

The effect of Powtoon media and problem-based learning model on accounting student learning outcomes

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ABSTRACT

Penelitian ini bertujuan untuk mengetahui perbedaan pengaruh model *problem-based learning* dan media pembelajaran Powtoon serta interaksi pengaruh antara model pembelajaran dan media pembelajaran terhadap hasil belajar siswa. Penelitian ini dilakukan pada siswa SMK Akuntansi yang berjumlah 131 siswa. Penelitian ini dilakukan dengan menggunakan metode kuantitatif penelitian eksperimen semu dengan teknik pengumpulan data menggunakan tes hasil belajar pilihan ganda yang telah diuji melalui uji ANOVA dua arah dan dilanjutkan dengan uji Pos hoc Tukey. Pengolahan data dalam penelitian ini menggunakan SPSS 16. Hasil penelitian menunjukkan bahwa: (1) terdapat perbedaan pengaruh model *problem-based learning* yang signifikan terhadap hasil belajar siswa; (2) terdapat perbedaan pengaruh media pembelajaran Powtoon yang signifikan terhadap hasil belajar siswa; dan (3) terdapat pengaruh interaksi yang signifikan antara model *problem-based learning* dan media pembelajaran Powtoon terhadap hasil belajar siswa. Saran penelitian ditujukan kepada guru agar menerapkan pembelajaran berbasis masalah yang dikombinasikan memanfaatkan media Powtoon untuk pembelajaran siswa, sehingga siswa menjadi lebih partisipatif dalam mencapai tujuan pembelajaran. Kontribusi pada penelitian ini adalah pengaruh model PBL dan media pembelajaran Powtoon terhadap hasil belajar dengan uji ANOVA dan Uji hoc Tukey, yang biasanya hanya menggunakan satu jenis uji data.

This study aims to determine whether there was a difference in the effect of the problem-based learning model and Powtoon learning media and the interaction of the influence between the learning model and learning media on student learning outcomes. This research was conducted on students of SMK Accounting with a total of 131 students. The study was conducted using a quantitative method of quasi-experimental analysis with data collection techniques using multiple-choice learning outcomes tests that have been tested through a two-way ANOVA test and followed by the Pos hoc Tukey test. Data processing in this study used SPSS 16. The results showed that: (1) there was a significant difference in the effect of the problem-based learning model on student learning outcomes; (2) there was a significant difference in the effect of Powtoon learning media on student learning outcomes; and (3) there was a significant interaction effect between the problem-based learning model and Powtoon learning media on student learning outcomes. Research suggestions are addressed to teachers to apply problem-based learning combined with the use of Powtoon media for student learning so that students become more participatory in achieving learning goals. The contribution to this study is the effect of PBL models and Powtoon learning media on learning outcomes with the ANOVA test and the Tukey hoc test, which usually uses only one type of data test.



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INTRODUCTION

The development of increasingly advanced technology in the era of globalization as it is today having an impact on various fields, one of which is the field of education. Technological developments provide an excellent opportunity to develop educational management (Afifa et al., 2021). Education is one of the facilities humans need because, through education, humans can improve their quality to be in a better position (Sari et al., 2021). International education rankings such as PISA open up new opportunities for the world to make data-driven decisions about the effective learning process (Cairns & Areepattamannil, 2019).

The learning process is a component of education. In the learning process, interactions are formed between teachers and students. An effective learning process will improve the quality of education, which must align with the role of teachers and students. In the learning process, the teacher can play an active role in creating a learning atmosphere that can attract students so that students have high enthusiasm for following the learning process.

Teachers act as mentors, motivators, and facilitators who can encourage students so that the learning process can run in a conducive manner. Therefore, teachers need to choose a suitable learning model for teaching. Suppose the learning model used by the teacher is appropriate. In that case, it will make it easier to achieve learning objectives so that student learning outcomes will increase and the learning atmosphere will also be fun. One of the learning models that can be used is a learning model in the form of discussions that involve student activity in solving a complicated problem (Wulandari & Surjono, 2013).

One of several discussion learning models is the problem-based learning (PBL) learning model. The PBL model uses real problems as discussion material in the learning process, which students will then solve. With a learning process like this, it is hoped that students will get used to thinking critically in solving problems based on the real world. In addition, this kind of learning model also teaches students to always be active in collaborating between groups and individuals and will make it easier for students to remember the material so that it will be easier for students to understand the material. PBL is a learning model that emphasizes the full involvement of students in the learning process to find the material being studied and relate it to everyday life (Janah et al., 2018).

