The Effectiveness of Instructional Aids in Assisting Students to Understand Concepts in Principles of Accounting

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**Abstract:** This study was conducted to determine the effectiveness of instructional aids in the teaching and learning (T&L) of Principles of Accounting among form four students. This is quasi-experimental study involving 60 form four students in a secondary school in Klang, Selangor. The instructional aids utilized are concept charts, brief notes, powerpoint slides and supported by the text book. Pre-test and post-test were conducted to assess students’ performance before and after the treatment. The findings of the study found that the performance of experimental group is significantly better than the control group using the traditional approach. Consequently, the positive impact of using various aids in T&L cannot be denied. Teachers should take the time to incorporate instructional aids in T&L to assist students learning. School administrator must provide the facilities required to encourage teachers to employ instructional aids in T&L.

**Keywords:** Teaching and learning, Accounting, Experimental, Achievement, Instructional aids

1. Introduction

Education is an important element in building human capital quality. The National Philosophy of Education (FPK) formulated by the Ministry of Education (MOE) has become a policy in the education system in Malaysia. It serves to ensure the goals of national education are in line with the needs of the country in producing human capital who are able to contribute to harmony, prosperity and development of Malaysia towards a developed country.

Malaysia strives to design an effective education plans and systems in an effort to develop the country. The government has implemented various policies and initiatives to ensure national education emphasize aspects of the development of individual potential as a whole in order to produce first-class human capital. The first-class human capital are expected to play important roles in developing the country economically, politically and socially. Human capitals in the field of accounting contribute directly to help realizing the dream of the country in producing first class-minded citizens. Mohamad Azmi (2012) said that, all knowledge in the world drives towards the development of world civilization. The subject of Principles of Accounting is an elective subject for form four and five in the Integrated Secondary School Curriculum (KBSM).

The mission and vision of the national education system will not be achieved without the involvement of the individuals being the main pillar of an effective education system, namely educators or teachers. Teachers play an important role in the teaching and learning process (T&L) in response to the country's desire to become a developed country. It is the responsibility of the teachers to educate the students as best they can. According to Anis Fadzlin (2012), the main task of a teacher is to facilitate students' learning. Learning will be easy if the teachers adapt the teaching method to the various intelligence of the student.

Achieving an effective T&L session is not an easy task because it requires seriousness and wisdom. Teachers need to be wise to determine appropriate T&L strategies for use in the classroom. The use of audio visual aids in learning or better known as instructional aids is one of the initiatives that can make T&L easier and effective. The use of instructional aids can help teachers explain facts, processes and concepts more accurately than oral explanation (Abdul Rahim & Hayazi, 2011). To ensure effective teaching, teachers should use a variety of techniques so as not to produce horizontal teaching. Effective teacher is also capable to diversify teaching methods, provide instructional aids, and deepen content to be taught. In recent development, globalization and technological advancement also have an impact on the national education system. Apart from traditional teaching or better known as the ‘chalk and talk’ method, there are various other initiatives and teaching methods that can be used by Principles of Accounting teachers in delivering lessons to students.

Although various facilities are provided in schools to facilitate the use of instructional aids, Lim Zi Ling (2012) stated that in the Principles of Accounting subject, the teachers prefer to go for the traditional approach.
Various reasons such as time constraint, content difficulty and students' weakness were given for the lack of use of instructional aids in delivering the subject.

