



Innovative learning in Physiotherapy: A narrative review on the effectiveness of flipped classroom models

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Abstract

In higher education, there is often resistance to the use of innovative instructional strategies, which prevents them from reaching their full potential. Throughout this narrative study, we will examine the ways in which flipped classroom models have altered the landscape of physical therapy education as well as the degree to which they have been effective. In order to investigate the flipped classroom intervention from the perspectives of both students and teachers, this study makes use of data that was gathered from a physiotherapy program in Norway. There was a positive impression made by the majority of students, who placed a high value on the opportunity to participate in free-form group projects and have unrestricted access to online course resources. Even while students' final test results were equivalent to those from more traditional models, the flipped classroom approach fostered greater active involvement and in-depth comprehension of the content being taught in the class. Teachers have brought attention to the collaborative dynamics and better learning environment that are associated with the process of flipping the classroom. In conclusion, the findings of the study that was provided here lend credence to the notion that flipped classrooms are an excellent method of teaching physiotherapy since they place the focus on the individual student and integrate technology into the learning process.

Keywords: Flipped classroom, innovative learning, physiotherapy education, active learning, higher education, student-centered learning, digital pedagogy, technology-enhanced learning, teaching strategies, educational innovation

Introduction

Within the realm of higher education, pedagogical techniques that are centred on the student and that make use of technology to promote learning are increasingly becoming the standard. In the field of health professions education, there is a special emphasis on physiotherapy, and it has been determined that there is a need for educational strategies that teach students to think critically, (Gilboy *et al.*, 2015) solve issues, and utilise clinical reasoning ^[1]. When it comes to disciplines that place a significant emphasis on practical experience and self-reflection for the development of students, the traditional techniques that are focused on lectures simply cannot be tolerated. As a consequence of this, there has been a spike in the popularity of alternative educational techniques, such as the flipped classroom model, which moves the emphasis of the classroom from passive learning to active learning. The flipped classroom (FC) is a style of teaching in which students are exposed to new material outside of the classroom setting via the use of interactive modules, films, or books. The students then participate in group discussions, put what they've gained via case studies into practice, and collaborate with one another to find solutions to challenges during class time. This technique is in accordance with the competencies that are required in physiotherapy education, and it represents a considerable shift away from passively collecting information and towards actively acquiring knowledge.

Relevance of Flipped Classroom in Physiotherapy

It is essential for physiotherapy schools to provide a significant emphasis on evidence-based practice, critical thinking, and patient-centered care, in addition to providing a strong foundation in both theory and practice. According

to Røe *et al.* (2019), the flipped classroom method is able to fulfil these needs by offering adjustability, enabling students to prepare for class in advance, and promoting deeper engagement in class via the utilisation of problem-based learning, peer collaboration, and instructor facilitation ^[2]. Students enrolled in a physiotherapy program in Norway felt the flipped classroom format was fantastic, particularly the areas in which they were able to work individually in small groups and go through the course materials at their own pace. The findings of Røe *et al.* (2019) indicate that there was an increase in classroom involvement and discourse levels among both students and instructors. The quality of the learning experience was much enhanced, despite the fact that the outcomes of the examinations were not significantly different from those obtained via more traditional methods of education.

Flipped Classroom as a Model for Innovative Learning

In order for creative learning to take place within the context of physiotherapy education, it is vital to make use of digital technology as well as to rethink the educational aims and techniques that are currently being used. Students are encouraged to actively seek out, assess, and synthesise material rather than just absorbing it passively, which is made feasible by the flipped classroom model, which supports a constructivist position that encourages students to actively seek out information via active learning. According to Chen *et al.* (2017), the outcomes that are particularly beneficial in preparing physiotherapy students for clinical practice in the real world include higher motivation, improved self-regulation, and more profound learning ^[3]. Studies conducted in the fields of health sciences and medicine have shown that the implementation of flipped classrooms has the potential to improve student satisfaction, critical thinking,

and the ability to remember knowledge (Hew & Lo, 2018; Zou *et al.*, 2022). The research of physiotherapy is still in its preliminary phases; yet, with the little information that is available, it seems that flipped classrooms might be a beneficial innovation model^[4,5].

