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TEACHING METHODS, ACHIEVEMENT AND HIGH ORDER THINKING SKILLS (HOTS) AMONG ACCOUNTING STUDENTS IN SECONDARY SCHOOLS IN MALAYSIA

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Abstract: *The purpose of this study is to determine the correlation between Accounting teachers' use of various teaching methods with achievement and high order thinking skills (HOTS) of Principles of Accounting students. Samples are formed four students from schools in the Batang Padang district in Perak, Malaysia. The objectives of the study are to determine the level of practice of teaching methods, student achievement, and HOTS, the difference of the variables based on gender and quantitative skills and the correlation between teacher teaching methods and student achievement and HOTS. The practice of teaching methods is divided into three constructs namely teaching activities, teaching aids, and teaching and facilitating. The findings show that the mean level of teaching activities is 3.79 (high), teaching aids 4.41 (high) and teaching and facilitating 3.57 (moderate). The overall level of students' achievement is 57.26% at a moderate level. The mean of low-level thinking skills is 5.49, medium-level 32.97 and high-level 13.31. Based on gender, students' achievement and HOTS differ significantly with male students showing higher scores. Based on the students' quantitative skills, teaching and facilitating, low-level thinking skills and high-level thinking skills show significant differences. The Pearson correlation test between teaching aids and low-level thinking skills showed a significant positive relationship ($r = 0.260$, $p < 0.05$). Based on the findings, grouping*

activities such as cooperative learning and systematic practice modules are expected to enhance Accounting students' mastery and HOTS. The use of game-based learning and interactive teaching methods will have a better impact on students' learning considering their high interest in such activities. Adequate infra and info structures and tools that facilitate the use of ICT in teaching and facilitating should be made available. Teachers should also ensure variability in teaching activities and teaching aids to enhance students' motivation and performance.

Keywords: *Teaching Methods, Teaching Aids, Teaching Activities, Achievement, Thinking Skills And Accounting*

Introduction

High order thinking skills (HOTS) is the ability to apply knowledge, skills and values in making reasoning and reflection (Ramos, Dolipas & Villamor, 2013). The inculcation of HOTS in teaching and learning is in line with Malaysia Education Blueprint 2013-2025 (Malaysia Ministry of Education, 2013) that emphasize creativity and innovation elements. The Principles of Accounting subject often show poor performance in the Malaysia Certificate of Examination. In addition, the emphasis on exams causes teachers to teach students only to master the exam-related information while the Principle of Accounting subject requires students to master the entire topic from the level of knowledge to the level of creation as in the Bloom Taxonomy. Therefore, teachers teaching accounting related subjects must resort to various teaching methods, teaching aids and strategies (Ekeyi, 2013).

The teaching of accounting subjects are typically conventional (traditional) and to some extent are teacher-centered approaches. It involves the traditional teaching and learning, lectures or tutorials which require the teachers and the students to be physically present. Thus, the application of more student-centered or technologically driven approaches are not too common until the recent years. Research by Ganyaupfu (2013) on the differential effectiveness of teaching methods on students' academic performance at Department of Economic and Business Sciences indicated significant differences on the effectiveness of three teaching methods. The mean scores results demonstrated that teacher-student interactive method was the most effective teaching method, followed by student-centered method while the teacher-centered approach was the least effective teaching method. Research by Hackathorn, Solomon, Blankmeyer, Tennial, and Garczynski (2011) and Zerihun, Beishuizen and Van Os (2012) had concluded that active techniques do aid in increasing learning. In-class activities led to higher overall scores than other teaching methods while traditional, lecture method led to the lowest overall scores. In-class activities are the most effective of all the techniques because they allow students to actually manipulate and practice applying the information themselves. Active, student-centered teaching methods affect learning on deeper levels and create advantages for teachers who manage students with diverse learning styles (Cook & Hazelwood, 2002). Research on the use of slideshow showed that it has no significant impact on course performance and on grades (Hill, Arford, Lubitow & Smollin, 2012). On the other hand, there are students who favour powerpoint lectures and rated them more highly than those without slides (Drouin, Hile, Vartanian & Webb, 2013). El Khoury and Mattar also (2012) found no significant difference in students' rating of the benefit of using PowerPoint. The study found that PowerPoint use decreased students' learning and students preferred the traditional teaching method.

