices and more freedom with hybrid learning. Nonetheless, the efficiency of instruction delivered in a hybrid format will invariably be affected by several factors that need to be considered in formulating an educational solution. At this point, hybrid learning, which combines face-to-face classroom instruction with independent online study, has demonstrated its value to the education process. The degree to which we participate, pay attention, and show an interest in a subject is directly correlated to our level of engagement with that subject. Because of this, having meetings in the classroom is essential. At the same time as it facilitates successful learning, it transforms the lecture from an awkward "sit down" into an engaging experience for the students. As a result, it is the responsibility of instructors to work toward increasing participation in their classrooms. Engaging students is one of the most critical conditions to be met before teaching can be successful. As stated by Lokanath Mishra, Tushar Gupta, and Abha Shree (2020), the most challenging aspect of any learning process is not coming up with and selecting intriguing content but instead captivating the student to the point where he accesses the online learning area and begins studying. This is the most challenging aspect of any learning process. Students need to understand the lecture content and the curriculum to evaluate whether alternatives for new learning techniques and Technological assistance make sense and put those options into practice. In addition, they need to understand how their objective involvement in the activities and the overall design of the course may be used to fill in any gaps left by the lectures with individualized answers. On the other side, there is a fundamental question that has to be answered: How can one create friends both virtually and in real life? Because hybrid education is the foundation of this topic, teachers must have a solid understanding of its complexity and methodology to design effective lesson plans.

Maximizing Student Engagement in Hybrid Learning: Effective Strategies and Techniques

If students are actively involved in their learning, they are less likely to feel alone when taking online classes and will be more motivated to complete the course material. Florence Martin, and Doris U. Bolliger (2018), think fostering active participation from students in a welcoming digital space is critical. Yet, a dynamic, all-encompassing student engagement platform is required to engage students successfully. Teachers can still sit through boring lectures in the vain hope that their students will pay attention. On the other hand, there are several methods in which students can participate in a hybrid learning environment. Students are more likely to be invested when they try to learn and participate in class. Yet it goes more than that and may encompass things like a motivation to learn and mental health. Students are more likely to be invested when they try to learn and participate in class. Yet it goes more than that and may encompass things like a motivation to learn and mental health. Annelies Raes (2021) agrees that further study is needed to determine what aspects affect a student's motivation to learn and participate in these novel settings—educators' thoughts to back up this possible new norm. Individualized, face-to-face instruction cannot be replicated online. For online and blended courses to be

practical, all students must participate fully in the various learning processes. Introducing the concept of Active learning, which stresses involving students in the learning process via engaging activities, is a popular way to increase engagement (see Figure 3).



Figure 3. Effective Hybrid Class

The idea is to give students a fair chance to contribute meaningfully to classroom discussions. The modern technical infrastructure is essential for high-quality hybrid instruction. Technological speaking, providing students participating in a virtual environment with the whole impression of presence may take time and effort. As stated by Coman, and Cet al (2020), colleges must change with the times to suit the demands of today's students. The importance placed by universities on IT and E-learning platforms has led to a rise in spending on related hardware and software. According to the study's authors, high-quality sound transmission is significant here since students must interact with professors and classmates in ways they feel most at ease.

Maximizing Hybrid Learning Efficiency: Strategies for Lecture-Level Instruction

A leader with a broad viewpoint and the capacity to encourage students are essential qualities in a teacher using a hybrid lecture architecture learning model. There is little question that hybrid learning will become standard practice in classrooms. According to Coman (2020), technological problems are the most pressing, followed by instructors' need for more technical abilities and an ineffective adaptation of their pedagogical approach to the

online setting. There will be a flurry of activity in creating and disseminating various educational and informational technology. Success in the classroom depends on several factors, including customization, motivation, and others; they will all improve. A comprehensive knowledge of digital education should include organizing teacher-student interaction to build a digital educational environment. Specific rules must be followed while the lecture functioning model is created:

Engage in Productive and Collaborative Small Group Discussions: Tips and Strategies

One method is to have students work in smaller groups during class time to debate and elaborate on the content covered in larger-scale lectures or handouts. Students are expected to participate actively in this method by collaborating in small groups to research, pose questions, draw conclusions, and share their findings. As a result of its casual nature and short duration, small-group discussion can be employed repeatedly throughout a single class period. Jitendra. Singh (2021) asserts that it is necessary to investigate various teaching strategies, such as online, hybrid, and blended learning techniques. The widespread adoption of reliable videoconferencing has dramatically increased the effectiveness of hybrid learning. In addition, many platforms support chat rooms where small group discussions are as good as classroom discussions. Working in small groups bridges the physical divide between in-person and online groups in hybrid education. When learners on-site freely work with the students at home in this way to accomplish tasks, develop answers, or prepare presentations, a sensation of being in the middle of things rapidly arises. This requires tools that all those engaged may utilize equally. According to Brame CJ and Biel R. (2015), the appropriate size of a group for small conversations ranges from two to six persons, depending on the activity that you have planned. It may be helpful to pre-assign group members to guarantee a diverse range of vocations, abilities, and experiences represented in the group. This may result in more fruitful and varied conversations (see Figure 4).

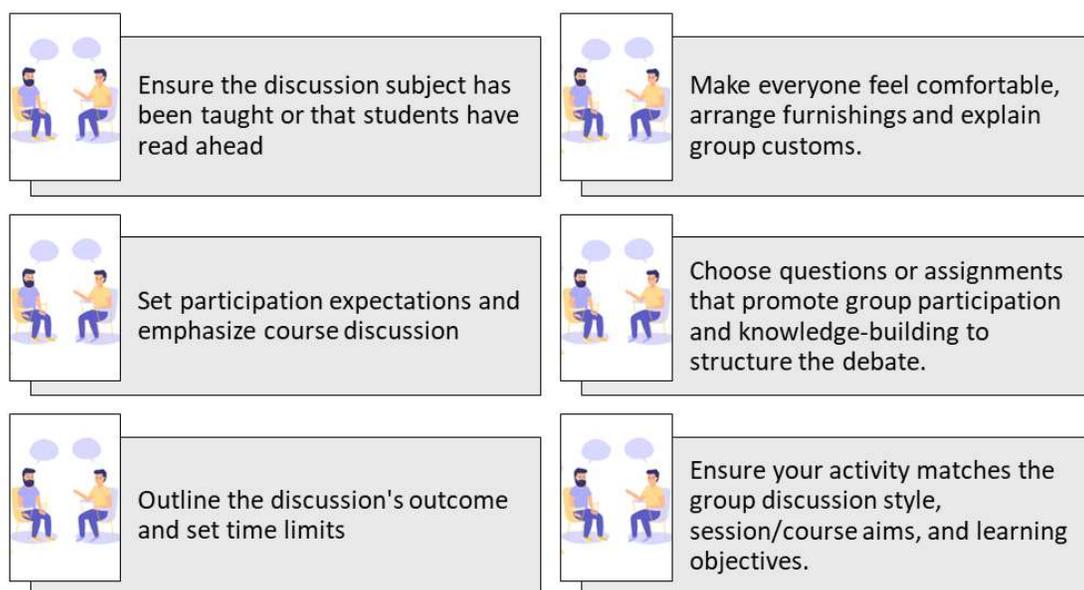


Figure 4. The Benefits of small group discussions in academic settings

A SWOT analysis of the system, in which strengths, weaknesses, opportunities, and threats are explored, might be beneficial when contemplating employing small group discussion as a teaching approach in the classroom. This analysis looks at the system. The SWOT analysis will uncover areas of power that may be called upon for chance while utilizing the strategy. It will also analyze how weaknesses can be eliminated to produce new possibilities. This study can assist a teacher in determining whether or not a particular educational system is acceptable, as well as the potential difficulties that may arise during its implementation.

