EFFECTIVENESS, DYNAMICS OF TEACHERS' INTERACTIONS AND CHALLENGES OF USING LESSON STUDY IN PROMOTING HIGHER ORDER THINKING SKILLS IN SECONDARY SCHOOL ENGLISH LANGUAGE LESSONS: A PILOT STUDY

[1]DOREEN PREMILA RAJAMONEY, [2]P EDWIN RAJAMONEY

[1,2]Wawasan Open University, Malaysia
E-mail: doreenpragasam@gmail.com

Abstract - This pilot study aimed to examine the effectiveness, dynamics of teachers' interactions and challenges of using Lesson Study in promoting Higher Order Thinking Skills in secondary school English Language lessons. Data collection were based on two tests to compare on the same sample of students via paired t-test through the Lesson Study intervention. Video and Audio recordings were carried out for the research lesson, reflection as well as interviews with the teachers involved. The results and findings of this research proved that there was a significant difference on the tests before and after the treatment was given due to the intervention of the Lesson Study strategy with HOTS implemented and the effective yet professional dynamics of interactions among the teachers who were involved.

Keywords - Professional Learning Community, Lesson Study, Dynamics of Interactions, Higher Order Thinking Skills, Research Lesson

I. INTRODUCTION

This pilot study was carried out to see if the enhancement of students' Higher Order Thinking Skills (HOTS) through Lesson Study intervention which also involved the dynamics of teachers' interactions was feasible. More specifically, it emphasized on integration of HOTS elements in a Lesson Study and its challenges. There is evidence to show that there has been a decline in the application of HOTS by students especially in English Language classrooms (Zohar & Dori,2003). Numerous reasons have also been attributed in the literature for the general decline of English Language standards among secondary school students (Nor Hashimah, et al, 2008). Many interventions can and has been taken to improve English Language achievements among secondary school students. Some of the reasons given in literature include students' attitude towards English Language, lack of usage of the language, usage of improper pedagogy and students' socio-economy background, etc. In addition to the decline in English Language achievement, there is also a lack in students' application of HOTS in their English Language learning.

Application of HOTS is a very important skill that students of the 2Ist century need to integrate in their learning activities. Thus, we now have the dual problem of not only improving the English Language proficiency but we also need to enhance the student's application of HOTS (Ministry of Education, 2012). Many efforts have been taken in the past to enhance the application of HOTS among students (Spolsky & Sung, 2015). One of the ways to enhance students' HOTS is through the use of Lesson Study (British Council, 2018; Rajendran, 2001; Puchner & Taylor, 2006). This study had 2 main phases. The first phase is the development of Lesson Study processes to be used in promoting students' acquisition of HOTS. The second phase is to study the effects of the developed Lesson Study on secondary school students' HOTS through the dynamics of teachers' interactions. In this research, teachers developed the Lesson Study in the context of a Professional Learning Community (PLC) which is in the domain of Professional Development program for teachers. It seeks to integrate the elements of HOTS through the Lesson Study strategies in the teaching and learning of English Language in a secondary school. Professional Learning Community (PLC) is an approach or a term given for a whole lot of strategies where teachers come together with different ideas to review their teaching or other pedagogically related activities for improvement and effectiveness. So, the dynamics of the teachers' interaction will also be seen into.

II. BACKGROUND

This research attempted to investigate the effectiveness, dynamics of interactions and challenges of the Lesson Study strategy in promoting HOTS in teaching English Language. This pilot study was carried out in a secondary school in a district in the state of Negri Sembilan (Malaysia) which involved a class from that school and 4 English Language teachers from that particular school who would go through the process / cycle of the Lesson Study. These teachers in the Lesson Study team looked into the lesson study as participants in the interaction processes of commenting and reflecting on the observed lesson and support its activities with a Knowledgeable Others (KO) involved in it as well and the researcher as an observer. This research also outlined the background of the research limitations of

the research and also the definition of terms. The research method in this case-study is based on an approach that is a mixed method which has both the qualitative and quantitative method. Interviews and HOTS Instruments was administered besides having the Lesson Study with HOTS being inculcated in it being carried out with all its procedures for the reports of the findings.