One of the most effective teaching features involves diversity of teaching and learning methods in the classroom (Kamarul Azmi, Ab. Halim & Mohd Izham, 2011; Marzano, Pickering & Pollock, 2012). Due to time constraint most teachers prefer traditional and teacher-centered teaching approach. The study of Nik Nazli and Maliah (2013), however, showed that students prefer active learning ie student-centered. Cooperative learning had been proven to have a significant positive impact on student achievements and attitudes towards mathematics (Zakaria, Chin, & Daud, 2010).

In addition, researchers also conclude that teachers are encouraged to modify traditional teaching methods to interactive learning. Thus, traditional learning is less relevant today as it is too focused on teachers and limits students' active involvement in teaching and learning process. Research by Yap, Neo and Neo (2013) showed that student-centered learning using multimedia learning modules enhances student motivation and students' understanding of learning and teaching. This is largely because concentration on the teachers is reduced and create student-centered learning.

Objective

The main objective of this study is to determine:

i) the level of usage of various teaching activities, teaching aids and teaching and facilitating strategy in implementing the Principles of Accounting subject,
ii) the level of achievement in Accounting test and HOTS,
iii) the difference in teaching activities, teaching aids, teaching and facilitating, achievements in Accounting test and HOTS based on gender and quantitative skills, and
iv) whether there are significant relationships between teaching activities, teaching aids and teaching and facilitating with achievement in Accounting test and HOTS.

Methodology

Information about teaching methods and demographic is obtained through surveys. The practice of teaching methods is divided into three constructs namely teaching activities, teaching aids and teaching and facilitating. A sample of 70 respondents were selected conveniently because it was easier for the researchers to identify respondents involved in each school as the number of students taking the subject of Principle of Accounting in each school was small. According to Cooper and Schindler (2014), 25 to 100 samples are sufficient for an analysis to be performed. The study was conducted at three secondary schools in the state of Perak, Malaysia. The data obtained were analyzed by using descriptive statistics involving mean score, percentage, standard deviation and inference analyses such as t-test, variance analysis (ANOVA) and Pearson correlation. The research instruments used in this study are a set of questionnaire using 5-Likert scale and a set of assessment questions on Principle of Accounting content. This questionnaire was adapted from a study conducted by Maharam (2016). Some questions have been changed to suit the objective of the study. The test question is divided into two parts. Part 1 contains 25 objective questions while part 2 contains subjective questions with two main questions and some sub-questions. The test questions involve different HOTS level. The validity process involves evaluation by subject experts at schools and at Public Universities while pilot test to determine the reliability of the instruments was conducted at a school in the same district. According to Sekaran and Bougie (2016), the Cronbach alpha value below 0.60 is a low reliability value, if within 0.70, the value can be applied and the value greater than 0.80 is a good reliability value. The Cronbach alpha value for the variables involved in the study are acceptable with the value of 0.814 for Teaching Activity, 0.840 for Teaching Aids and 0.785 for Teaching and Facilitation.

Research Finding

Objective 1: The Level of Usage of Various Teaching Activities, Teaching Aids and Teaching and Facilitating Strategy in Implementing the Principles of Accounting Subject

The results showed that the teachers' teaching aids usage had the highest mean value (4.41-high) followed by teaching activities (3.79-high) and teaching and facilitating (3.57-moderate).