Oktaviani (2018) describes the PBL model as a learning model that solves problems using higher-order thinking skills. The problems presented are real problems that students can experience, so applying a learning model like this can provide significant and direct experience when solving problems that can occur in everyday life. PBL is an active and structured pedagogical approach that puts students at the center of the learning process and presents scenarios and problems for groups to research and offer appropriate solutions (Wyness & Dalton, 2018). The PBL model provides conditions for improving critical thinking skills and solving complex everyday problems. This kind of learning process requires students always to be active in learning so that learning is not only teacher-centered, but student learning outcomes will also increase.

In addition to using a suitable learning model, learning media can also affect the learning process. Utilizing this learning media is one of the efforts teachers can make to create higher-quality learning. The learning process is a communication process that takes place in learning activities, so the existence of learning media is considered quite important as a component of learning activities. According to Kresnandya (2020), the role of learning media is significant as a liaison between teachers and students, so teaching media command communication between teachers and students becomes better and can support the smooth learning process. Learning media can foster student interest in learning new things, including understanding the material presented by the teacher so that it is easier to understand. As a teacher, you must be able to choose the suitable learning media to use so that the agreed teaching objectives can be achieved.

There are lots of learning media that teachers can use during the learning process. One of the innovative and exciting media is Powtoon learning media. Powtoon learning media is animated cartoon videos that can be filled with learning materials and used as exciting and funny media. This media can attract students' attention to studying the material presented by the teacher so that students become easier to understand the material, and learning outcomes will increase (Sari et al.,

2021). Powtoon media is one of the audio-visual media. With this media, it is hoped that students can understand the material in real terms compared to books that only explain concepts. In addition, it can also generate motivation to participate in learning activities.

The Powtoon application has robust features on one screen, which can create various animations according to the required needs. In this application, several animation features can eliminate student boredom when studying material and raise the spirit of learning. Of course, animation in this Powtoon application can attract students' attention to stay focused on the learning process (Hasbullah, 2018). Powtoon could improve high-level thinking skills in students (Rahmawati & Ramadan, 2021). Powtoon's learning media is, in principle, like PowerPoint. However, its presentation is livelier because it combines audio and visual media so that students do not get bored and more effective learning. Powtoon helps students facilitate the understanding of learning materials so that learning outcomes will increase.

Learning outcomes are the results given to students in the form of an assessment after following the learning process by assessing students' knowledge, attitudes, and skills, which are marked by changes in behavior (Nurrita, 2018). Learning outcomes are students' results from their efforts to add information, knowledge, and experience. Learning outcomes can measure the extent to which students' abilities and determine what things must be done in the future to obtain maximum learning outcomes (Oktaviani, 2018).

Based on the theory of Bloom et al., (1956), The classification of educational goals refers to three types of domains inherent in students, namely the realm of thinking (cognitive), the realm of values or attitudes (affective), and the realm of skills (psychomotor). The cognitive domain includes learning objectives related to knowledge, development, intelligence, and intellectual abilities. Learning objectives in the affective domain involve changing attitudes and interests and developing appreciation and adaptation. The psychomotor domain includes behavioral changes that indicate that students have some physical manipulation abilities. In this study, the authors are interested in conducting research using Powtoon media and PBL models that are applied to basic accounting subjects, especially in the adjusting journal sub-chapter, and their effect on learning outcomes in the cognitive domain.

According to the results of interviews with accounting teachers at SMKN G, teachers still apply conventional learning models. This results in some students being less active during learning and paying less attention to the material presented by the teacher because students feel bored, causing students to have difficulty doing practical. After all, they need help understanding the material that the teacher delivers. When conducting observations in class, it can be seen that students during the learning process are considered to be less active and busy with their activities, so they quickly lose focus and ignore the teacher when delivering material.

Based on the description above, to solve the problem, it is necessary to find learning techniques that pay attention to student learning outcomes so that students can understand the material and be active, creative, and fun in the learning process. PBL models and Powtoon media are expected to improve student learning outcomes. The learning model plan is the right strategy used by teachers to be applied to the basic accounting learning process. The update in this research lies in the use of Powtoon learning media to assist in delivering material to be involved in the learning process. This study aims to determine whether there are differences in the effect of the PBL learning model on student learning outcomes, the impact of Powtoon learning media on student learning outcomes, and the interaction effect between learning models and learning media on student learning outcomes.