III. PROBLEM STATEMENT

The researcher intended to investigate the effectiveness, dynamics of teachers' interactions and challenges of using the Lesson Study in promoting HOTS in secondary school English Language lessons. Generally, how the English Language is taught and carried out is vital to determine the quality of its language through its performance. The responsibility of teaching and learning process itself frames creativity, knowledge and the experience of the one teaching / training. Lesson study is therefore a vital tool that has the possibility to enhance the teaching and learning process in the English Language and is introduced and implemented to improve the language skills using HOTS. However, the low acquisition level in English Language, especially among students that are weak in English Language using thinking skills in schools, had still aroused the anxiety among English Language teachers. This weakness had caused the teaching and learning process for further skills, such as vocabulary, listening and speaking, writing, reading and such be interrupted. There is no global standards in English (Kian Ming, 2008) as well as HOTS innovation in most classrooms (Rajendran, 2001). HOTS were not up to the mark (Nagappan,2001; Kang (20I3)For this, Lesson Study can help students acquire thinking skills in these English Language elements by incorporating skills and strategies needed by them to think critically and creatively which students themselves will be equipped if HOTS is taken into account during the Lesson Study implementation itself. Support from the schools can help in acquiring these skills by keeping up with the technology advances which keep changing so that students themselves would gain and understand information efficiently (Cox, 2009)).There is a decline in HOTS in English classrooms (Zohar & Dori, 2003). Many interventions and efforts had been carried out to enhance HOTS among students (Spolsky and Sung, 2015). So – there's dual problem / issues which are to:-

(a) Improve English Language proficiency
(b) Enhance students' application of HOTS

The use of Lesson Study with HOTS elements in the context of PLC under Professional Development for teachers can be implemented to overcome these such issues. Therefore, choosing and carrying out a proper Lesson Study strategy as an approach is an appropriate and innovative measure the researcher wanted to use to promote the learning of English Language skills learnt using HOTS that can be incorporated by the students, which can also gather great support from schools. If Lesson study is not implemented in schools, lessons will be the same monotonous process during any teaching and learning process as there may not have any improvement in achievement for the students in English Language.

IV. RESEARCH OBJECTIVES

In this study, the researcher had three main objectives which are: -

a) to study to what extent Lesson Study can be effective in promoting HOTS in English Language lessons among secondary school students
b) to study the dynamics of interaction among English Language teachers during the Lesson Study cycles.
c) To explore the challenges faced by teachers in using Lesson Study in promoting HOTS in English Language among secondary school students.

V. RESEARCH QUESTIONS

1) To what extent is Lesson Study effective in promoting HOTS in English Language lessons among secondary school students?
2) How are the dynamics of interaction among English Language teachers during the Lesson Study cycles?
3) What are the challenges faced by teachers in using Lesson Study to promote HOTS in English Language lessons among secondary school students?

VI. SIGNIFICANCE OF STUDY

The Lesson Study, is in a way for school improvement – to improve a school's performance (Zuraidah Abdullah, 2010). It is a yardstick for a teaching and learning process in a teacher's English Language classroom. Both the teachers and students are learning which means that the whole school community is learning and this is in line with the development of learning culture and continuous learning to be in par with the current changes that are taking place (Sherer, 2009). So schools nurture and develop effective HOTS through the Lesson Study for the English Language classroom. This study can contribute to the improvement of teaching – learning process in schools with the fact that discussions for Lesson Study with HOTS being inculcated in it are more organized for teaching and learning to improve the school's students' performances. Teachers can collaborate, interact with one another and proceed with learning until a positive culture in behavioral

aspects is created in the teaching and learning process that is based on some changing beliefs of teachers. Here, the teachers will strive to develop leadership within them by working together in a team on an on-going basis. It can also contribute to new knowledge in the field whereby teaching techniques and pupil progress can develop pedagogy approaches. The insights that can be gained from this study are knowledge development in terms of teaching and learning process, its contents development towards students' achievement and the good efforts that can improve students' learning styles as well as to develop teachers' professionalism in schools when planning lessons. With regards to that, it is hoped that all teachers will give more serious attention and priority to HOTS through the Lesson Study for an English Language classroom. So, it is also hoped that this study will help those who are involved in handling and managing any lessons in classrooms.

