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Increasing Student's Learning Motivation and Learning Outcomes through the Application of Participant Centered Learning (PCL) Cards

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Abstract

The Covid-19 pandemic has had significant effects in many aspects, including the world of education. The changes require an adaptation to learning methods used increasing students learning motivation. In higher education, learning methods that are student centered and lecturers only serve to give instructions. Participant-centered learning (PCL) is a learning method that is suitable for use in higher education because collage students are considered participants not just students. The purpose of this research was to analyze the impact of implementing PCL in increasing motivation and learning outcomes. This research was conducted at the Management Study Program, Faculty of Economics, Siliwangi University with 94 collage students. The data sources used were the results of the pre-test and post-test using the Kahoot! learning platform and questionnaire data using the Materials Motivation Scale (IMMS), from the control and experimental groups. In the experimental class, learning was carried out using the PCL method, while in the control class, learning was carried out conventionally or teacher-centered learning (TCL). The results of the evaluation showed that the PCL class had an average score of 47% higher than the TCL, and students' learning motivation in PCL class is also about 40% higher than students in TCL class. So it can be concluded that there is a significant increase in terms of material understanding and student learning motivation with PCL method. The learning method of PCL can be adopted to be applied in learning in higher education.

Keywords: learning motivation, learning outcome, learning method, participant-centered learning

Peningkatkan Motivasi Belajar dan Hasil Belajar Siswa melalui Penerapan Participant Centered Learning (PCL)

Abstrak

Pandemi Covid 19 telah merubah segala aspek kehidupan salah satunya pada sektor Pendidikan. Perubahan tersebut menuntut adaptasi pada metode pembelajaran yang digunakan sehingga mampu mempertahankan hasil belajar dan motivasi belajar. Pada Pendidikan tinggi dibutuhkan metode pembelajaran yang berpusat pada mahasiswa dan dosen hanya bertindak untuk memberikan intruksi. Participant-Centered Learning (PCL) merupakan sebuah metode pembelajaran yang cocok digunakan pada satuan Pendidikan tinggi karena mahasiswa dianggap sebagai partisipan bukan hanya peserta didik saja.Penelitian ini bertujuan untuk menganalisis dampak penerapan PCL dalam meningkatkan motivasi dan hasil belajar. Penelitian ini dilakukan pada Program Studi Manajemen, Fakultas Ekonomi Universitas Siliwangi yang melibatkan 94 mahasiswa. Data yang digunakan adalah hasil pre-test dan post-test berbantu platform pembelajaran Kahoot! serta data angket dengan instrumen Materials Motivation Scale (IMMS), dari kelompok kontrol dan eksperimen. Pada kelas eksperimen dilakukan pembelajaran dengan metode PCL sedangkan pada kelas control pembeajaran dilakukan secara konvesional atau Teacher-Centered Learning (TCL). Hasil evaluasi menunjukkan bahwa kelas PCL memiliki nilai rata-rata 47% lebih tinggi dibandingkan dengan kelas Teacher-TCL serta motivasi belajar mahasiswa di kelas PCL juga sekitar 40% lebih tinggi dibandingkan siswa di kelas TCL. Sehingga dapat disimipulkan adanya peningkatan yang signifikan dari segi pemahaman materi dan motivasi belajar pada mahasiswa pada kelas yang menggunakan PCL. Metode pembelajarn PCL dapat diadopsi untuk diterapkan dalam pembelajaran di pendidikan tinggi.

Kata Kunci: motivasi belajar, hasil belajar, metode pembelajaran, *participant centered learning*