METHOD

This research is quantitatively based on its natural level, including experimental research. The research design used in this study is a quasi-experimental design with a research design using a 2x2 factorial design approach. Students were divided into four groups. The first group was treated with PBL learning model implementation with Powtoon and non-Powtoon media, while the second group was given conventional learning using Powtoon and non-Powtoon media.

In line with the hypothesis to be tested, namely the difference in the effect between PBL and conventional learning models on learning outcomes, the impact between Powtoon and non-Powtoon learning media on student learning outcomes, and the interaction effect between learning models and learning media on student learning outcomes. Table 1 shows the 2x2 factorial design experimental design.

Table 1. Factorial Design 2x2

Average	Learning Model		Average
Learning Media	PBL (A1)	Conventional (A2)	Total Rows
Powtoon (B1)	A1B1	A2B1	B1
Non-Powtoon (B2)	A1B2	A2B2	B2
Column Total	A1	A2	Total Columns and Rows

As reported in Table 1, the total population in this study consisted of 131 students. The sample of this research is all students of class X AKL in SMKN G. The sampling technique uses saturated models, or all members of the population are sampled. The data collection instruments were observation, interviews, documentation, and learning outcomes tests. Test the validity and reliability of the question instrument are declared valid and reliable. The questions on the learning outcomes test instrument are in the form of multiple choice with 20 queries. The questions are arranged based on the syllabus and lesson plans from the school to evaluate the cognitive aspects of learning outcomes. The data were analyzed using the two-way ANOVA and continued with the Tukey test.

RESULTS AND DISCUSSION

Results

The survey data was processed using a two-way ANOVA. The results explained the average aspect for the four groups of students. Before performing the ANOVA and Tukey tests, several assumptions must be met, including: 1) Kolmogorov Smirnov Normality Test; and 2) Levene's Homogeneity Test, each of which was calculated using the SPSS 16 for Windows application. The results of the requirements analysis test showed that the research data were normally distributed and homogeneous. Table 2 shows the average value of learning outcomes for various groups.

Table 2. Recapitulation of Calculation Results of Learning Outcomes

Average	Learning Model		Average
Learning Media	PBL (A1)	Conventional (A2)	Total Rows
Powtoon (B1)	82,79	71,09	77,12
Non-Powtoon (B2)	74,56	65,81	70,38
Column Total	78,68	68,49	Total Columns and Rows 73,66

Two-way analysis of variance was used to examine the main effect of the PBL learning model and the conventional learning model and the interaction effect of the learning model and learning media on the learning outcomes of class X students of SMKN G. The calculation of the ANOVA test used SPSS 16 for Windows software. The results of data analysis with the ANOVA test and Tukey test can be seen in Table 3.

From Table 3, the results of data analysis in the learning model group between the use of the PBL model and the conventional model obtained the Fcount of 51.888. At the same time, Ftable at the significant level (sig) = 0.05 is known to be 3.07. The results of the significance test (sig) of 0.000, based on the test criteria if Fcount > Ftable (51.888 > 3.07) or the significance of the test results (sig) < significant test level (0.000 < 0.05), then there is a considerable difference. It can be concluded that H0 is rejected, which means that there is a difference in the effect of accounting

learning outcomes between students who are taught with Problem-based Learning and Conventional learning models.

Table 3. Summary of Two-Way ANOVA Test

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	4985.082a	3	1661.694	25.215	.000
Intercept	707788.636	1	707788.636	1.0744	.000
Learning Model	3419.514	1	3419.514	51.888	.000
Learning Media	1494.794	1	1494.794	22.682	.000
Learning Model * Learning Media	8369.449	3	1661.694	25.215	.000
Error	8369.499	127	65.902		
Total	726425.000	131			
Corrected Total	13354.580	130			

In **Table 3**, the results of data analysis in the learning media group between the use of Powtoon and non-Powtoon media obtained Fcount results of 22.682. At the same time, Ftable at a significant level (sig) = 0.05 is known to be 3.07. The significance test (sig) results are 0.000 based on the test criteria. If Fcount > Ftable (22.682 > 3.07) or the significance of the test results (sig) < significant test level (0.000 < 0.05), then there is a considerable difference. It can be concluded that H0 is rejected, which means that there is a difference in the effect of accounting learning outcomes between students who are taught with Powtoon and non-Powtoon learning media.