Enhancing Learning Through Video: Innovative Approaches to Education

Using short films into ins lectures also helps broaden students' perspectives and make the material more accessible. Moskovich, Y., & Sharf, S. argue that using films to achieve the aims of cognitive and emotional instruction is both novel and entertaining (2012). Students may practice their analytical, synthesis, and critical thinking abilities by watching these films and applying what they see to established sociological frameworks. He concludes that incorporating film into non-film classes benefits students in several ways. First, instructors must see any movie they movie show in style to provide the necessary materials for their students. Second, it has been shown that educational videos musing films can be helpful as study aids and clearly explain ideas. Third, Morz thinks showing classroom movies might help students better conceptualize complex concepts. Finally, engineering classrooms can benefit from using films in many ways, including cultivating skills in reasoning, critical thinking, memory, self-regulation, and curricular reflection. According to Morze, L. (2008), the ILO's course is designed to help students learn more, think more critically, and become more invested in their coursework.

Maximizing Course-Level Efficiency with Hybrid Learning: A Study on the Effectiveness of hybrid Learning

The instruction process is complex since teachers are expected to simultaneously be proficient in various activities. Any course design ought to be founded on a distinct collection of learning goals that call for hands-on instruction inside the university; it will make perfect sense to derive learning goals from teaching purposes. The issues posed by hybrid learning can now be addressed by educational institutions such as universities. The challenges of engaging students in learning in traditional classroom settings and those studying independently at a distance can be overcome by employing the strategies outlined in the following paragraphs. The following methods are ones that teachers can utilize to build an objective method for student participation.

Effective Engagement through Observation and Experimentation

The most fundamental and arbitrary sorts of evaluation are things like observing teachers in the classroom and having students take tests. The method of measuring is based on the instructor's arbitrary and observational judgment of the student's level of involvement in the process thus far. An outsider could also make this comment to lend some objectivity to the discussion. Researchers Linda Darling and colleagues (2012)

investigated the relationship between shifts in teacher observations and ratings and changes in student characteristics. They discovered a large amount of volatility in teachers' value-added scores from one class to the next and from one year to the following. In the classrooms of the future, the use of technology will need to be increasingly prevalent because it can boost student participation in several different ways. One of the essential advantages of using this instructional method is that the course material may be presented in a manner that is substantially more engaging and easily understood thanks to digital content such as animated presentations or videos. Learning through digital means is pleasant and helps enhance focus by introducing variety and excitement into the learning experience. It is possible to make information readily available to students so that they can study it or investigate it more at home. Concurrently, time spent in the classroom is used more effectively and is no longer wasted on reproducing lengthy chalkboard graphics. The use of digital education makes it possible to cater to the specific requirements of individual students.

Increasing Student Engagement through Surveys

A student engagement survey is like a course or class assessment. It allows students to evaluate the quality of education and their level of interest in the subject and can be utilized in writing or digitally on a multiple-choice basis. With polls, one may avoid guessing and obtain accurate student opinions. But surveys have several significant limitations. The responses are unrelated to the quality of education and are based on the student's sentiments about the teacher. Such biases and subjective judgments may also influence the process. For further information, Cristine D. et al. (2022) state that neuroscience advances have helped us better grasp the harmful effects of stress and trauma on learning. Trauma is any situation in which a person's internal resources are insufficient to cope with external pressures. It is known to have an emotional impact.

Enhancing Engagement Through the Use of Statistics

Students may benefit from critical thinking skills instruction in areas such as data organization, hypotheses, and the importance of data samples. Students' skill sets developed and used in statistics classes can be transferable to and used in various other courses and fields. Statistics can also be used to make engagement assessments. In addition to the measuring tools specified in the program, this data provides a new, unbiased perspective: exam results, attendance records, active involvement, and students' computer time. Individual systems that form an engineering degree program, according to Debra L. Hydorn (2018), may not give students with experiences in the broader spectrum of activities that characterize statistics practice. Teachers should consider designing and supervising student research projects to address this issue.