Table 1: Mean Scores of Teaching Aids Used

Item	N	Mean	Standard Deviation	Level
Text books	70	4.90	0.551	High
Learning modules	70	4.67	0.597	High
Past years exam questions	70	4.59	0.610	High
Mahjong paper/Manila card	70	4.45	0.743	High
Physical material	70	4.43	0.633	High
Additional reference books	70	4.39	0.610	High
Power Point	70	4.35	0.738	High
Computer	70	4.33	0.633	High
Video	70	4.30	0.720	High
Vle Frog	70	4.27	0.738	High
Mobile telephone	70	4.24	0.743	High
Magazines	70	4.19	0.551	High
Prospectus/Annual Report	70	4.17	0.597	High
Overall		4.41	0.651	High

Table 2: Mean Scores of Teaching Activities Used by Teachers

Item	N	Mean	Standard Deviation	Level
Group discussion	70	4.59	0.551	High
Individual exercises	70	4.47	0.597	High
On-line exercises	70	4.39	0.610	High
Invited speaker	70	4.33	0.633	High
Demonstration	70	4.30	0.720	High
Oral question and answer	70	4.27	0.738	High
Oral quiz	70	4.24	0.743	High
Written quiz	70	4.14	0.770	High
Group exercises	70	4.10	0.793	High
Case study	70	4.06	0.797	High
Presentation	70	3.54	0.807	Moderate
Role play/Simulation	70	2.36	1.111	Moderate
Games	70	2.23	1.047	Low
Brainstorming	70	2.05	0.910	Low
Overall		3.79	0.699	High

The most frequent teaching aids are text books, learning modules and past years exam questions (Table 1). For teaching method, the use of group discussions, individual exercises and on-line exercises are the most common (Table 2). Teaching and facilitating activities show that

teachers' teaching methods stimulate students' interest in the subject, increase teachers' effectiveness and create variability in teaching (Table 3).

Table 3: Mean Scores of Teaching and Facilitating Activities

Item	N	Mean	Standard Deviation	Level
The teaching methods used stimulate students' interest in subject	70	4.95	0.441	High
The teaching methods used are appropriate for students learning	70	4.77	0.597	High
The teacher's suitable teaching methods increase my understanding	70	4.65	0.610	High
The teaching methods used increase teachers' effectiveness	70	4.55	0.653	High
The teaching methods used create variability in teaching	70	4.50	0.740	High
The suitable teaching methods used stimulate my learning	70	4.44	0.758	High
My teacher's T&L makes the subject easy-to-understand	70	4.31	0.763	High
My teacher is very committed in T&L process	70	4.20	0.770	High
My teacher will not scold students if we answer inaccurate or incorrectly	70	4.11	0.793	High
We often have small group discussions to improve critical thinking skills	70	3.90	0.567	High
My teacher always give oral or written comments on our performance	70	3.88	0.543	High
I can meet the teacher out of class time to discuss things	70	3.67	0.530	Moderate
My teacher hold additional classes, if necessary, to revi difficult topics	70	3.55	0.640	Moderate
My teacher set questions that stimulate high-level thinking	70	3.43	0.655	Moderate
The diversity of teaching methods help me better understand the contents	70	3.33	0.710	Moderate
My teacher uses appropriate teaching methods for group learning	70	3.21	0.756	Moderate
My teacher prepares the learning materials needed during teaching	70	3.20	0.777	Moderate
The use of appropriate teaching methods can improve my performance	70	3.10	0.810	Moderate
My teacher motivates students to improve their achievements	70	3.02	0.820	Moderate
My teacher assist students to solve problems related to the subject	70	2.99	0.715	Moderate
My teacher encourage students to contribute ideas in activitie carried out	70	2.55	0.870	Moderate
My teachers holds additional classes, if necessary, to complet the syllabus	70	2.34	0.888	Moderate
My teacher conducts written quiz every time a topic is completed	70	2.30	1.112	Low
My teacher will discuss answers for all the exercises given	70	2.22	1.231	Low

My teacher often ask subjective questions that leads to discussion	70	2.12	1.279	Low
Overall		3.57	0.761	Moderate

Objective 2: The Level of Achievement in Accounting Test and HOTS

The level for student achievement based on the test given ranges from 28% to 89% (sd = 0.631 to 0.591) with mean 57.26% and median 55.50% being at the credit (moderate) level. The HOTS score distribution and the achievement of the Form 4 Principle of Accounting students in the schools are as in Table 4. Base on the means for each thinking skills level, on average students achieve only 27.44% score at the low level thinking skill, 58.88% score at the medium level thinking skill and 55.48% score at the high level thinking skill.