From **Table 3**, the results of data analysis on the interaction between learning models and learning media obtained Fcount results of 25.215. At the same time, Ftable at a significant level (sig) = 0.05 is known to be 3.07. The results of the significance test (sig) of 0.302, based on test criteria if Fcount < Ftable (25.215 > 3.07) or the significance of the test results (sig) < significant test level (0.000 < 0.05), then there is a considerable difference. It can be concluded that H0 is rejected, which means that there is an interaction of student accounting learning outcomes between the learning model and the learning media. A follow-up test or Tukey test is carried out to determine which of the average student learning outcomes of each group is significantly higher as shown in **Table 4**.

Table 4. Tukey Test Calculation Results

	(I) Interaksi	(J) Interaksi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	A1B1	A1B2	8.24*	1.969	.000	3.11	13.36
		A2B1	11.70*	1.999	.000	6.50	16.91
		A2B2	16.99*	2.016	.000	11.74	22.24
	A1B2	A1B1	-8.24*	1.969	.000	-13.36	-3.11
		A2B1	3.47	1.999	.311	-1.74	8.67
		A2B2	8.75*	2.016	.000	3.50	14.00
	A2B1	A1B1	-11.70*	1.999	.000	-16.91	-6.50
		A1B2	-3.47	1.999	.311	-8.67	1.74
		A2B2	5.29	2.046	.052	-.04	10.61
	A2B2	A1B1	-16.99*	2.016	.000	-22.24	-11.74
		A1B2	-8.75*	2.016	.000	-14.00	-3.50
			A2B1	-5.29	2.046	.052	-10.61

The Tukey test results show a significant difference between the average learning outcomes of students taught using the PBL model using Powtoon media compared to students who

use non-Powtoon media (A1B1: A1B2). The results of the calculation $F_h = 8.24$ and the value of $F_t = 4.13$ at the significant level = 0.05. It can be concluded that the learning outcomes of students taught with the PBL model with Powtoon media are significantly better than those taught using non-Powtoon media.

The Tukey test results show a significant difference between the average learning outcomes of students taught using the PBL model with Powtoon media and those taught using the conventional model (A1B1: A2B1). The results obtained are $F_h = 11.70$ and $F_t = 4.13$ at the significant level = 0.05. When comparing the value of $F_h > F_t$ ($11.70 > 4.13$) and the results of the test significance ($\text{sig} < \text{considerable level of relevance}$) ($0.00 < 0.05$). It can be concluded that the learning outcomes of students taught with the PBL model with Powtoon media are significantly better than those taught using the conventional model.

The Tukey test results in [Table 4](#) show a significant difference between the average learning outcomes of students taught using the PBL model with Powtoon media and those taught using conventional models with non-Powtoon media (A1B1: A2B2). The results obtained are $F_h = 16.99$ and $F_t = 4.13$ at the significant level = 0.05. It can be concluded that the learning outcomes of students who are taught with the PBL model with Powtoon media are significantly better than those taught using conventional models with non-Powtoon media.

The Tukey test results show a significant difference between the average learning outcomes of students taught with non-Powtoon media using the PBL model compared to the conventional model (A1B2: A2B2). The results obtained are $F_h = 8.75$ and the value of $F_t = 4.13$ at a significant level of = 0.05. It can be concluded that the learning outcomes of students taught with the PBL model with non-Powtoon media are significantly better than those taught using the conventional model.

The Tukey test results show no significant difference between the average learning outcomes of students taught using conventional models using Powtoon media and those prepared using non-Powtoon media (A2B1: A2B2). The results obtained are $F_h = 5.29$ and $F_t = 4.13$ at the significant level = 0.05. It can be concluded that the learning outcomes of students taught using conventional models with Powtoon media are significant if using a significance level of 0.05. It is stated that there is no difference between students who are taught using non-Powtoon media. However, a substantial level of = 0.10 significantly differs from conventional learning models using Powtoon media introduced with non-Powtoon media.

Discussion

Effect of Powtoon Media on Student Learning Outcomes

Overall Powtoon media is considered more effective in improving student learning outcomes. The results of the descriptive analysis presented in [Table 2](#) show differences in learning outcomes between students using Powtoon media and non-Powtoon media. This is supported by the results of the ANOVA test presented in [Table 3](#), which shows significant differences in the results of learning media on learning outcomes then continued the Tukey test presented in [Table 4](#), showing the effects that Powtoon learning media produces higher scores when compared to the media non-Powtoon.