Optimizing Hybrid Education with Adequate Supplies and Effective Techniques

The engagement approaches must include specific activities that may be used to improve the quality of

education and increase student interest and engagement. Jérôme Hutain and Nicolas Michinov (2022), for example, conclude that seeing the teacher's presentation on their device and quizzing and asking enhanced students' emotional involvement between the beginning and finish of the lectures. Additionally, when just quizzing activities were offered, more students participated behaviorally to take other quizzes one week following the previous study to prepare for tests. Mark Edward Deschaine Deschaine David (2017) states that the meeting must take seven levels, as seen in Figure 5.

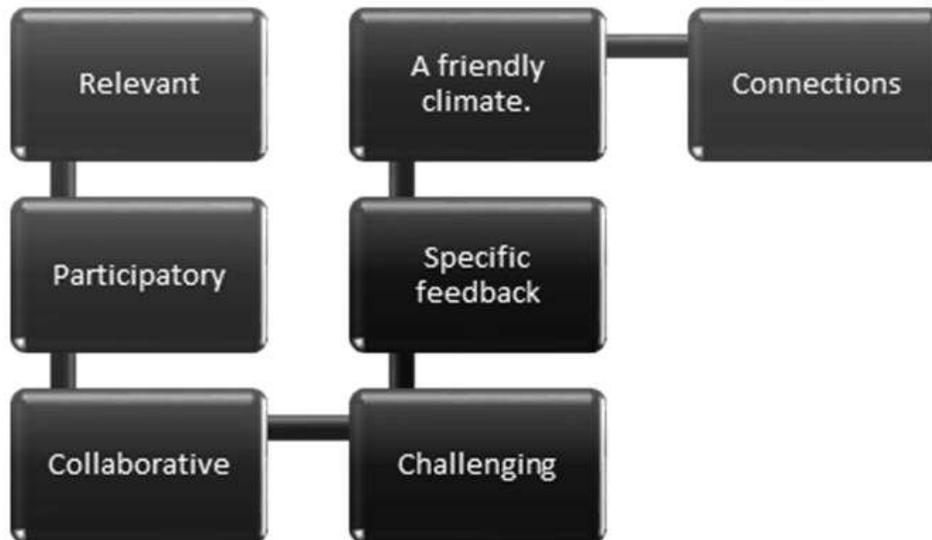


Figure 5. Students' engagement levels

Teachers can use many potential ways to promote student engagement in the classroom by boosting students' motivation, enjoyment, and interest in the material being taught. It is necessary to derive some strategy from the following options to create and evaluate student engagement:

The Activation of a Five to Ten-Minute Warm-Up Training Session before the Beginning of the Presentation

Through participation in active exercises for five to ten minutes, students need to transform their mindset from focusing solely on the perception of knowledge to concentrating on the exchange of information. A warm-up activity is a game that can be played with students and can be used by teachers and trainers. Motivate the students, wake them up (people are typically tired first thing in the morning and after lunch), and prepare them to learn by engaging their minds and bodies in activities that will make them think critically and perform physically. The warm-up period should last for around five minutes. The following are some of the many advantages of doing warm-ups in the classroom: Signal the shift when students have finished learning about one topic before beginning to study a new issue. Help new students or trainees get to know one another. Teaching strategies such as exercises to warm students up before class is crucial for competent teachers and trainers.

Moreno Rubio, C (2009), affirms that being an effective teacher involves having deep content knowledge and organizational, management, and communication skills, organizing instructions, and providing relevant assessments and fair evaluations.