Objectives

1. To investigate and evaluate how well flipped classroom formats improve clinical reasoning, student engagement, and academic success in physiotherapy education.
2. To investigate the perspectives, experiences, and difficulties that educators and students encounter while putting flipped classroom techniques into practice in physiotherapy programs.

Research Questions

1. From the standpoint of physiotherapy students, what are the flipped classroom model's perceived benefits and difficulties?
2. How do students studying physiotherapy evaluate the differences between flipped classrooms and conventional teaching techniques in terms of their own learning outcomes?
3. How do physiotherapy instructors feel about using instructional tools and flipped classroom techniques into their lesson plans?

Methodology

A cross-over design was used to conduct an inquiry inside a musculoskeletal illnesses course that was comprised of fifteen ECTS for students in their second year of physiotherapy. The findings of this study have been included into this narrative review. There were no active learning interventions conducted during the first three weeks of the course, which consisted only of lectures. The latter three weeks of the course were a combination of the two techniques. In order to be ready for this course of study, there was an oral examination with a six-point scale and clinical practice. In all, there were forty-five students enrolled in the class.

Data Collection

Following both the traditional lecture and the flipped classroom times, the students were given the opportunity to fill out anonymous surveys that assessed their evaluations of their own learning. The poll also addressed both quantitative and qualitative elements of the respondents' experiences. Students were provided with a number scale consisting of ten points, and they were instructed to assess their own self-perceived learning outcomes for each teaching technique. There was no descriptive anchoring whatsoever. As part of an open-ended inquiry, we asked students to consider the flipped classroom model and to compile a list of three advantages and three disadvantages of the concept.

Teacher Feedback and Experience

For the purpose of gaining a deeper comprehension of the viewpoints held by the educators, three of them were contacted for informal one-on-one interviews. These talks mostly focused on the following topics: the outline of the lecture, the obligations of the seminar, and the experiences that instructors have had with technology in the classroom. Although interviews were not recorded on camera, detailed

notes were taken, which were then expanded upon at a later time. At least five years of experience in the field of physiotherapy education has been brought to the attention of each and every one of the instructors.

Structure of the Flipped Classroom Intervention

In the flipped classroom paradigm, the two most important components were digital pre-class learning tools and collaborative activities that took place during the actual class time. There were around twenty-two digital lectures that comprised the course materials. Each of these lectures lasted approximately five hours, and they were complemented with other resources such as podcasts, blog posts, and videos that were uploaded to YouTube. A minimum of one week before to the seminar, students were provided with access to these materials, which were organised in accordance with topics that were similar to those that were discussed in the classroom. The PowerPoint presentations that were used for the online lectures were created with the assistance of Microsoft Office Mix, which is a program that incorporates both audio and video. Even though the instructor was present at the beginning and the conclusion of the majority of the films, voice narration was only used for the slides shown in the videos. Access to these might be gained via a wide variety of devices, including mobile ones.

There were six seminars that lasted for a whole day and were held in the classroom. Each of these seminars dealt with a distinct subject matter, such as evidence-based treatment and chronic pain relief. Students are provided with an activity booklet for each and every session. The booklet contains questions that range from simple multiple-choice questions to more complex analyses of actual patient situations. Students worked in groups of seven for a total of five hours to complete the tasks for the seminar. This was done after a plenary session that lasted for forty-five minutes and covered difficult topics. In order to address challenging themes and ensure that everyone's concerns were addressed, there was a final plenary session that lasted for forty-five minutes. During the time when the students were working on group projects, two lecturers were in charge of the start and end sections of each one of the seminars. In order for students to complete the digital learning components, they were obliged to do so before attending the seminars. Additionally, it was conveyed to them that the group activities were of utmost importance in order to get a high score on the final examination.