VII. LIMITATIONS OF THE RESEARCH

"Limitations of the Research are the potential weaknesses or problems that may be face with the study identified by the researcher. The limitations often relate to inadequate measures of variables, loss or lack of participants, small sample sizes, errors in measurement, and other factors typically related to data collection and analysis. These limitations are useful to other potential researchers who may choose to conduct a similar or replication study". (Creswell, 2005:198)

The limitations of this study can be:

1. The research study is conducted in only limited to schools in a district in Negri Sembilan due to the lengthy process for each school. The results are applicable to this sample though we may be extrapolate to the extent that teaching and learning may improve.
2. The research data is going to be accumulated only by teachers self-reporting their perceptions to show the effectiveness.

Although there may be positive feedbacks, there will be some areas in which the participants will not be satisfied and may suggest changes for a later time. The most usual arguments will be associated to the functional and application features of HOTS through the Lesson Study in terms of the total of participants involved and the meeting schedule which has time constraints. With regards to the group that is involved those involved may mention the need to have more teachers from different levels due to their different ideas and more dedication from teachers to attend frequently on time. This comment will suggest also that the weakening that will be felt towards the end of the semester may impact the meetings atmosphere. Participants may mention the meeting schedule, which will be held after school hours which is at the end of a busy teaching day. The earlier comment may be related to the commitments which are reflected to the fact that some teachers involved may be either too tired to attend or come straight from class, so they may be late due to students refraining them.

VIII. LITERATURE REVIEW

PLC which began in the 1980s brought teachers' strategic planning in the quality teaching and learning processes that were more effective for those involved in it compared to those who were not. PLC consists of individuals who themselves adopt the culture of learning by themselves, giving rise to a scenario where both teachers and students are learning further, growing to include the whole school community (Zuraidah Abdullah, 2010). For educators, PLC is an avenue to develop the continuous learning habit to keep abreast with the current changes (Scherer 2009). PLC is viewed as an action plan to improve and strengthen the effectiveness of the school through constant learning by the school community. (Hord,1997). Generally, PLC consists of a group of individuals, especially teachers, who come together with different ideas to produce or improve a lesson plan or strategy in the school's context for a particular class and also to see to its effectiveness. Then when the lesson or learning strategies are carried out, there will also be a group of teachers observing the lesson product in different ways and strategies (who are involved in their respective levels which comprises of a few teachers including the same teachers who planned the lesson plan), after which, comments and some input will be gathered again for more improvements from what had been observed. This will be done through another meeting to further improve the lesson plan or strategy. It is also considered as a Professional Development whereby, in-house training which is formal to upgrade teachers' content knowledge and pedagogical skills. It is known to be as an essential way of improving the teaching and learning process for the students' academic purpose (J.W. Little (2005). It is more research based kind of scheme from an unanimity setting, which is also from a daily learning scenario to opportunities where learning takes place at work and also from a focus which is based on work of an adult to a focus that is based on the work of the students (Roberts & Pruitt (2003).

Lesson study (Jugyo = lessons; Kenkyu = research / study) originated from Japan in 1870s (Meiji era)

(Dudley, 2011). A group of teachers plan collaboratively and the research lesson is systematically planned, conducted and reflected (Wang-Iverson & Yoshida, 2005). Lesson study was implemented as professional development activities by researchers and educators in their countries (Yoshida, 2012; Chiew, 2009). In PLC, the Lesson Study simply means teachers getting together to plan a lesson. They then carry it out and critique it

afterwards with shortcomings, weaknesses and strengths. After the improvements have been made, the lesson plan is used to teach again to acquire the learning outcomes specified. Higher Order Thinking Skills (HOTS) in the Malaysian education system which was introduced by the Malaysian Education Development Plan (PPPM) 2013 – 2025 to produce creative and critical thinking students to go global where they can apply, analyze evaluate and think creatively (Rajendram, 2018).