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INTRODUCTION

The coronavirus (COVID-19) pandemic has had significant effects in many aspects, including the world of education. As Mailizar et al. (2020) the pandemic has severely impacted the education sector, including students, educators, and educational organizations. Lecturer and students must adapt to technology because learning activities are changed online due to restrictions on activity (Fiandra et al., 2022; Widyanto et al., 2021). Learning changes that occur are one of the obstacles, especially for students and teachers who are not used to using technology. However, most students enter the age of digital users, thus there are only a few obstacles they face in using technology. Their acceptance of technology is high to adapt quickly (Hayudiyani et al., n.d.; Santosa et al., 2021; Widyanto et al., 2021). Online learning is one of the solutions educators and students need during the COVID-19 pandemic (Fajri et al., 2021; Sharma, 2020). The pandemic has pushed every Educational Institution to online learning, even though no one is ready for this transition (Baber, 2020; Dhawan, 2020). Another obstacle faced in distance lectures is the decline in students' learning motivation. It affects the level of understanding and learning outcomes. This is due to the difficulty of lecturers in monitoring each student in distance lectures (online), so many students are not paid full attention (Rahayu et al., 2022), they don't focus on learned (Setiawan & Wicaksono, 2020). Various restrictions on activities to reduce the spread of the COVID-19 virus has ended, and teaching and learning activities have gradually started to face-to-face learning. However, many students find it difficult and lose motivation to carry out face-to-face learning. Sartika (2021) states, learning motivation is a critical factor affecting online learning, so the application of distance learning requires serious attention. Sahu (2020) states that the challenging time of COVID-19 is affecting students' mental health and motivation; teachers and lecturers must be creative and innovative in carrying out lectures to re-enhance students' enthusiasm to learn and prevent ongoing demotivation.

Learning motivation is one of the major predictors of academic achievement that is key in the training field and for well-being (Gholami et al., 2021; Karabulut et al., 2015; Yardimci et al., 2017). Learning motivation is the belief attached to individuals to guide individuals, learning goals, encourage learning behavior to make continuous efforts, strengthen cognition, and strengthen or improve learning outcomes (Lin et al., 2017; Noland & Richards, 2014; S. Sartika & Nirbita, 2021; Tokan & Imakulata, 2019). Learning outcomes will be influenced by learning models, curriculum design, and teaching (Jude et al., 2014; Nortvig et al., 2018). The learning model includes teaching materials and all aspects of the teaching process including facilities that are used directly or indirectly in the teaching and learning process. The curriculum contains teaching materials that must be delivered to students.

Innovation neede in learning, lecturer as a learning controller in the classroom can create a conducive, active, and creative learning atmosphere that is able to foster motivation in students to be actively involved in the learning process which in turn can improve the quality of learning. For that, we need real action related to improving the quality of the learning model to overcome the problem of the low quality and relevance of education. Permendikbud No. 3 of 2020 concerning National Standards for Higher Education conveys the characteristics of learning in higher education that is scientific, holistic, interactive, integrative, contextual, practical, thematic, collaborative, and student-centered, so educators need to create learner-centered learning, develop creativity and provide a variety of learning experience experiences that are in accordance with learning objectives (Kosasih, 2014). Educator-centred instruction will place students in a passive, engaged, and promote the development of superficial knowledge that does not work in the real world (Daouk et al., 2016; Owens et al., 2020). The facts show that students

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will learn more when they are actively involved in constructing knowledge, so educators should be encouraged to apply teaching methods that are able to involve and motivate students in improving the teaching and learning process (Hsu & Lin, 2015; Sartika & Nirbita, 2021).

Participant Centered Learning (PCL) as a learning method with cards system to form independent, critical, and creative students. In this method, students must be more proactive in the learning process and make reading habits necessary in attending lectures. The Participant Centered Learning (PCL) system is adapted from the teaching pattern of the world's leading business schools, including Harvard Business School (HBS), which has also been adopted by the University of Indonesia (Universitas Indonesia, 2019)The demands on students' intellectual maturity, level of independence, and students' creativity are reflected in the teaching and learning method using the Participant Centered Learning (PCL) method. Stage of Participant-centered learning in experiment class :