Data Analysis

For the purpose of analysing student input about the benefits and drawbacks of the flipped classroom, we used frequency distributions. For the purpose of assessing the students' self-reported learning results (Tabachnick & Fidell, 2007) in relation to the two educational viewpoints, we used paired samples t-tests^[6]. In accordance with the description provided by Braun and Clarke (2006), the data obtained from teacher interviews were subjected to thematic analysis^[7]. In order to do this, it was necessary to get familiar with the data, to arrive at some basic codes, to locate themes, to evaluate them, and to eventually give each topic a name. We examined the degree to which certain themes were present across the whole data set as well as in the individual interviews. Following a series of four sessions, two of which were conducted online and two of which were conducted in

person, the initial analysis was carried out independently by two researchers. Their interpretations were then evaluated and updated in a sequence of sessions. The interactions helped clarify and confirm the notions, despite the fact that the majority of individuals agreed with them.

Result

Students' opinions

A total of 39 pupils, or 91%, responded to the questionnaires that were distributed. The investigation revealed that there were 79 positive features of the flipped classroom intervention, whereas there were 57 unfavourable aspects.

Table 1: Ranking the flipped classroom intervention's main benefits

Factor	Value
Autonomous Group-Work	40
Unlimited Access to Digital Material	20
Availability of Motivated Teachers	15
Relevant Exercises	7
Time for Reflection	6
Other	5

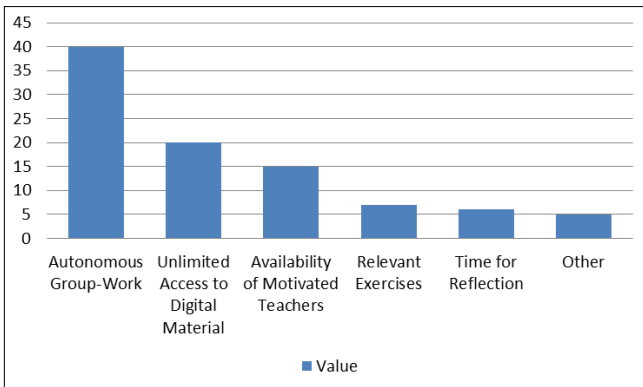


Fig 1: Ranking the flipped classroom intervention's main benefits

Table 2: Ranking the flipped classroom intervention's main drawbacks

Factor	Value
Lack of Joint Summary at the End of the Seminars	28
Long Duration of Seminars and Little Variation in Learning Activities	15
Lack of Preparation by Other Group Members	13
Other	10

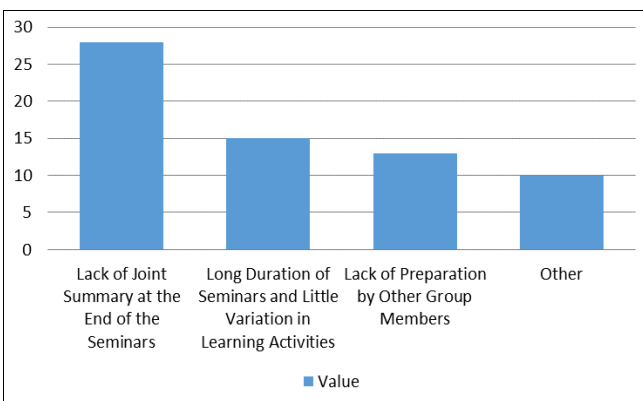


Fig 2: Ranking the flipped classroom intervention's main drawbacks

On the basis of student satisfaction, the normal lectures (mean = 5.62, standard deviation = 1.33), as well as the flipped classroom intervention (mean = 6.85, standard deviation = 1.39), were shown to have substantially different ratings ($t(38) = -4.459, p < 0.001$). The data indicate that students felt more comfortable studying in flipped classrooms as opposed to the traditional method of learning via lectures.