Table 4: High Order Thinking Skills and Achievement in Principles of Accounting

	Low level (Max 20 marks)	Medium Level (Max 56 marks)	High Level (Max 24 marks)	Overall (100)
Mean	5.489 (27.44%)	32.971 (58.88%)	13.314 (55.48%)	57.257
Median	6.000	32.500	11.500	55.500

Objective 3: The Difference in Teaching Activities, Teaching Aids, Teaching and Facilitating, Achievements in Accounting Test and HOTS Based on Gender and Quantitative Skills

The difference in teaching activities based on male and female students can be seen through t-test which showed that there is no significant difference in the Principle of Accounting test scores based on gender with $t = -1.097$ ($p > 0.05$). The t-test for teaching aids by gender also showed no significant difference with the value of $t = .201$ ($p > 0.05$). The t-test for teaching and facilitating based on student gender also showed no significant difference with $t = -1.790$ ($p > 0.05$). The t-test for achievement based on gender showed significant difference with $t = 51.487$ ($p < 0.05$). The achievement of male students (mean = 64.193) was significantly higher than female students (mean = 51.744). The t-test for low-level thinking skills based on student gender showed significant difference with $t = 5.991$ ($p < 0.05$). The male students' level of thinking (min = 6.452) was higher than the female students (min = 4.718). The t-test for medium-level thinking skills based on student gender showed significant difference with $t = 2.074$ ($p < 0.05$). Male students' thinking skills (min = 35.161) was higher than female (mean = 31.231). The t-test for high-level thinking skills based on student gender showed significant difference with $t = 3.611$ ($p < 0.05$). Male students showed higher level thinking skills (mean = 16.129) compare to female students (mean = 11.077).

ANOVA test for teaching activities based on students' quantitative skills showed no significant difference with $F = 1.374$ ($p > 0.05$). ANOVA test showed that teaching aids was also not significantly different with the value of $F = 1.847$ ($p > 0.05$) based on quantitative skills. The test for teaching and facilitating based on quantitative skills showed a significant difference with the value of $F = 2.762$ ($p < 0.05$) with the students that have high quantitative skills showing higher scores. The difference in student achievement based on quantitative skills did not show significant differences with the value of $F = 2.188$ ($p > 0.05$). The ANOVA test showed that students' low-level of thinking based on quantitative skills is significantly different with the value of $F = 2.885$ ($p < 0.05$). The ANOVA test showed that the difference in the

students' medium-level of thinking skills based on quantitative skills did not differ significantly with the value of F = 1.343 (p>0.05). The ANOVA test showed that students' high-level thinking based on quantitative skills also differ significantly with the value of F = 2.814 (p <0.05).

Objective 4: Whether There Are Significant Relationships Between Teaching Activities, Teaching Aids and Teaching and Facilitating with Achievement and HOTS in Principle of Accounting Subject

Pearson correlation test between teacher teaching activities and student achievement showed correlation of r = 0.042 (p> 0.05) Correlation test between teaching aids and student achievement showed correlation of r = 0.142 (p> 0.05). Correlation test between teaching and facilitating and student achievement showed correlation r = 0.062 (p> 0.05).

Pearson correlation test between teaching activities with low-level thinking skills showed correlation of r = 0.116 (p> 0.05), with medium-level thinking skill r = -0.074 (p> 0.05) and with high-level thinking skill r = -0.038 (p > 0.05). The Pearson correlation test between teaching aids and low-level thinking skills showed a correlation value of r = 0.260 (p <0.05), with the medium-level of thinking r = -0.100 (p> 0.05) and with high-level thinking skills r = -0.051 (p> 0.05). Pearson correlation test between teaching and facilitating and low-level thinking skills showed correlation value r = 0.165 (p> 0.05), with medium-level thinking skills r = 0.002 (p> 0.05) and with high-level thinking skill r = 0.043 (p> .05).