Bloom's Taxonomy is widely used to assess levels of thinking skills in education. It comprises of cognitive, affective and psychomotor domains. Dynamics of interaction refers to Lesson Study team members designing the lesson plan collaboratively to achieve the goals and objectives that had been set together (Nur Fatimah, 2013). It also refers to how teachers negotiate and interact with one another as well as improving and learning from each other as they dialogue to meet the goals and objectives of the lesson that is being planned. According to Friend (2000), in education, collaboration is omnipresent. Miller (2005) opined that most of the collaboration are towards educators who work with teachers in the classrooms. Maria and Melor (2016) had emphasized that this is the part that is very crucial because the mutual objectives must be shared by all the team members in the Lesson Study implementation. Lesson objectives in the Lesson Study are impossible to be achieved without good and quality dynamics of teachers' interaction. Nur Fatimah (2013) found that the Lesson Study team members design the lesson plan collaboratively to achieve the goals and objectives that had been set together. Sharing sessions should be on mutual grounds because learning will take place and this is vital as most of the time is spent here before the teaching and learning process is carried out.

HOTS - critical thinking, propagated by Benjamin Bloom (1956) involves synthesizing, analyzing, reasoning, comprehending, application and evaluation, unlike the low-order thinking skills which are attained by habitual repetition and memorization learning styles (Watson, 20I8). In Malaysia, in the education system, HOTS is eminent(Tan & Siti, 2015). The Ministry of Education (MOE) in Malaysia, implemented a stretch of structural reforms which aims to produce high thinking ability human capital. In 2012, the Preliminary Report of the Malaysian Education Blueprint 2013 – 2025 was released by the MOE in order to emphasize HOTS in three aspects of education, namely the written, taught and examined (assessment) curriculum. With HOTS being so prominent, it is a must for teachers to hone its effectiveness in teaching thinking especially through the various educational policies carried out in schools.

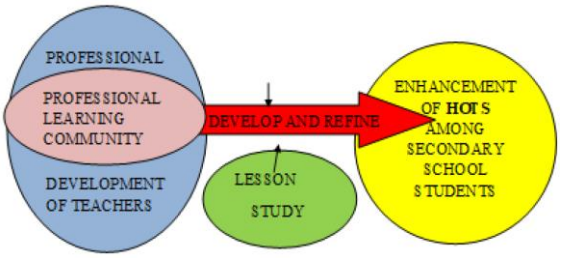

Figure 1: Conceptual Framework

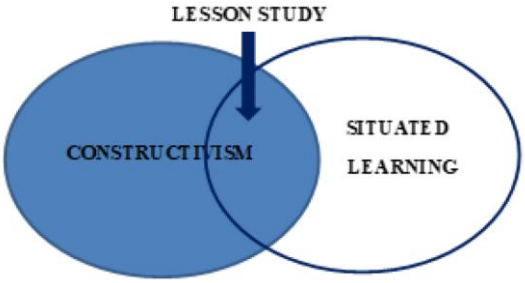

Figure 2: Theoretical Framework

IX. METHODOLOGY

In this research, the methods used to collect data includes interview, observations using teachers' reflections on students' usage of HOTS and collection of artefacts. This was carried out in one school, in one class, carrying out one cycle and involving four teachers.