2. Problem Statement

Innovations and technologies have led to diversity in teaching methods and instructional aids, yet the T&L in Principles of Accounting is still focusing on the traditional, teacher centered approach (Lim Zi Ling, 2012). Lim Zi Ling mentioned that in the history of education in Malaysia the method commonly used in T&L sessions in schools is the traditional method whereby the teacher acts as a communicator of information, and the student acts only as listener or recipient of information. Apart from that, a study conducted by Fadzli and Ranjit Singh (2012) found that textbooks are still the only supporting material in T&L. Chin Han Wei (2012) in his study found that there are still many teachers in Malaysia that do not use instructional aids in teaching, causing the T&L process in the classroom becomes boring and affects students' comprehension as well as achievement. Although the use of traditional approaches is common in Principles of Accounting, not all students can follow lessons delivered through the approach. The achievement of students in Malaysian Certificate of Education (SPM) for year 2018 and 2019 (Lembaga Peperiksaan, 2020) shows a decrease in the percentage of students scoring grade A+, A and A-(from 35.3% in 2018 to 34.5% in 2019) for the subject. The percentage of students who achieved grade B+, B, C+ and C is also high compared to the percentage of students who got excellent grades.

Past research showed that student achievement in various discipline can be accelerated using various teaching aids. The diversity of instructional aids in T&L sessions could increase student understanding and can attract their interests in learning. Yahya and Noor Al Mahdin (2010) say that students who are interested in things learned will usually show high achievement. Therefore, this research proposes that achievement in Principles of Accounting can be increased if the teachers use instructional aids to enhance students' comprehension of the subject.

3. Objectives of the Study

i) Identify the effectiveness of the use of instructional aids in the T&L process for Principles of Accounting subject compare to traditional teaching approaches.

ii) Identify achievement differences that may exist between students using an instructional aids teaching approach and students who are taught using traditional methods.

4. Research Questions

i) Is learning and teaching using instructional aids more effective for the subject of Principles of Accounting than the traditional teaching approach?

ii) Is there a difference in academic achievement between students who are taught using an instructional aids approach compare to students who are taught using traditional methods?

5. Research Hypotheses

Ho1: There is no significant difference between the mean scores of pre-test and mean scores of post-test in the experimental group.

Ho2: There is no significant difference between the mean scores of pre-test and mean scores of post-test in the control group.

Ho3: There is no significant difference between the mean scores of pre-tests in the control group and the experimental group.

Ho4: There is no significant difference between the mean scores of post-tests in the control group and the experimental group.

6. Theoretical Framework of the Study

The theoretical aspect of the study is an adaptation of effective teaching model put forward by Slavin (1987). Slavin said that there are four factors influencing effective learning namely, quality of teaching, appropriateness of teaching level, incentives and teaching time. For the purpose of this study, the researcher only focus on one factor which is the incentive factor. The incentives intended in the Slavin model is the ability of teachers to motivate students to learn and complete the assigned tasks. Among the ways that teachers can do to increase
students motivation is by providing interesting and fun learning environment through the use of instructional aids.

Another theory that supports the relationship between the use of instructional aids with student academic achievement is Slavin and Dale's Cone Experience theory. In the T&L process, students go through experience learning created based on content interaction lessons, teaching methods and teaching materials used. Consequently, the learning outcomes obtained are in the form of knowledge, understanding, attitude, new interests, experiences and skills available to students (Fraenkel, Wallen & Hyun, 2018). In short, there is a relationship between the learning process that takes place in the classroom with the learning outcomes that will be derived from the learning process. This theory gives the impression that there is a relationship between the use of instructional aids in the T&L process with the academic achievement of students in the subject.

7. Limitation of the Study

The research has several limitations. The first limitation is related to the selection of the study sample. The sample for this study are two groups consisting of 60 students who have been assigned to the respective group by the school. During the study, the researcher found that student attendance was often incomplete. This situation can give undesirable impact on the results of the study. This is because, if the students do not attend school, the student will have difficulty understanding the topic discussed during his/her absence. This may have a negative impact on the student's achievement during post-test, thereby, reducing the mean scores. Teaching time for the subject is limited to 35 to 70 minutes. There are times when the researcher needs longer time in order to achieve the teaching objectives of the day.