Discussion

The main purpose of this study is to determine the relationship between teacher teaching methods (teaching activities, teaching aids and teaching and facilitating) and the level of achievement in the students' Principle of Accounting and HOTS. Through the findings of the study it can be seen that students taking the Principles of Accounting subject at the schools involved in the study perceived that the level of application of various teaching activities and teaching aids are generally high. However, the results showed that teaching aids involved are traditional in nature involving text books, learning modules, past years' exam questions and mahjong papers/manila cards. The use of real materials that can help students to relate theories and practices is still at the bottom of the list (Hackathorn et al., 2011). For teaching activities, group discussions, exercises and demonstration top the list while brainstorming, game-based learning, role-play and presentation that require students' active participation during teaching and learning process are still not frequently utilized (Michel, Cater, & Varela, 2009). Ying Cui (2013) has indicated that more active teaching techniques can help improve student learning. Learning involving activities in the classroom can increase the overall score of the students compared to lecture (Cook & Hazelwood, 2002; Ganyaupfu, 2013; Hackathorn et al., 2011). In this research, teaching and facilitating process is still at moderate level. Students, however, feel that the teachers manage to stimulate their interest in the subject using appropriate teaching methods. The various teaching methods employed make the teachers' teaching effective and help students understand the content (Kamarul Azmi et al., 2011; Marzano et al., 2012; Sawchuk, 2011). However, the teachers rarely asked questions that lead to discussions, a lot of times do not discuss answers for the exercises given or sought students' ideas during activities and seldom conduct quizzes after completing a topic (Tan & Arshad, 2011; Ying Cui, 2013). Probably students feel that the activities are important to enhance or ensure their understanding.

The use of real materials must be increased to further engaged students in T&L activities and enhance their understanding of the content learned. A more interactive, student-centered T&L

approach should also be employed particularly to make the subject interesting and practical thus, contribute towards an increase in students' performance and HOTS (Ruhizan, Lilia & Azaman, 2012; Tan Shin Yen & Siti Hajar, 2015). Particular attention must be placed towards the use of teaching activities and teaching aids for the female students who seemed to be indifferent to the methods employed. Teachers must make them engaged and benefit from the activities conducted. Teachers should also pay close attention to applying multiple activities in helping to create a learning environment for the 21st millennium (Hugerat, 2014; Yoke, Hasan, Jangga, & Kamal, 2015). The application of technology (Drouin et al.,2013; El Khoury & Mattar, 2012) and student-centered applications are important to enhance students' interest in learning rather than teacher-based lectures that makes students passive in class (Farahiza, 2010; Norlia, 2014; Rohayati, 2013). The HOTS level of the students need to be improved and the attention of the teacher is needed to increase the knowledge and understanding of students in applying higher cognitive levels (Abdul Halim, Nur Liyana & Marlina, 2015). Significant correlation was observed only between teaching aids and low-level thinking skills. Real implementation of student-centered teaching and facilitating activity using various approaches and teaching aids will have a positive impact on students experience and achievement (Cook & Hazelwood, 2002; Zerihun et al., 2012).

The findings and discussion show that teachers must utilize various teaching methods to help students to improve their performance and HOTS. Previous studies indicated that student-centered learning environment produce higher-level learning outcomes more efficiently than traditional teacher-centered environment (Adunola, 2011; Ganyaupfu, 2013). Therefore, teachers should create learning experiences conducive to enhance the development of students' learning outcomes. Teachers must also increase their knowledge and skills of various instructional strategies in order to keep students engaged and motivated throughout the learning process. Stakeholders such as the Ministry of Education Malaysia (MOE), State Education Department, District Education Office and school administrators need to play a role in promoting the use of teaching methods that have a positive impact on students. Among the steps that can be taken by stakeholders is such as providing courses and training to the development of technology-based and student-centered teaching methods. MOE can provide training technology-based teaching methods to teachers. The use of game-based learning and interactive teaching methods will have better impact on students' learning considering their high interest in such activities. In addition, the provision of physical infrastructures and tools that facilitate the ease of implementing teaching and facilitating such as a globally equivalent electronic tool to promote the use of ICT in teaching and facilitating should be made available. In the context of teaching and facilitating as well, group methods such as cooperative learning and systematic training modules are expected to enhance student achievement and quality. Students will understand the main concepts more effectively when they are engaged to solve problems during class activities.