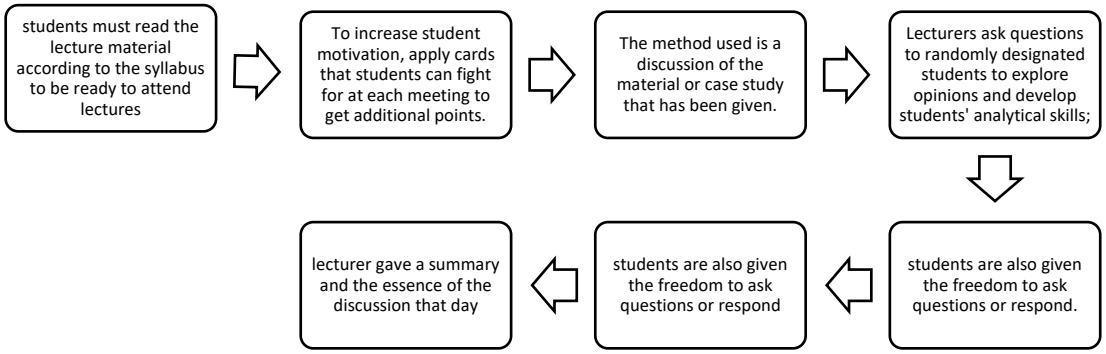

Figure 1. Stage of Participants-centered learning in class

PCL class students must read the lectures material according to the syllabus to be ready to attend lectures. The Participant Centered Learning (PCL) method is a lecture method based on student participation. To increase student motivation and make the learning atmosphere more fun, the authors apply cards that students can fight for at each meeting to get additional points. In the first hour of class, the method used is a discussion of the material or case study that has been given. Lecturers ask questions to randomly designated students. The questions asked are to explore opinions and develop students' analytical skills; students are also given the freedom to ask questions or respond. At each meeting, student activity will be assessed and given a PCL card according to the activity level of each student; the PCL card consists of 3 colors (blue, green, and yellow) with different grades. Then, in the last hour, the lecturer gave a summary and the essence of the discussion that day, accompanied by the core of the context of the material related to the application or implementation in the field. The Participant Centered Learning (PCL) method is designed so that students can be actively involved in the learning process and train and develop communication, leadership, and teamwork skills. So the teaching method is not only based on learning theory from lectures and textbooks.

The purpose of this study was to analyze the impact of implementing Participation-Centered Learning compared to conventional learning methods in increasing student motivation and learning outcomes. The novelty of this research is the application of cards in Participation-Centered Learning.

METHODS

Research method is quasi-experimental research. Thyer (2012) states a type of research design with a control group and an experimental group that is not chosen at random. The design used in this quasi-experimental research is one way pretest-posttest non-equivalent control

group design. The purpose of this research was to analyze the impact of implementing Participant-centered learning (PCL) in increasing motivation and learning outcomes. The research was conducted at the Management Study Program, Faculty of Economics, Siliwangi University. The research sample was 47 students as the control group using Teacher-Centered Learning (TCL) method or the conventional way used and 47 students as the experimental using the Participant-Centered Learning method, conducted in the Introduction to Management course module for seven meetings. The control group carried out lectures using the conventional method applied, while the experimental group carried out lectures using the participant-centered learning method. The data sources in this study used the pre-test and post-test run twice from seven meetings in the control and experimental groups; the pre-test and post-test were carried out using the Kahoot! learning platform to make the atmosphere more fun. The second data source is questionnaire data filled out by all students in the control and experiment groups to test their learning motivation using Instructional Materials Motivation Scale (IMMS). IMMS is used to evaluate learning motivation, Hauze et. all (2020) IMMS instrument was created to measure and identify issues related to student motivation in the use of independent learning materials and designed to measure the extent to which the learner is engaged in the learning experience through the elements of attention, relevance, confidence, and satisfaction.

This scale was designed by Keller and is used to measure motivation in certain situations, such as lessons, courses, or teaching (Dennis et al., 2016). IMMS is answered on a 5-point Likert scale with minimum scores are 36 and maximum total scores are180. Higher scores shows higher learning motivation (Gholami et al., 2021; Huang & Yu, 2019).