Teachers' experiences

There were some intriguing insights that emerged from the three interviews that were conducted with instructors on their experiences with the flipped classroom intervention. The accounts led to the development of three primary concepts: the new teaching position, the increased responsibility of students, and the digital lectures as an issue that falls under both the technical and pedagogical categories. It's important to recognise how closely these ideas are related to one another. Nevertheless, in order to make them easier to read, we separate them into their own categories.

Digital lectures

It is important to point out that the instructors reported that the process of developing the online lectures required a much longer amount of time than they had expected. Specifically, they emphasised the need of recording their lessons on many occasions since, while viewing and listening to their lectures, a variety of worries came to mind. The instructors minimised the generally negative features of activities that require a significant amount of time by emphasising the fact that new procedures often need time and, in particular, by emphasising their experiences of being inspired by the new ideas. The following is a quote from one of the professors:

I get the impression that in order to see things through to completion, we wind up spending a great deal more time than what is planned for in our plans. But I have to admit that it continues to provide me a great lot of joy. The process of seeing its development and observing the end result is enjoyable. One experiences a burst of inspiration as soon as they see the results of their efforts. (Teacher 2)

Teachers continue to find their work to be inspiring, despite the fact that the construction of digital lectures requires a large amount of time that is much longer than the resources that are allocated to them in their work plan. In addition, these findings demonstrate that the process of developing digital lectures involves more than simply the production of these lectures; it is also a pedagogical process. The instructors' evaluations of the worth of the time they spend developing these lectures tend to coincide with their positive experiences of professional development in the classroom. The instructors did not have any significant difficulties with the technical elements of the development of digital lectures, despite the fact that they found them challenging. The teachers highlight that they are familiar with technology and that their interest in it is above average. They also say that they are comfortable with it. In spite of this, they came to the realisation that there were a large lot of recording-related aspects to take into account, such as the length of time that the lectures should be and the examples that should be used to demonstrate points. The students found that conversing with the computer, as opposed to the

students, was an interesting experience. It has been said by a teacher that:

The production of digital lectures using your genuine voice in the classroom is not successful, as you are aware. You are required to be succinct in every situation. Because of this, the technical obstacles consisted of being sufficiently specific and refraining from talking about anything else in the middle of the explanation. (Teacher 3)

In the next topic, which is the duty of the teacher, we go into further depth; nevertheless, even though the instructors were discussing technical subjects, it seems that these issues are directly tied to pedagogical choices and concerns.

The new teacher role

Following the completion of the online courses, seminars were given in the classroom. Through participation in the seminars, educators were given their first taste of the flipped classroom approach. Not only did they first find their new role to be peculiar, but they were also apprehensive that their new position would be less effective than more standard kinds of education. In a summary, the professors discuss how they are used to being the ones who make the students interested about the material that they are presenting. As a consequence of this, children get the impression that they are part of a significantly different educational setting when instructors are approachable and offer them more responsibilities. Because students were not asking a sufficient amount of questions, the teachers were first worried that this method of education was not producing the desired results. The feeling of being an outsider in the seminar classroom, on the other hand, started to go away as the teachers gained used to their new position. It has been said by a teacher that:

You have never had a connection with the students that is like to this one before. After I had been used to it, they began to provide me with more regular invites to talk with them, and I quickly began to feel at ease when I participated in their group initiatives. (Teacher 1)

The lecturers commented that they had grown to enjoy taking the lead in the seminars and emphasised the need of committing time to the completion of group assignments. When students made an effort to prepare for group work, they were more likely to be assigned the role of participation in the seminar. This approach inspired a spirit of inventiveness among those who work in education. Furthermore, as these educators grew used to the flipped classroom approach, the new teaching role that they had envisioned for themselves began to take shape. During the course of this intervention, the instructors saw a significant change in the role that the student played. This is something that should be mentioned.