Creating Fair Opportunities for All Players: Equalizing the Playing Field

It is a challenging undertaking to instruct two separate groups simultaneously. On the other hand, the group content that the teachers of the class upload to a secure area is accessible to all of the students. Tae Eun Shim and Song Yi Lee (2020) revealed that student homes and personal computers were the most preferred places and modes of involvement among college students in South Korea. The survey was carried out among South Korean college students. According to the study's findings, the learning settings of college students are critical, and the quality of the students' interactions may vary depending on the instructors—use of various technological instruments. Students who attend school at home can access them regardless of how they attend class. In a similar vein, the content of the lecture will remain the same even if students from home attend remotely. After conducting a survey, Brooke Hollister and her colleagues (2022) found that most students reported feeling more comfortable asking and responding to questions in online classes. This finding suggests that there are components of online learning that students are willing to engage with. The interactions are primarily based on Moore's three kinds: instructors, peers, and curriculum. Moreover, the types of interactions depend on factors present in the student's local environment or microsystem.

Pause for Thought: Taking a Break for Reflection

Learning almost always involves overcoming challenges, which can be frustrating but are essential to the process. This is especially true when it comes to gaining an understanding of complex conceptual ideas. However, difficulties in the learning process are more difficult to identify and address in learning contexts when teachers cannot give students individualized feedback and support due to increasing class sizes and the use of digital technology [Jason M. Lodge et al. (2018)]. This makes it more challenging to identify and address problems in the learning process. Helping children figure out who they are can be an effective strategy for encouraging them to talk freely in foreign environments. The reflection break is a straightforward and cost-free method that can be utilized to encourage reticent students to concentrate more thoroughly during the duration of the lecture.

Ensuring Student Understanding: The Importance of Regular Checking

It can be challenging to comprehend what is happening in students' thoughts, mainly when more than fifty percent are absent from class. Teachers will gain insight into their inner condition through surveys and rapid learning exams, which will also highlight the importance of feedback. According to John H. and Helen T.'s (2007) research, receiving feedback is one of the most important aspects influencing one's ability to learn and succeed. Nonetheless, this influence's outcome can be favorable or unfavorable. Consequently, the usefulness of

the feedback provided and how it is given may change depending on the circumstances. Consideration of a continuum of instruction and feedback is required to understand the goals, outcomes, and different types of feedback. At one extreme of the spectrum, providing education and feedback are two distinct but related activities, yet there is a significant gap between the two. Input in the form of exams and polls has been shown to have one of the most powerful effects on learning and achievement. On the other hand, its influence may have either a beneficial or detrimental effect (Kim & Lee, 2019). Consequently, the efficiency of the periodic check, the feedback, and how it is presented may differ. Opinion polls will rapidly reveal people's genuine sentiments while making it obvious how important feedback is.

Amplifying Teacher Effectiveness through Student Voice and Participation

According to research conducted by Dianne L. Ferguson, Amy Hanreddy, and Shawna Draxton (2011), providing students with a "voice" for active participation in decisions about their learning environment can also boost engagement as a desire to learn significantly. Of course, if you want the class to participate completely, you must ensure that everyone can hear everyone else and that the students can hear themselves. But, to participate in debates and other interactive educational activities, they must listen to what other students say (mainly if they work from home). If more focus is placed on student involvement in meaningful educational choices, reducing the power inequities frequently occurring in traditional classrooms may be possible.

Empowering Students as Conversation Monitors in Lecture

If students join a class from home, one straightforward approach to maintain their interest is to keep them engaged through the chat capabilities available on your zoom platform. According to Jane Sutterlin (2018), Zoom's classroom has developed into a powerful, indispensable, and trustworthy video conferencing technology that can be used for working, teaching, and learning. We can keep our online students if we cultivate a healthy social learning environment characterized by supportive connections between instructors and students. The primary challenge is determining how to check the chat while simultaneously attempting to transmit the content. Could you give one of the attendees the responsibility of monitoring the conversation? He can discuss any topic, respond to prior questions, and identify problems with communication.

Highlighting the Importance of Always Available Support

It can be challenging to deliver hybrid learning efficiently. The educational challenges that instructors must overcome are enormous, and this is in addition to the fact that they must constantly contend with the possibility that technology will let them down. Therefore, it is essential to have a technical support system in place to overcome obstacles and enable students to participate actively in their education. So, choose technological options that are dependable and easy to operate. And make sure that your company's information technology personnel are constantly available to help.