8. T&L Approach

Instructional aids is defined as a material used in T&L processes to help teachers deliver teaching more effectively and efficiently. Mohd Musa (2011) defines instructional aids as all the equipment that can assist teachers and students in their efforts to deliver lessons. Norasiah, Nor Risah Jamilah and Rosnah (2013) define instructional aids as tools that can make teaching in the classroom more interesting, fun and more effective. Earlier classification of instructional aids are material pictorial and graphic, hearing aids, projectors and hearing aids (Abdul Ghani, Abdul Rahman & Abdul Rashid, 2007). However, Norasiah, Nor Risah, and Rosnah (2013) classify teaching media that can be used as instructional aids to printed media, non-printed media, broadcast media and non-broadcast media. The instructional aids included in this study are related to the subject of Principles of Accounting, designed or adapted and used by teachers. Instructional aids used by teachers throughout this research include concept charts, brief notes and power point slides. Ruzita (2011) defines traditional teaching approach as “… methods commonly used by teachers in delivering the content of the lesson to students”. Teachers will deliver lessons and students will listen to all the information presented and make notes of the information and related important contents. Traditional teaching in this study refers to the teaching approach using basic materials such as the whiteboards and textbooks.

9. Student Achievement

Student achievement is a result of behavior changes. Winkel (2007) states that student achievement as one positive changes of an internal nature such as students’ understanding and attitudes which is external in nature, such as foreign language skills. Learning achievement can be expressed as the level of ability of students in mastering some competencies learned in the learning process. Specifically, student achievement can also be defined as an individual achievement after experiencing the learning process for a certain period (Sri Hartantiningrum, 2009). Student achievement in this study is the achievement of control and experimental groups in the pre and post-tests. The questions for the tests are based on the contents in Accruals and Prepayments topic. Each set of questions contains 20 multiple choice questions.

10. Literature Review

Instructional aids is said to affect communication process and interaction between teachers and students. Bastable, Gramet, Jacobs and Sopczyk (2011) refer to instructional aids as a vehicle to communicate information and achieve the set teaching objectives in the T&L process. According to Smaldino, Lowther and Russell (2012), instructional aids is a specific tool that can be applied in the T&L process and able to affect students learning. It serves as a medium to channel information from the sender to the recipient so as to stimulate thoughts, feelings, attention and student interest until there is an improvement in the learning process.
Instructional aids has a great influence in T&L process and strive to be an effective and efficient teaching tool and resource (Ngonyani, 2018; Norasiah et al., 2013). The use of instructional aids in T&L sessions can make teaching delivery is clearer, more accurate and able to help teachers stimulate students for fun learning (Bastable, Gramet & Jacobs, 2011). When students have interest in learning, they can achieve academic excellence. The use of appropriate instructional aids that is done regularly will give positive impact on T&L as well as being able to save delivery time. With instructional aids teachers can explain better as well as making it easier for students to understand what is presented (Norasiah et al., 2013; Tan Choon Keong & Carol, 2013). The T&L process is capable of creating a deeper understanding among students (Norlia, Rohaila, Rulsiza & Zuriahah, 2019). Students understanding can be assured if teachers use skills and creativity to produce instructional media that is interesting, interactive and in accordance with the correct curriculum syllabus. The use of visual aids and other interactive technologies, such as clickers and Dreambox, significantly improves mathematical performance (Brewer, 2016). In addition, a study conducted by Pram and Suparman (2013) also found that the use of instructional aids in the form of Micromedia Flash 8 can increase student achievement. The audiovisual aids application during “The Social Studies: Economics and Law” course make the teaching and learning process more meaningful, interesting, emotional, clearer and more effective (Akhnets mishin, Ibatullin, Gapsalamov, Vasilev & Bakhvalov, 2019).

Studies on the effectiveness of instructional aids in business-related disciplines are rarerly performed. However there are various other studies in other subjects involving the use of instructional aids. In line with the passage of time and technological advances, many researchers have made relevant studies with the use of information and communication technology (ICT) as instructional aids in T&L process. Lawal and Victor-Akinyemi (2018) found significant positive effects of instructional aids on students’ achievement in Economics in two schools in Kwara State, Nigeria. Research by Okoye, Nwobodo dan Osuji (2019) concluded there is a significant difference between the mean achievement scores of students taught using teaching aids and those taught without the use of teaching aids.