Stages of Participant Centered Learning (PCL) Methods:

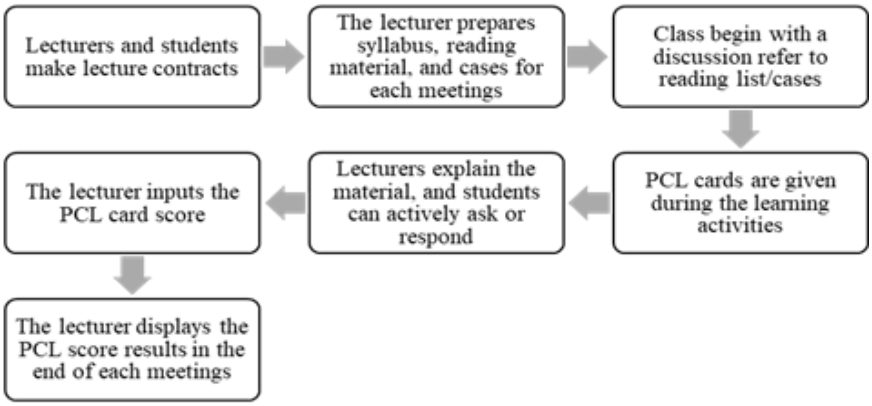

Figure 2. Stage of Participant Centered Learning (PCL) Methods

PCL stages are : (1) Lecturers and students make lecture contracts regarding learning methods in class and the proportion of PCL scores. (2) The lecturer prepares cases and materials for each meeting according to the syllabus. (3) Provide a syllabus used during learning and a list of readings along with 1 case to be studied at each meeting. When the class starts, students are expected to have studied the material and cases according to the syllabus at the meeting, so lecturers must be disciplined and guided by the material in the syllabus. (4) The class begins with a discussion or question and answer. (5) Lecturers explain the material, and students can actively ask or respond. (6) During the discussion/question and answer session or during the class, the lecturer can give a PCL card for assessment, a PCL card in the form of a card held by the lecturer, given to students in class and returned after class is over. Yellow card (equivalent to a score of 75 given to participating students), green card (equivalent to a score of 85 given to

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students who are active more than one time), blue card (equivalent to a score of 95 given to students who are active and provide answers) or knowledge and mastering the material). The card can be given in stages or directly; for example if student A gets a yellow card, then student A is more active in the class the lecturer can give another green or blue card. (7) The lecturer inputs the PCL card assessment at each meeting. During online lectures, cards cannot be given directly, so the lecturer only conveys each card students obtain and makes notes. At the end of the class, the lecturer displays the results of the card acquisition at the meeting so that students can see them transparently.

RESULTS AND DISCUSSION

PCL as a learning method has different characteristics from the TCL method. In PCL learning it encourages students to seek new information so that it trains them to carry out deeper learning literacy. The lecture plays a role as facilitating, empowering, enabling, and guides on the sides more than as a mentor in the center.

Pre-test and post-test evaluation results

The pre-test and post-test were carried out twice out of a total of 7 meetings, students were not notified regarding the pre-test and post-test, so it ran spontaneously and naturally. The pre-test and post-test used the Kahoot! Learning platform application to keep the test atmosphere fun, and the questions and materials for the pre-test and post-test were made the same.

Table 1. Student's Pre-Test Result

	N	Mean	Sig.(2-tailed)
TCL	47	36,41	0,003
PCL	47	75,15	

Source: Data pre-test with platform Kahoot!

Based on table 1, it can be seen that the average pre-test score for the experimental group (PCL class) was 75.15 and 48% higher than the pre-test results for the control group (TCL class). The data proves that the PCL class is better prepared because students are asked to read the reading list every meeting so that students can more easily understand the material in class and are ready to discuss and exchange ideas with each other, do not go to class like a blank paper and only rely on explanations from the lecturer. Meanwhile, in the TCL class, the average score for the pre-test was only 36.41, which has become the character of most students who rarely prepare themselves and only wait for what the lecturer has to say.

PCL will forces students to be active in class and have prior knowledge of the material according to the syllabus. Learning methods like this make the teaching and learning process not rigid and too conceptual. When viewed from the existing learning process, PCL or student-centered learning usually has an impact on students who are less active or reluctant to read material, that is, they do not understand the material discussed in class by the lecturer or facilitator. Assessment in PCL focuses on the activeness of students in the learning process. Students are required to be able to independently obtain knowledge from various sources, examine information by thinking critically in dealing with problems or questions, and be able to communicate with others in solving these problems or questions.