The role of learning media is significant in the learning process. Learning media can increase the effectiveness of communication and facilitate the delivery of material presented by teachers to students. [Nurwidayanti and Mukminan \(2018\)](#) stated that using learning media can be helpful in the learning process because it can improve learning outcomes. Because of the importance of media during the learning process that can support success in improving learning outcomes, it is indispensable to optimize the utilization and use of learning media. Teachers need to innovate to keep up with the times by creating or using advanced IT-based learning media like today. [Skhepehe and Matashu \(2021\)](#) reveal that accounting classrooms must keep up with rapid technological changes because technology affects students' learning styles which are ultimately aligned with the demands of the world of work.

One of the media that teachers can use to innovate in the development of a more exciting and more modern era is by using Powtoon media. Media Powtoon is a SaaS (Software as a Service) based animation presentation media processing software that can be accessed online. Using learning media in teaching and learning can generate new enthusiasm and interest and motivate and encourage students to learn. [Aliyah and Purwanto \(2022\)](#) state that using Powtoon media in education can make students look more focused on the material presented by watching learning video shows, and students better understand the learning material that the teacher has delivered.

By using Powtoon media, it can produce an IT-based learning media for the delivery of more exciting and modern materials. Materials can be presented with various interesting effects with unique cartoon animations. These efforts are expected to improve the quality of learning so that students are not bored and are more motivated to study the learning materials presented by the teacher to enhance student learning outcomes. The use of Powtoon media during learning will increase student motivation for the better. Students quickly understand the learning material so that student learning outcomes become improved. This is in line with research by [Kresnandya \(2020\)](#) and [Pambayun et al., \(2021\)](#) that the learning process using Powtoon media affects improving learning outcomes.

The advantage of learning using Powtoon media compared to not using Powtoon is that with this media, learning becomes more exciting, and students will become active. This media can also increase student motivation to participate in learning ([Suhendra et al., 2018](#)). The use of Powtoon media in the learning process has proven effective and can encourage students to understand learning materials to improve learning outcomes.

The Effect of the PBL Model on Student Learning Outcomes

Using learning models can also affect the learning process in choosing suitable learning media. Teachers must constantly innovate in teaching, and learning activities, including selecting the learning model used when teaching. [Table 2](#) presented the results of the descriptive analysis, which shows that the average value of the class that uses the PBL model is higher than that of the conventional model. This is supported by the results of the ANOVA test presented in [Table 3](#), showing significant differences in the results of the learning model on learning outcomes, and then continued with the Tukey test presented in [Table 4](#), indicating that the PBL model produces higher scores than the conventional model. The PBL model is considered more effective in influencing student learning outcomes than the traditional model.

The PBL learning model is a learning model that uses real problems to be solved by students according to the learning materials, both individually and in groups. In Bloom's theory, the classification of educational goals refers to three types of domains (domains) attached to students, namely the realm of thinking (cognitive), the realm of values or attitudes (affective), and the realm of skills (psychomotor). The cognitive domain includes learning objectives related to knowledge, development of intelligence, and intellectual abilities. Learning objectives in the affective domain include describing changes in attitudes and interests and developing appreciation and adaptation. The psychomotor domain includes behavioral changes that indicate that students have some physical manipulation abilities ([Bloom et al., 1956](#)).

The study results showed that students' cognitive learning outcomes in classes using the PBL learning model were higher than in types using conventional models. This is because, in the PBL class, students acquire basic knowledge and concepts from learning materials and students are also more skilled in developing the ideas of knowledge gained. In conventional courses, students' knowledge is still fully teacher-centered, where students only get information about learning concepts. The learning process using the PBL model starts with authentic (real) problems that can train students to think critically in solving a problem and cultivate students' skills in solving a problem through individual or group discussions ([Saputro & Rayahub, 2020](#)). In line with that, [Ulger \(2018\)](#) revealed that using the PBL learning model can hone students' skills so they can solve non-routine problems they face when working.

From the explanation above, using the PBL learning model can better influence student learning outcomes than the conventional model. Learning using PBL is considered more effective

and fun because of the steps in learning that can affect students to learn to solve problems. These steps include expressing opinions, working together in groups, seeking information, asking questions or ideas, answering questions, and communicating the discussion results. This is in line with [Hardiyanti et al., \(2016\)](#) that the analysis of students' cognitive learning data obtained from giving the final test showed differences between classes taught using the PBL learning model and types taught using conventional models. Students get different average learning outcomes.