Despite the lack of research conducted on the relationship between instructional aids use and achievement of students in the field of accounting, there are related research in other fields. In terms of the practice of using instructional aids in the classroom, Jumaliah, Norhasikin and Mohd Hafizi (2011) conducted a study on 63 lecturers. The research found that technological instructional aids is a necessity for many subjects. However, according to Ghazali, NikMohd Raimi, Parilah, Muhammad Arsyad, and Wan Haslina (2012) who conducted studies related to the frequency of instructional aids use in learning Arabic, the use of textbooks has the highest frequency compared to other instructional aids. The study was conducted on 455 students and 48 lecturers using questionnaire instruments, interviews, in-depth interviews and class observations. Apart from that, the findings of a study by Abdul Rahim and Hayazi (2011) on 103 technical teachers from four schools found that the use of instructional aids among technical teachers in schools in Johor Bahru districts at a low level. A research related to the use of modules as instructional aids in T&L for the subject of Life Skills (Che Hafizie, 2010; Mizan Kamalina, 2013) found that the use of modules can attract students and provide deeper understanding of the subject. Tan Choon Keong and Carol (2013) conducted a study on the use of instructional aids via YouTube videos in the T&L of Social Science. The study involving 60 samples of four students found that the use of videos very effective and able to increase students’ interest and understanding of Social Science subjects. Video helps students to understand topics more by allowing them to visualise Information (Tierman & O’Kelly, 2019) as described by a student in 1st year Geography and a student in 4th year Business Studies in a qualitative study.

Studies on the influence of instructional aids towards students’ achievement in Science in rural secondary school (Ho & Intai, 2017) showed improved marks for post-assessment in the experimental groups. The study was conducted on 120 students using experimental research method. In Nigeria, a study conducted on the effects of instructional aids in HIV/AIDS education in adolescents on 300 school-age teenagers and 200 non-school-age teenagers found that there is a significant relationship between the use of instructional aids and the adolescents understanding of the topic (Adekola, 2010). The study said that the use of instructional aids enhances the knowledge of the sample teenager the disease. Research by Kaswa (2015) on the effect of visual learning aids on students’ academic performance in public secondary schools of Magu District showed that Magu and Kitumba Secondary Schools which used learning aids had better results for two consecutive years of 2013 and 2014. The effects of using instructional aids in T&L of English language (Nnor Iyani, Ahmad Fauzi & Fadzilah, 2012; Agwu & Ogochi, 2019) found that there are positive relationships between the use of the instructional aids and learning. The effectiveness of the use of pictures of internal events, on the other hand, improve poetry writing skills (Sri Rakhmawati, 2011).
Although many studies agree that the use of instructional aids has positive effects on teaching effectiveness, there are studies that say the opposite. Tri Retno (2010), for example, conducted a study on the use of instructional aids in the form of Video Compact Disc (VCD) and printed media on student achievement in the field of Biology. The study was conducted on 40 students in the control group and 40 students in the experimental group. The results stated that student achievement is better with the use of VCD than using printed material but found no significant relationship between the usage of the instructional aids with student achievement in Biology. A study conducted by Yahya and Noor Al Mahdin (2010) also found that the use of instructional aids is not significantly effective in the T&L process of Life Skills subjects in a religious secondary school in Alor Star, Kedah. The study used computer-based instructional aids and consisted of 80 students from form three, four and five. Medical students’ performances after a single trial lecture with different groups of students using different teaching aids showed that the students prefer the chalk and board method (Kumar, Saxena, Kumar, Kumar & Kapoor, 2015).

11. Methodology

This research was conducted at a secondary school in Klang, Selangor involving form four students in the subject of Principles of Accounting. This school was selected based on the facilities that can support the use of instructional aids in T&L sessions. The school is a day type, girls only school that shows an overall excellent achievement.