Discussion

Higher education institutions increasingly adopt hybrid learning environments where students participate in online and face-to-face educational activities. Students are given the opportunity to comprehend and investigate topics relevant to the real world within the context of an authentic learning experience enabled inside an online learning environment within a hybrid learning environment. "Hybrid learning," sometimes known as "blended learning," blends online learning with traditional classroom instruction. Hybrid learning aims to establish a learning environment that is both the most efficient and effective possible by integrating several modes of instruction delivery. One of the key challenges this type of training offers is maximizing student participation, which is critical for good learning results. According to Singh, J., Steele, K., and Singh, L. (2021), characteristics of this approach include student-centered teaching in which every student is required to actively participate in the content-increased opportunities for interaction between student-faculty, student-student, content-student, and student-additional learning material.

This article thoroughly examines and analyzes the many methods and approaches that may be utilized to accomplish the objective above. Several colleges have adapted to online and blended learning. Certain activities, notably laboratory-based instruction, remain on campus, while some information is given online. Substantial changes to conventional face-to-face student engagement activities are required for successful online and hybrid teaching and learning. This article begins with analyzing the theoretical underpinnings of student engagement, emphasizing its multidimensional component as well as the numerous factors that might influence it. It then investigated the various hybrid learning models and their implications for student participation. In conclusion, this study investigated multiple successful approaches to increasing students' levels of involvement in mixed classroom settings. The policies discussed in this article cover a wide range of subjects, including course design, teaching methods, the incorporation of technology, student aid, and evaluation. Effective methodologies include active learning approaches, flipped classroom models, synchronous and asynchronous communication channels, peer-to-peer learning, and personalized learning paths. In addition, the study reveals several difficulties and constraints connected to the execution of these techniques. Specific systems, for instance, may require increased resources and additional faculty and staff training. In contrast, other methods may be more suitable for some regions of study or student groups. In addition, the research underlined how important it is to continually review and evaluate the efficacy of the approaches to ensure they are successful. In conclusion, the paper summarizes several strategies that can maximize students' active participation when applied appropriately in hybrid learning environments. This study can be a valuable resource for teachers and educational institutions striving to maximize their students' learning outcomes in hybrid learning environments. This is accomplished by emphasizing the positives and negatives associated with the various strategies.

Conclusion

Communication is an essential component of the effective operation of the learning unit; however, it takes on an

even greater level of significance when the team uses communication technologies such as cameras and microphones. A student, for instance, may pose a question during the teaching units; however, he may speak too softly for students located further away to hear him. By explicitly restating the question before providing the solution, the instructor can assist online students in maintaining their focus on the presentation. Students, particularly those who engage remotely, are aided in their ability to remain attentive and focused through straightforward storytelling. Questions promote introspection and involvement, and interactive survey technologies that collect students' responses during class can energize each student in the room. Not only does this assist students in paying attention, but it also enables the instructor to obtain clear feedback on when to improve the course if certain content is unclear and needs clarification. This is a win-win situation. "hybrid learning" refers to instructing students simultaneously in person, directly within the instructional unit, and with various internet technologies. The nature of mixed groups shifts dramatically based on the curriculum being covered and the requirements of the students. The flexibility of delivery is one of the significant benefits of utilizing a hybrid curriculum. Students can get a first-hand familiarity with the topic's fundamental ideas, which need extra examination and hands-on practice in classrooms or laboratories specifically designed for that purpose. Also, you will need to repeat and reinforce previously learned material and complete all assigned activities and examinations. All of this is attainable, which makes it possible to store all educational materials in a single location and automate the process of providing training as much as possible; this includes everything from completing homework assignments for lessons to obtaining a certificate of completion for training. The instructor can organize the interaction that takes place online as well as the communication that takes place face-to-face in such a way that they complement one another.

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