Conclusion

Based on the findings of this study, teachers of the Principles of Accounting subject have already begun to use more active teaching methods, but the activities and teaching aids utilized are still very traditional in nature. A more student-centered, technologically and ICT-based approach are expected to increase students' motivation, understanding, skills and performance. Furthermore, the level of achievement and the level of HOTS among students should be given special attention as the Principle of Accounting are critical subjects that require students to master the concepts and process well as well to think outside the box and not focus on reading alone to perform well in the subject. Additionally, teachers need to play an important role in

identifying appropriate teaching methods to shift from traditional, teacher-centered T&L approach to the 21st millennium teaching methods to better suit students need and help improve their performance. In addition, grouping methods such as cooperative learning and systematic training modules are expected to improve student achievement and HOTS.

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References

Abdul Halim Abdullah, Nur Liyana Zainal Abidin & Marlina Ali (2015). Analysis of students' errors in solving higher order thinking skills (HOTS) problems for the Topic of Fraction. *Asian Social Science*, *11*(21), 133.

Adunola, O. (2011). *The impact of teachers' teaching methods on the academic performance of primary school pupils in Ijebu-Ode Local cut area of Ogun State*. Ogun State, Nigeria: Ego Booster Books.

Cook, E. D. & Hazelwood, A. C. (2002). An active learning strategy for the classroom—" Who wants to win . . . some Mini Chips Ahoy?" *Journal of Accounting Education*, 20, 297–306.

Cooper, D., & Schindler, S. (2014). *Business research methods*. New York: McGraw-Hill Irwin.

Drouin, M., Hile, R. E., Vartanian, L. R. & Webb, J. (2013). Student preferences for online lecture formats. *Quarterly Review of Distance Education*, 14(3), 151-162.

Ekeyi, D. N. (2013). Effect of demonstration method of teaching on students' achievement in Agricultural Science. *World Journal of Education, 3*(6), n/a. Retrieved from http://search.proquest.com/docview/1503846750?accountid=13155.

El Khoury, R. & Mattar, D. (2012). Powerpoint in accounting classrooms: Constructive or destructive? *International Journal of Business and Social Science*, 3(10) [Special Issue –May].

Farahiza Zaihan Azizan (2010). The effectiveness of using internet as a principal information resource in teaching and learning activity in Higher Educational Institutions in Malaysia. *Regional Conference on Knowledge Integration in ICT*, 7-12.7/5/2018 Research Proposal http://rims.upsi.edu.my/management/rmic/rnd/application/app_detail.php 9/12.

Ganyaupfu, E. M. (2013). Teaching methods and students' academic performance. *International Journal of Humanities and Social Science Invention*, Vol.2 (9), 29-35.

Hackathorn, J., Solomon, E. D., Blankmeyer, K. L., Tennial, R. E. & Garczynski, A. M. (2011). Learning by doing: An empirical study of active teaching techniques. *The Journal of Effective Teaching*. Vol. 11, No. 2, 40-54.

Hill, A., Arford, T., Lubitow, A & Smollin, L. (2012). I'm ambivalent about it: The dilemmas of powerpoint. *Teaching Sociology*, 40(3), 242-256.

Hugerat, Muhamad. (2014). Improving higher order thinking skills among freshmen by teaching science through inquiry. *EURASIA Journal of Mathematics, Science & Technology Education*. 10. 447-454. 10.12973/eurasia.2014.1107a.

Kamarul Azmi Jasmi, Ab. Halim Tamuri, Mohd Izham Mohd Hamzah (2011). Kajian kes penggunaan kaedah pengajaran dan pembelajaran guru cemerlang Pendidikan Islam (GCPI) sekolah bandar dan luar bandar: Satu kajian perbandingan. *Jurnal Teknologi*, *56*(1), 179-198.