The study is based on a quasi-experimental design involving two groups of four classes taking the subject. The first group is the experimental group, which is the group taught using the instructional aids-assisted approach while the second group is named the control group, which is taught using the traditional approach using chalk and talk and textbook. Both groups are comprised of 30 students. According to Fraenkel et al. (2018), the maximum number effective samples for descriptive studies, correlation studies and quasi-experimental studies are 100 sample units, 50 sample units and 30 sample units for each group. At the start, students were tested first by using pre-test to determine the level of scores for both groups. After the experimental process, both groups were tested with post-test to determine the scores in the instructional aids-assisted approach and the traditional approach. According to Fraenkel et al. (2018), quasi-experimental is a study involving two unequal groups. The sample was not selected using a random sampling method for both groups because these groups have been administratively formed since before the study began. The quasi-experimental study method is suitable for studying comparison of the effect of a particular situation in which the experimental technique completely not viable especially in real situations at schools.

Two variables are examined in the study: the dependent variable is students’ achievement and the independent variable is the instructional approach in T&L of the Principles of Accounting (instructional aids vs traditional approach). After the initial data collection through the pre-test, the respective teaching methods are implemented. Ruzita (2011) defines pre-test as a test before any treatment is made and aims to review the existing level of knowledge for the control and experimental groups. Pre-test is given to students before treatment begins to measure students’ level of understanding and ensure the level of understanding of students in both groups is equivalent or there is only a small gap of difference for both groups. Post-test is a set of test questions given by the researcher to all samples after the treatment was conducted to test the effectiveness of the treatment. The scope of both tests are Accruals and Prepayment topic. Each question set contains 20 multiple choice questions. Both sets of questions were tested for face and content validity by three experts in the accounting field. The content and level of both set of questions are almost identical, as confirmed by the three individuals appointed to conduct the validity (Mahaliza, Norlia & Shahril @ Charil, 2011).

The research procedure is divided into three, namely before the study, during study and after the study was conducted. Before the study was conducted, the researcher held a special meeting with the students involved. The researcher explains the purpose and procedure implementation of the study. On the same day, the researcher distribute a set of pre-test questions to all students to identify student knowledge level for both groups. The study lasted for four weeks. According to Slavin (2011) study experimental should be conducted at least four weeks. In this phase, the researchers use different T&L methods for each group. For experimental group, the materials employed are concept charts, brief notes, power point slides and the usual textbook and whiteboard. The control control utilize only the textbook and whiteboard.

After the experimental phase, post-test data was collected. The hypotheses are tested using t-tests to ensure the effectiveness of the instructional aids approach in T&L sessions for the subject. Descriptive analysis involving mean, frequency and percentage of student demographics as well as student scores for pre and post tests are also reported. The t-test used to analyze the data is the paired-sample t-test. According to Fraenkel et al.
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(2018), sample t-test pairs are used to test hypotheses about two related groups based on an independent variable. This test is conducted to determine whether there is a mean difference between the two groups.

12. Findings

The respondents involved in this study consisted of all girls from various races. For the experimental group, 33.33% (n=10) of the students are Malay, 30.00 (n=9) are Chinese and the remaining 36.70% (n=11) are Indian. For the control group, 26.7% (N=8) is Malay, and for Chinese and Indian, both has a percentage of 26.70% (n=11). The distribution of students based on race are relatively balanced for both groups. Overall, the majority of students are Indian (22 students), followed by Chinese (20 students) and Malay (18 students).