While the use of conventional models of students has less role in learning, the learning process is only dominated by the teacher. It makes students get bored quickly in participating in education. Students will find it difficult when doing practicum because they need to examine further the material presented by the teacher, resulting in decreased student learning outcomes. According to [Niak et al., \(2018\)](#), in the conventional learning process, the difficulties encountered in the learning process are not only by students but also by teachers. The teacher uses the lecture method, so students quickly feel bored following the lesson. This causes students to be lazy to study and become passive and can reduce student learning outcomes.

Interaction of Effects between Powtoon Media and PBL Models on Student Learning Outcomes

From the results of the ANOVA test presented in [Table 3](#), there is an interaction effect between the learning media and the learning model. Media Powtoon is software in the form of animation to create presentations and videos in the form of spirits that can be accessed online and used easily and quickly. While working on Powtoon, we can include various images, music, and other recordings and sounds. The existence of Powtoon media in the learning process is to attract students' attention to accept the material presented by the teacher. Various Powtoon animations can influence students to focus more on understanding the learning material. Powtoon media provides freedom in determining the theme of learning, and the material presented can use language that is easier to understand ([Laili et al., 2022](#)).

While the use of the PBL learning model in the learning process is used to train students to be more active and think creatively in solving problems. PBL material is taught based on everyday life, so students are expected to understand the material well. Through the PBL model, students can improve their understanding because this model directs students to find ways to solve problems in learning materials ([Kharisma et al., 2022](#)). In implementing PBL learning, one must also pay attention to the media used because the PBL model is more effectively taught to students who use Powtoon media. This is evidenced by the significant difference in the average learning outcomes of students who use Powtoon media compared to non-Powtoon media.

Selecting a suitable learning model and using appropriate media can create an effective, creative, innovative teaching and learning atmosphere. [Serdyukov \(2017\)](#) revealed that increasing the quality and scale of innovation in education would positively impact education and benefit society. Students also do not feel bored during learning and readily accept the material provided by the teacher. This study used problem-based learning models and Powtoon learning media in problem-solving. This was confirmed by [Qurohman and Sungkar \(2018\)](#) that the use of problem-based learning models and Powtoon media could have a good impact on increasing student interest in learning activities, which can indirectly improve student learning outcomes.

Accounting learning outcomes are mastery of student competencies seen from the cognitive domain in basic accounting subjects as indicated by the test scores given by the teacher. Cognitive learning outcomes measured in this study include C1 – C4. With the PBL learning model, students have the responsibility of learning, teaching, and being taught by fellow students and broad opportunities in groups to debate, discuss, and argue, which in the end, students are motivated to improve their learning outcomes to the maximum.

CONCLUSION

Based on the results of data analysis and discussion of research results, it can be concluded that there is a significant difference in the effect of the PBL learning model on student learning outcomes. This means that the PBL learning model is more effectively taught than the conventional

model. There is a significant difference in the effect of Powtoon learning media on student learning outcomes. This means Powtoon learning media can improve student learning outcomes compared to non-Powtoon media.

There is a significant interaction effect between the learning model and learning media on student learning outcomes. This interaction can be seen in PBL learning, which is more suitable or effectively taught to students who use Powtoon media than non-Powtoon media. In learning basic accounting, students who use Powtoon learning media taught using the PBL model are more effective than conventional models. The traditional model cannot be statistically confirmed if introduced with non-Powtoon media because the significance test results show a difference, but it is small when viewed from $df = 5\%$.

The limitation of this study is that the conventional model cannot be statistically confirmed if taught using Powtoon media because the significance test results are not much different when viewed from the 5% significant level. However, if it is seen from the considerable level of 10% of the significance test results, it can be said that there are differences in learning outcomes. This is a factor to pay more attention to for future research.

Suggestions were submitted for accounting teachers at SMKN G, in particular, to apply the PBL learning model in the learning process and use Powtoon media because the model and media were considered more effective and suitable for students to understand learning materials to improve their learning outcomes. Students are expected to have the opportunity to be active and have general opinions during learning. Suggestions were also submitted to the principal to provide learning facilities and infrastructure that support improving student learning outcomes. Principals should also always motivate teachers to improve the quality and professionalism of teaching.

CONFESSION

The researcher would like to thank all those who have helped in the data collection process and the respondents willing to take the learning outcomes test and fill out the questions on the learning outcomes so that the results obtained are by the reality experienced in the field. The author realizes that there are still many things that still need to be improved in future research. This becomes a limitation and a factor for future researchers' further attention.

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