Increased responsibility of students

The instructors were the ones who first expressed their concerns because they were concerned about the students' ability to handle the increased freedom and responsibility that the flipped classroom approach brought about. The teachers did, in fact, see that the children's degrees of readiness fluctuated depending on the situation. Although there were students who were able to explain issues that they did not understand and were comfortable doing so, there were other students who had missed the online lectures and were unable to participate in the discussions that took place during the seminar. The conduct of the interviews

touches on the subject of how instructors should respond to circumstances of this kind. These difficulties demonstrate how the flipped classroom approach makes it more obvious to teachers that students have prepared for the class, or have not prepared at all, as comparison to the traditional traditional lecture style. However, as the students get more used to the flipped classroom style of the seminar, it seems that their level of participation and feeling of personal responsibility will inevitably rise. This is what one instructor has to say:

The group projects needed less monitoring than the individual ones did. For some reason, I was under the impression that the majority of the time, students wanted me to provide feedback or critique on the work that they had produced. On the other hand, in my experience, people were more at ease working alone for the most of our sessions, with my contribution coming at the end of the process. (Teacher 3)

When compared to a standard classroom environment, teachers have seen that students are questioning the traditional master-novice roles and engaging in a way that is more independent. On the other hand, they continue to request that the teacher go over everything and enquire about their opinions on the subject.

Discussion

Benefits and disadvantages with the flipped classroom

According to Johnson *et al.* (1998) and O'Flaherty and Phillips (2015), it has been shown that students' confidence, self-esteem, and general pleasure in the classroom may be improved by the implementation of an effort to study in groups^{[8] [9]}. The data that were provided by the students in this research provide further evidence that these findings are accurate. The data demonstrate that the students' self-perceived learning outcomes were higher in the flipped classroom intervention as compared to the traditional lectures. Students are not provided with sufficient supervision or access to the resources that are being taught in the flipped classroom model, which is another major complaint levied against this instructional approach (Figure 1). It has been found that the conclusions of this study are consistent with the findings of an Australian survey of undergraduate students majoring in social science. According to the findings of the study conducted in Australia^[10], participants placed a high value on the ability to engage in individualised learning, as well as the collaborative and planned in-person learning activities. On the other hand, it is essential to keep in mind that the Australian study, in comparison to ours, had a far wider range of in-class activities. We found it fascinating that the people who participated in our study had such a positive attitude towards independence and flexibility. This is particularly true when contrasted to their previous experiences in physiotherapy programs, in which these abilities were not given sufficient attention. Flipped classes, on the other hand, will not be acceptable to all children. According to the findings of a study that was carried out in the area of health education in Australia, it was discovered that students may be divided into two distinct groups: those who were in favour of the flipped classroom model (also known as "flip endorsers") and those who were highly opposed to it (also known as "flip resisters"). The authors (McNally *et al.*, 2016) state that in order to get better learning outcomes, it is necessary to include assessment into

the intervention, to have in-class learning activities that are anchored in theory, and to flip the whole course. Simply put, we were interested in how the participants felt about the progress that they had made in their own learning. The findings of McNally *et al.* (2016) indicate that our intervention did not adhere to the recommendations that they made^[11]. According to Bergmann and Sams (2012), one of the likely explanations for the students' typically positive feelings is that they quickly embrace the technology and the flexibility that come with the activities that take place before class^[12]. The long lectures, the absence of a shared summary at the end of the lesson, and the lack of variation in the learning activities were the most prominent criticisms that were voiced in response to the flipped classroom intervention (Figure 2).

When one considers the past, it is evident that the learning activities that were conducted for the present research did not make the most of the flipped classroom method. According to the findings of a number of studies^[13, 15], the use of a variety of tried-and-true educational activities has the potential to enhance the likelihood of success for educational interventions. According to Blau and ShamirInbal (2017), this idea is consistent with a specific form of the flipped classroom paradigm that has been changed^[16]. According to Blau and Shamir-Inbal (2017), this technique makes extensive use of technology in order to bring the flipped classroom approach to life in both the home environment of the student as well as in the classroom setting. However, we argue that the redefined flipped classroom paradigm calls for a significant amount of preparation and the availability of resources, both of which were not accessible throughout the course of the inquiry that is now being conducted. A study of the website that hosted the seminars revealed that as many as one third of the students had not previously seen the online courses that were presented prior to the seminars.