Table 2. Student's Post-Test Result

	N	Mean	Sig.(2-tailed)
TCL	47	51,49	0,003
PCL	47	92,52	

Source: Data post-test with platform Kahoot!

Table 2 shows that the average post-test score in the experimental group (PCL class) is 92.52 and is 47% greater than the average post-test score in the control group (TCL class) even though using the same material and delivered by the same teacher. This happens because PCL class students are motivated to get additional scores from the PCL card, so they are more focused on learning and excited in class.

Ukoh (2012) states that learning by starting with giving cases to students will be able to improve student achievement rather than using the conventional lecture method. Case-based learning also stimulates and challenges students more in learning, encouraging students to be independent in setting their learning goals (Adiga & Sachidananda, 2015). Another study, namely Jannah (2018), concluded that the application of learning by providing a case and demanding student activity in class had an effect on student learning outcomes and process skills

Instructional Materials Motivation Survey

Table 3. Comparisons of the total and subscales scores of IMMS after receiving TCL & PCL

Variables	Post TCL Mean (SD), n=47	Post PCL Mean (SD), n=47	Mean difference (SD)	Paired t-test	
				t	P-value
Attention	44.41 (13.88)	81.45 (11.67)	30.63 (10.22)	17.21	p < 0.001
Relevance	41.22 (16.54)	80.22 (13.37)	28.42 (11.45)	16.23	p < 0.001
Confidence	42.75 (16.44)	82.12 (12.88)	30.35 (13.46)	14.78	p < 0.001
Satisfaction	47.69 (18.88)	84.13 (16.44)	28.34 (16.48)	15.91	p < 0.001
Total IMMS	43.87 (13.67)	82.55 (11.88)	28.32 (14.32)	16.78	p < 0.001

Based on table 3, the total mean scores of learning motivation in the middle of the semester of TCL class was 43.87 (SD=13.67) and PCL class was 82.55 (SD=11.88). Significantly, all the learning motivation subscales, including attention, relevance, confidence, and satisfaction mean scores were higher on PCL class than TCL class. The paired t-test shows a significant difference between the control and experiment groups in the total score of learning motivation (t = 16.78, P = 0.000).

Attention is a form of direction to be able to consult/concentrate in dealing with students in the teaching and learning process in the classroom. Concentration and interest in learning can be seen from students whose feelings of pleasure will help in concentrating on their learning and conversely students who are in an unhappy condition will be less interested in learning and have difficulty concentrating on the ongoing lesson. Student learning disorders usually come from two factors, namely external factors and internal factors. Internal factors are factors from outside the student's self and internal factors are factors that arise from within the student. Attention is expected to generate interest, namely the tendency of the subject to remain interested in certain subjects/subjects and feel happy learning about new material and can play a positive role in the next teaching and learning process.

Relevance referred to here can be interpreted as a linkage or suitability between the learning material presented with student learning experiences. From this linkage or suitability,

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it can automatically foster learning motivation in students because students feel that the subject matter presented has direct personal benefits in students' daily lives. Students' motivation will arise and develop if they feel that what is learned meets personal needs, is useful and is in accordance with the values they believe in or hold.

Reinforcment students awareness in the teaching and learning process of students, which so far have been mostly mastered by teachers (teacher's centered) and produce memorizing words rather than the ability to learn how to learn and finally after the students graduate they can't do anything and have no ability " problem solving" in the midst of a plural, heterogeneous society and many problems, the teacher must use an effective strategy. Satisfaction referred to here is a feeling of joy, this feeling can be positive, that is, it arises when people get an appreciation for themselves. This feeling can increase the students' self-confidence later by raising the spirit of learning.