Analysis of Scores for Pre and Post Tests for Experimental and Control Groups

Table 1 shows the mean and standard deviation for experimental and control groups. For the experimental group, the pre-test mean is 41.67 and post-test 86.00. The mean differences in the two tests for the experimental group is 44.33. For the control group, the pre-test mean is 38.67 and post-test 73.00. The mean difference for the two tests is lower i.e. the difference is 34.33.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Test Mean</th>
<th>Std Deviation</th>
<th>Post-Test Mean</th>
<th>Std Deviation</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental (n=30)</td>
<td>41.67</td>
<td>9.13</td>
<td>86.00</td>
<td>13.80</td>
<td>44.33</td>
</tr>
<tr>
<td>Control (n=30)</td>
<td>38.67</td>
<td>8.60</td>
<td>73.00</td>
<td>12.37</td>
<td>34.33</td>
</tr>
</tbody>
</table>

Table 2 shows the level of student achievement in the pre-test for the groups. In the experimental group, seven students (23.33%) achieved the weak level. The majority i.e. 22 students (73.33%) achieved moderate level scores range of 40 to 59 and only one student (3.33%) achieved the good level. For the control group, nine students (30.00%) reached the weak level, and the rest, 21 students achieved moderate level (70.00%). None reached the excellent level for both groups.

Table 2. Frequency of Scores for Pre-Test in Experimental and Control Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Scores (%)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>75.00-100.00</td>
<td>60.00-74.00</td>
<td>40.00-59.00</td>
<td>0-39.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Excellent)</td>
<td>(Good)</td>
<td>(Moderate)</td>
<td>(Low)</td>
<td></td>
</tr>
<tr>
<td>Experimental (n=30)</td>
<td>0 (0%)</td>
<td>1 (3.33%)</td>
<td>22 (73.33%)</td>
<td>7 (23.33%)</td>
<td></td>
</tr>
<tr>
<td>Control (n=30)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>21 (70.00%)</td>
<td>9 (30.00%)</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows the level of student achievement in the pre-test for the groups. In the experimental group, one student (3.33%) achieved moderate level scores, five students (16.67%) achieved good level scores and the majority i.e. 24 students (80.00%) achieved excellent scores. For the control group, three students (10.00%) achieved the moderate level, 12 students (40.00%) achieved the good level and the remaining 15 students (50.0%) achieved excellent level.

Table 3. Frequency of Scores for Post-Test in Experimental and Control Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Scores (%)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>75.00-100.00</td>
<td>60.00-74.00</td>
<td>40.00-59.00</td>
<td>0-39.00</td>
</tr>
<tr>
<td></td>
<td>(Excellent)</td>
<td>(Good)</td>
<td>(Moderate)</td>
<td>(Low)</td>
</tr>
<tr>
<td>Experimental (n=30)</td>
<td>24 (80.00%)</td>
<td>5 (16.70%)</td>
<td>1 (3.33%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Control (n=30)</td>
<td>15 (50.00%)</td>
<td>12 (40.00%)</td>
<td>3 (10.00%)</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>

Table 4 shows t-test analysis of the mean difference of pre-test and post test scores for experimental and control groups. Based on the value of t (29) = -19.86, p = 0.00, the value of p<0.05, there is a significant difference between the mean of pre-experimental test scores and mean of experimental post-test scores. Therefore, the null hypothesis H01: There is no significant difference between the mean scores of pre-test and mean scores of post-test in the experimental group is rejected. The t-test analysis of the mean difference of pre-test and post-test scores for the control group show the value of t is -11.66, and the significant value (2-tails) is
0.00. Therefore, the null hypothesis Ho2: There is no significant difference between the mean scores of pre-test and mean scores of post-test in the control group is rejected.

Table 4. T-Test Analysis of Pre-Test and Post-Test for Experimental and Control Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2-tails)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-Test</td>
<td>Post-Test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>41.67</td>
<td>86.00</td>
<td>-19.86</td>
<td>29</td>
</tr>
<tr>
<td>Control</td>
<td>38.67</td>
<td>73.00</td>
<td>-11.66</td>
<td>29</td>
</tr>
</tbody>
</table>

Table 5 shows t-test analysis of the mean difference of pre-test scores for experimental and control groups. Based on the value of t (29) = -1.36, p = 0.18, the value of p>0.05, there is no significant difference between the mean scores. Therefore, the null hypothesis Ho3: There is no significant difference between the mean scores of pre-tests in the control group and the experimental group cannot be rejected. The t-test analysis of the mean difference of post-test scores for the experimental and control groups show the value of t is -3.99, and the significant value (2-tails) is 0.00. Therefore, the null hypothesis Ho4: There is no significant difference between the mean scores of post-tests in the control group and the experimental group is rejected.