This finding is supported by the data obtained from the student evaluations, which indicate that an often-encountered problem was the lack of readiness and dedication shown by other students (Figure 2). The absence of preparation might have been caused by a number of factors, including a lack of time for independent study, a high workload, or driven motives inside the individual. To ensure that students are able to work in a methodical manner during their usual working hours, it is likely that future intervention plans should include time for students to engage in self-study. Also, there could have been more explicit communication about the expectations for the work that was done before the training. Students are required to put into exercise the responsibilities that come with being in a flipped classroom.

When working on collaborative projects, for example, it is possible for everyone to begin by providing a concise summary of the material. Because we believe that this will foster greater personal responsibility on the part of the students, we believe that it is crucial to keep the students in constant groups for the whole of the seminars. A significant number of the activities that are now being used in the classroom were designed as a result of a mix of substantial classroom experience and a strong conviction that students learn best when they collaborate with one another. Johnson and colleagues (1998) highlighted five essential characteristics of collaborative learning: social skills, group processing, individual accountability, promoted interaction,

and positive interdependence^[17]. These are the five aspects that are considered to be the most significant. One must not make the mistake of underestimating the value of the emotional and interpersonal aspects of the learning process. A recent qualitative research on flipped classroom experiences (Steen-Utheim and Foldnes, 2018) found that the comments of students about variables such as peer commitment, recognition, safety, and instructor-student relationships were very useful^[18]. Due to the limitations of our study, we were unable to evaluate whether or not these categories were equally important. On the basis of these results, it would have been preferable to keep the groups stable for the whole of the sessions. These assertions are supported by the findings of Foldnes (2016), who conducted an intervention in a flipped classroom using cooperative learning activities that are often associated with team-based learning^[19]. The study that has been conducted on team-based learning indicates that there are four essential components that have to be in place. These components include permanent teams, readiness assurance, application activities, and peer evaluation^[20, 22]. The use of quick feedback methods, which are encouraged in team-based learning, is yet another possible solution that might have been used in place of the shared summary, which was often noted by students as a disadvantage (Figure 2). In a medical education course that was intended to prepare students for practice, Thomas and Bowen (2011) found that students learnt much better when they worked in teams as opposed to smaller groups^[23].

Teacher experiences with technological education

According to Amundsen *et al.* (2017) and Kunnskapsdepartementet (2018), higher education institutions are beginning to provide greater attention to the ways in which digital technology may be used for the purpose of teaching, despite the fact that the potential is not yet being completely utilized^[24, 25]. The instructors in higher education need to play a crucial part in order to bring about a change in the system. The three primary subjects that were covered in the interviews with teachers who had participated in the flipped classroom intervention that was conducted for this study were the production of digital lectures, the new teaching role, and the new student role. The teachers said that they were taken aback by the amount of time that was required to construct the digital lectures. An Australian qualitative research study that polled 47 academics working in higher education came to the conclusion that these perspectives are consistent with the findings of the study. Every single instructor who was interviewed expressed a significant concern over the amount of time and work that would be necessary to execute the flipped classroom concept.

However, according to this study, the excitement of developing the initial digital lectures for the instructors seemed to be more important than the amount of time that was required. Despite the fact that a lack of technical skills among educators has been identified as a barrier to digital education (Schneckenberg, 2009), the teachers who participated in this study had very minor difficulties when it came to generating digital lectures^[26]. This success may have been attributed, in part, to the clear instructions provided by the teacher of the course as well as the user-friendly design of Microsoft Office Mix. It is possible that the degrees of technical expertise had by teachers in this

study were higher than those possessed by other researchers. This is the reason why we believe that other projects that are similar should give their whole emphasis to providing education and technical help. The interviews also demonstrate that the production of lectures involves a great deal of pedagogical issues, such as the quantity of examples that are provided, the usage of voice, and the length of time that the lectures are delivered. According to one instructor, it was advantageous since the digital lectures had fewer examples than the traditional counterparts.