The result of this study showed that PCL methods with card is significant to improve students' motivation and learning outcomes. When studying with the PCL method, students have a daily target, namely the value of activity in class, to get a PCL card. Hence, students try to focus on the lesson and prepare themselves by reading the material that has been given independently before class. In PCL class, students actively participate, discuss and try to answer questions or express opinions. Whereas in TCL class, students will only depend on what is delivered by the lecturer in class and do not try to focus on understanding the material, students only focus on UTS and UAS scores. Hence, they tend not to pay full attention to daily learning activities. The attitude that is only oriented to the final grade has a negative impact on students, such as looking for an instant way and not trying to understand the material thoroughly.

Student learning motivation is a student's inner strength (energy) that encourages students to make efforts to achieve learning goals, besides that it shows a student orientation / direction of student behavior in achieving learning goals (Sadirman, 2018). Student PCL classes are required to have prior knowledge before joined to class, so students must carry out sufficient literacy of the material to be discussed. Gholami (2021) states that students often bored by didactic lectures and feel less responsible at class. In TCL classes, students tend to be passive, and it gets worse during online lectures where many students turn off the camera and sound; the lecturers cannot pay attention to students as a whole, so in distance lectures, lecturers are also required to be involved and be more creative (Setiawan & Wicaksono, 2020). Suparjo (2021) that learning with students the center and provides a case at the beginning of learning will encourage student learning motivation. Cards as one of the learning media make students enjoy learning and consider learning more fun.

Student learning motivation is also influenced by student interaction in class, Gandhi (2018) with card-assisted PCL it can create an atmosphere of competition among fellow students in class. It is undeniable that learning motivation is one aspect that plays a significant role in the process of achieving learning objectives and learning motivation will also influence and be influenced by the cognitive, affective and psychomotor aspects of students. learning motivation influences cognitive, affective and psychomotor aspects and learning motivation is also influenced by cognitive, affective and psychomotor aspects so it can be said that these aspects have a correlation. Learning motivation acts as a stimulus to stimulate students' interest and passion for learning, especially in higher education. If a teacher is able to design a learning situation that is able to explore students' abilities and is able to increase learning motivation and eliminate the perspective that learning is a rigid and boring process, the learning objectives will be achieved. In addition, the extrinsic factor of the learning environment in this case the teacher's role in the learning process, namely the teacher plays a very important role in arousing student learning motivation. This is because the teacher functions as a motivator, mediator and

facilitator, so the position of a teacher is very central and most important in terms of arousing student learning motivation.

Kolarski et al. (2018) states that Participants-centered learning has four benefits, (1) developing learning and independent thinking skills, (2) developing social and communicative skills, (3) encouraging self-assessment and alternative methods of assessment, (4) motivating students to study at different subjects. Participants-cenetered learning has been defined at its simplest as a learning approach in which students not only choose what to learn but also how and why that topic might be interesting, according to students' interests and relevant to life and students and lectures are responsible for the learning activities carried out.

Finding Hijazi (2020) shows that learning methods that require student activity positively increase their motivation for the material and affect student achievement in learning. PCL involves students in the learning process because the lectures only plays the role of a facilitator, in contrast to the traditional method where the lectures is the foundation and the students are the passive recipients. At the time of learning that demands students as participants will increase their confidence and make them responsible for their own learning because they can find a lot of insight or ask the lectures only when they need help.In addition, increasing the motivation of internal students (because of the interesting, fun and attractive nature of the material) is one of the main secrets that lead to extraordinary results in the educational process, because learning occurs from the needs and desires of the students themselves.

CONCLUSION

The evaluation results showed a significant increase in terms of understanding the material and students' learning motivation. The learning outcomes of the PCL class have an average score of 47% higher than that of the TCL or conventional class. Students' learning motivation in PCL class is also about 40% higher than students in TCL class. Following Permendikbud No. 3 of 2020 concerning National Higher Education Standards, where learning characteristics must be student-centered, higher education institutions should apply a Student-Centered Learning approach, one of which is the Participant Centered Learning method. PCL provides opportunities for students to be active and independent to acquire knowledge and practice communication skills. In PCL methods, students also learn to express opinions and respect others' opinions to improve students' critical thinking skills.

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