Maharam Mamat. (2016). Penguasaan Bahasa Inggeris dalam kalangan pelajar tahun satu di UKM. *Issue in Language Studies*, 5(2), 28-42.

Malaysia Ministry of Education (2013). *Malaysia Education Blueprint 2013-2025*. Putrajaya, Malaysia: Ministry of Education.

Marzano, R. J., Pickering, D., & Pollock, J. (2012). *Classroom instruction that works: Research based strategies for increasing student achievement*. Alexandria, VA: Association for Supervision and Curriculum Development.

Michel, N., Cater, J. J., & Varela, O. (2009). Active versus passive teaching styles: An empirical study of student learning outcomes. *Human Resource Development Quarterly*, *20*(4), 397-418.

Nik Nazli Nik Ahmad & Maliah Sulaiman (2013) Case studies in a passive learning environment: Some Malaysian evidence. *Accounting Research Journal*, 26 (3). 173-196.

Norlia Mat Norwani, Rohaila Yusof & Khalid Ismail (2014). The effectiveness of case study method towards competency development of students in Introductory Accounting subject. *International Journal for Innovation Education and Research*, 2 (1), 93-104.

Ramirez, R. P. B., & Ganaden, M. S. (2010). Creative activities and students' higher order thinking skills. *Education quarterly*, *66*(1).

Ramos, J. L. S., Dolipas, B. B., & Villamor, B. B. (2013). Higher order thinking skills and academic performance in physics of college students: A regression analysis. *International Journal of Innovative Interdisciplinary Research*, *1*(4), 48-60.

Rohayati Ismail, (2013). *Faktor peramal akan sikap guru terhadap penggunaan teknologi maklumat dan komunikasi dalam pengajaran dan pembelajaran di Sekolah Menengah Selangor, Malaysia.* Tesis Sarjana, Universiti Putra Malaysia.

Ruhizan M. Yasin, Lilia Halim & Azaman Ishar (2012). Effects of problem-solving strategies in the teaching and learning of engineering drawing subject. *Asian Social Science*, 8(16), 65-79.

Sawchuk, S. (2011). Studies link classroom observations to student achievement, *Education Week*, April 26.

Sekaran, U. & Bougie, R. (2016). *Research methods for business: A skill building approach*. 7th Edition. Haddington: John Wiley & Sons.

Sistem Guru Online (2016). Apa itu HOTS | Konsep & teori HOTS. Retrieved on 28 Mei 2016 from http://www.sistemguruonline.my/2014/11/apa-itu-HOTS-konsep-teori-HOTS.html.

Tan Shin Yen & Siti Hajar (2015). Effective teaching of Higher-Order Thinking (HOT) in education. *The online Journal of Distance Education and e-Learning*, *3*(2), 41-47.

Tan, Y. P., & Arshad, M. Y. (2011). Problem-based learning: Implementation issues in Malaysia secondary school's science classroom. *International Conference on Science &Mathematics Education (CoSMEd)*.

Yap, W.L., Neo, M. & Neo, T.K. (2013). Impact of learner-centered teaching environment with the use of multimedia-mediated learning modules in improving learning experience. *Jurnal Teknologi*, Vol 64(2), 65-71.

Ying Cui (2013). An empirical study of learning outcomes based on active versus passive teaching styles. *International Journal of Education and Management Engineering, 39-43.*

Yoke, S. K., Hasan, N. H., Jangga, R., & Kamal, S. N. I. M. (2015). Innovating with HOTS for the ESL Reading Class. *English Language Teaching*, *8*(8), 10.

Zakaria, E., Chin, C.L. & Daud, Y. (2010), “The effect of cooperative learning on student mathematics achievements and attitu de towards mathematics, Journal of Social Sciences, 6(2): 272-275.
Zerihun, Z., Beishuizen, J., & Van Os, W. (2012). Student learning experiences as indicator of teaching quality. *Educational Assessment, Evaluation and Accountability*, 24, 99-111.