According to a number of publications, including Adams Becker *et al.* (2017), and L.-L. Chen (2016), the flipped classroom paradigm improves interactions between students as well as between teachers and students^[27, 28]. According to the interviews, teachers experienced a new aspect of being a student and had a new side of being a teacher. They also saw other sides of themselves. The newly implemented posture in the classroom was described as being peculiar. At the beginning of the seminars, one of the teachers, who was designated as Teacher 3, expressed concern that this kind of education would not be successful. The sessions continued, however, and that began to change as time went on. "In my opinion, this method of instruction [the seminars] is significantly more motivating than lecturing," the third instructor said. The fact that both the teachers and the pupils were able to incorporate themselves into their new roles is shown by this. It is clear that this new teaching perspective calls into question long-held beliefs and assumptions about education.

There is a dearth of research with regard to the function that educators play in the process of incorporating technology into the classroom. Englund, Olofsson, and Price (2017), on the other hand, examined a longitudinal study that followed Swedish teachers for a period of ten years in order to investigate the ways in which their beliefs and practices influenced the way they taught during classroom instruction^[29]. According to the findings of the study, first-year instructors demonstrated a more rapid increase overall throughout the course of the time period compared to more experienced educators. As a method of enhancing the use of educational technology, the results of the research suggest that professional development should place a higher priority on supporting educators in altering their attitudes about teaching. Even though there was some early resistance, the teachers who participated in our study rapidly adapted to the new environment in which they were instructed. Given that they have a combined total of roughly five years of experience in the classroom, it is clear that they do not meet the criteria for novices.

An further qualitative research discovered that college instructors use five unique educational stances, ranging from those that focus on the instructor communicating information to those that place the emphasis on the students creating their own ideas^[30]. These pedagogical stances are described in the following sentence. According to the authors, if we want to make changes to the ways in which we educate, we need to have conversations about the objectives and concepts of instructors. One of the strengths of this study is that it incorporates the evaluation of the flipped classroom intervention from the perspectives of both the students and the instructors present. However, there are a few things that should be kept in mind: In the second place, since there was no control group included in the study, it is recommended that the findings be interpreted

with care when it comes to the reported learning outcomes. Another issue in the ratings of the students' experiences was that they did not use a validated tool to determine their experiences. In the third place, it is difficult to generalise the results since there were not a lot of interviews with teachers gathered. In spite of these restrictions, it is possible that more research will arise from this exploratory project.

Conclusion

This narrative research has the ability to showcase the flipped classroom, which is a learning model that has shown to be both creative and effective within the field of physiotherapy education. In terms of student engagement, self-reported learning outcomes, and overall contentment with the learning experience, a physiotherapy course that used a flipped classroom approach did better than its counterpart that was based on lectures. Learners were able to gain the independence, understanding, and responsibility that are needed in modern physiotherapy via the utilisation of digital pre-class resources and interactive in-class exercises. This was accomplished through the classroom setting. As a consequence of the use of digital lecture preparation, which initially required a significant amount of time and was challenging, the responsibilities of teachers became more dynamic and student-centered. Not only did students engage in more active participation and assume a greater level of responsibility for their own education, but instructors also saw a shift in the way they approached student instruction. The findings indicate that flipped classrooms are an excellent method for enhancing the quality of physiotherapy education, despite the fact that there were a few problems, such as students not being completely prepared and the same old uninteresting exercises being performed in class. It is recommended that future deployments be characterised by improved technical help, a greater variety of learning approaches, more stated expectations for student preparation, and more coordinated planning. The flipped classroom approach has the potential to transform physiotherapy education by putting teaching techniques in line with the requirements of healthcare education in the present day. This has the potential to be accomplished via careful preparation and execution.

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