Table 5. T-Test Analysis of Pre-Test and Post-Test Scores for Experimental and Control Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Test Mean</th>
<th>t</th>
<th>df</th>
<th>Sig (2-tails)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Experimental</td>
<td>Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Test</td>
<td>41.67</td>
<td>38.67</td>
<td>-1.36</td>
<td>29</td>
</tr>
<tr>
<td>Post-Test</td>
<td>73.00</td>
<td>86.00</td>
<td>-3.99</td>
<td>29</td>
</tr>
</tbody>
</table>

13. Discussion and Conclusion

The results of the study concluded that there is a significant difference between means of pre-test and post-test scores for the experimental group when instructional aids were utilized. Significant difference is also observed between means of pre-test and post-test scores for the control group. However, the higher post-test scores when instructional aids were utilized during T&L showed that it is more effective than the use of traditional method. The results of this study are supported by Md. Zohri (2011) who found that there was a significant difference between the mean pre-test scores and post-tests for experimental groups in which teaching is conducted using a computer as instructional aids.

T-test was also conducted on the meanpost-test scores for both groups, namely the experimental group and control group. The analysis showed that there is a significant difference between the mean scores of the groups. This finding is supported by Md. Zohri (2011). Based on the findings of this study, along with from previous studies, it can be concluded that differences in academic achievement between students taught using aids-assisted approach to teaching using traditional method. Overall, the results of this study showed that the process of T&L for Principles of Accounting is more effective than if the teacher employ only traditional method. Specifically, student achievement in Principles of Accounting is better with the use of instructional aids compared to the use of traditional methods.

14. Implications of the Study

Teachers need to be aware that, even if students are in the same class and have almost the same academic achievement, they have different backgrounds, intelligence and levels of understanding. The use of a similar method in delivering instruction may be effective for certain type of students but not for another student. To ensure effective teaching to achieve T&L objectives optimally, teachers need to wisely adapt teaching methods that suit the characteristics such as learning styles and not just rely on traditional methods alone. This study it is hoped to convince teachers of the importance of instructional aids as one of the possible teaching alternatives applied in the classroom, especially in the field of Accounting. Accounting teachers can be select appropriate teaching approach by considering students’ characteristics, topic difficulty, time and facilities available to provide various experience to students. School administrators must ensure instructional facilities are adequate, usable and well maintained.
The study sample in this study consists of 60 students at one school. For future studies, a larger study sample and involving several schools is suggested. Sample background studies can be further extended to students of different characteristics, achievements and type of schools. The scope of the lesson can be extended if longer period is taken. This is important to find out the effectiveness of the use of instructional aids in Principles of Accounting in a more controlled manner. The research instruments used can also be improved to include different forms such as structural questions as well as calculation-related questions. Further studies can be conducted on other subjects such as Basic Economics and Business Study.

15. Conclusion

This study was conducted to identify the effectiveness of the use of instructional aids in the T&L of Principles of Accounting. The study was conducted at a daily school in Selangor using a quasi-experimental design. The study sample consisted of 60 form four students taking the subject. Samples involving 30 students per class are treated as an experimental group and control group. The control group was given relevant exposure Previous and Accrued titles using the traditional approach i.e. only use textbooks and whiteboards only. The experimental group was taught using instructional aids vs chalk and talk method for the control group. The analyses done showed that the pre-test and post-test scores for both groups are significantly different. The pre-test scores for both groups are not significantly different proving the homogeneity of the two groups. The post-test scores for both groups are significantly different with the experimental group showing higher scores. The implications of the study include the need to identify various teaching aids that can be utilized by teachers and the provision of facilities (including financial) to encourage the use of instructional aids in T&L.

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References