A. Interviews

In-depth interview with the teachers was conducted individually with audio after each lesson study cycle. This caters to research question 3. The interviews aimed to explore the challenges faced by the teachers in using Lesson Study in promoting HOTS in an English Language classroom. It is obvious that the questions for the Interviews were in depth and preparations were sufficiently detailed to do this research although they may be based on what took place during the teaching and learning process. The interview was conducted based on the Interview Protocol shown in Appendix D which was validated by two validators (V1 and V2). For the purpose of this study, only the guided questions pertaining to instructional practices, the teachers' challenges faced and the teaching and learning process to enhance HOTS were used in order to provide a baseline related to the teachers' beliefs about instructional strategies in teaching of the English Language. A few questions were addressed to the teachers' teaching practice and the challenges faced pertaining to student objectives, lesson study, instructions, activities, frequent use of materials and practices involving their challenges as well as dynamics for the English Language classroom to enhance HOTS through the Lesson Study as well as how HOTS was achieved through the lessons that were planned. The researcher carried out these interviews to study the

challenges faced by the teachers in implementing and promoting HOTS in the lesson study through their interactions they have with one another. These interviews were recorded and transcribed verbatim.

B. Observations

For this lesson study cycle, the teachers went through: (1) Pre Lesson Study Achievement Test on HOTS, (2) Determine teaching goals and objectives and Construct the Lesson Plan, (3) Teach and observe Research Lesson, (4) Reflect and Refine Lesson Plan and (5) Interview Teachers. In order to know if students had acquired the HOTS intended for the teaching and learning process as well as the dynamics of interactions, the teacher can evaluate and observe by looking at the different outcomes that had been produced during the Teaching and Learning process. The researcher observed all the five steps in the lesson study cycle. During the firstand third steps, the researcher observed the dynamics of interaction whereby, how the teachers who were involved in these steps interact with one another. The Reflection forms (Appendix A) involving HOTS in the teaching and learning process were given and briefed to all teachers involved prior to the Teach and Observe Research Lesson stage (step 2) session as a guide. For these, field notes were taken down as well as Appendix A and E which was used by the observing teachers. Video recording was also used to analyse interactions of the teachers except for the teaching and learning sessions involving students in the classroom (following the conditions set by the EPRD at the Ministry of Education). The researcher collected data on students' learning of HOTS by observing Step 3 through the reflection session. During step 2, the teachers observed the students' learning of higher order thinking skills by observing the students' responses during the lessons. Here, since the researcher cannot be anywhere near the classroom (following the conditions set by the EPRD at the Ministry of Education), the researcher briefed her proxy to carry out the teaching and learning as well as the observation procedures. During step 3, the researcher collected data about the students HOTS based on the teachers' reflections which was carried out during the teaching and learning sessions. This is to see if HOTS through the Lesson Study in an English Language classroom really worked out and the activities in the classroom that can be successful in promoting higher order thinking skills among the students. Throughout the lesson study cycle, field notes were written by the researcher to record all the observations. Observations were done to cater to Research Question 2.

C. Collection of Artefacts

The artefacts collected in this study included reflection forms, students' demographic profile form, consent forms, students' essays and lesson plans (Appendix E). The Students' Demographic Profile Form (Appendix B) was given out at the beginning of the study to the students involved. There were two parts in the Students' Demographic Profile Form. Part 1 was on their personal information and Part 2 was on their knowledge level of the English Language as the researcher had intended to have the students' background knowledge in the English Language. In addition, the Teachers' Reflection on Students' Usage of Higher Order Thinking Skills were given to all the observing teachers before the start of the research lesson. This reflection was briefed by the researcher and completed by all the observing teachers and discussed based on what they have observed. All participating teachers met for the reflection session to discuss the effectiveness on all angles of the lesson study regarding HOTS that took place which are stated in the Reflection. Reflection that was discussed was based on individual observations that was collected from all observers. From this data, information on how Lesson Study is effective in promoting HOTS during the Lesson Study cycles were gathered (Research Question 1). Besides that, the researcher also collected the students' essays from the Lesson Study cycle to measure their thinking skills. These essays were planned as the student's worksheets in the Lesson plan. After which, the HOTS instruments (Appendix C) was used to analyse the students' HOTS. Lesson plan and worksheets given during the research lessons were collected for data analysis. Documents which were lesson plans, field notes were used. Participating teachers were asked to share their lesson plans, questions, ideas, and strategies through a reflection discussion based on the observation they had during the Teaching and Learning process using the Lesson Study that was constructed and carried out. The procedure of the research is displayed in Fig,3. Each step is described as following:

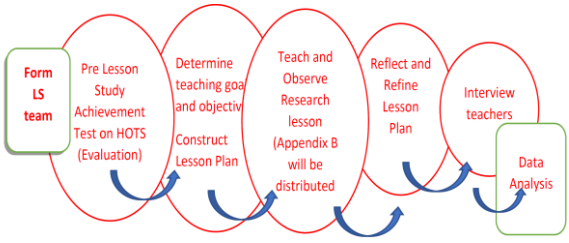

Figure 3: Research Procedure

X. DATA COLLECTION AND ANALYSIS

In order to eliminate bias during this study, the researcher served only as a recorder throughout the research lessons, observations, and reflection sessions as a neutral teacher. To collect the data for this research, interviews, observations for interactions, audio / video of the research lesson, video of the research lesson and reflection sessions, and artefacts collection was used. The interviews, observations and

artefacts were then analyzed through a statistical analysis (Table II and III) and from there, the evaluation for the effectiveness, dynamics of teachers' interactions and the challenges of the Lesson Study in promoting HOTS was carried out based on the paired T-test. There are a number of ways to proceed (Burgess, 1984). This is to gather information pertaining to the perception towards HOTS through the Lesson Study in an English Language classroom that is carried out and the effectiveness of the Teaching and Learning process after that. As mentioned earlier, to collect the data for this research, HOTS Instruments, reflections and observations , and the interviews protocol were used. The research questions had: -

- Teachers' Reflection forms on Students' usage of Higher Order Thinking Skills– these validated reflection questions based on Research question 1 had teachers reflect based on their observations on how the students use their HOTS during the teaching and learning process. The data collected here was used to gather how students have used their Higher Order thinking skills and also how the teachers have stimulated their skills to think.
- Demographic Profile – to get to know the students' background on his / her learning experiences and knowledge on their English Language capabilities.
- HOTS instruments – to gather information about the students' background on their HOTS that was carried out through the Lesson Study. This instrument measured on the students' HOTS level in their essays that were produced during the teaching and learning process that was carried out which had been validated. The instruments used to measure the students' HOTS level will have the profile of respondents to see the background descriptive statistics (where frequencies, mean, mode and percentages would be used to see the successful implementation of the Lesson Study in an English Language classroom) and also to determine how the teachers see HOTS using the Lesson Study strategy – their perception). Paired T-Test was also administered to compare before and after the Lesson Study intervention to promote HOTS.

The indicator description of Instruments assessment used to measure students' HOTS as shown in Table I as adapted from Kusuma et. al. (2017) whereby it was arranged in such a way to measure the students' HOTS with indicators for each HOTS level. After the teaching and learning process took place for the Lesson Study cycle, the exercise which consisted of an Essay question (an informal letter) was administered. The question in the exam that contains the indicators which can measure the students' HOTS to achieve the objectives as shown in Table I.

OBJECTIVE OF QUESTIONS	QUESTIONS INDICATOR	HOTS LEVEL
Writing an informal letter based on notes given in 120 words.	- **Gather information** from notes for relevancy and accuracy - **Criticism** of the issue / scenario - **Infer** about the scenario - **Include** feelings / expression of emotionsin the form of the writing (feelings / emotions of the situation / scenario are written) - **Display** values of the situation through written form (Moral Values)	Evaluation

Table I: Indicator description of Instruments assessment in measuring students' HOTS Adapted from Kusuma, et. al. (2017)

After the exam was carried out, the question papers were marked (with a marking scheme which is more to impression marking) . Teacher keptthe record of the marks that the students have obtained for reference. In the students' demographic profile, students filled in their particular as well as their marks scored for their exams for the researcher to know their English Language background. Teacher also marked students' essays using the criteria marking scheme for each student which categorized them to their respective HOTS. This scheme is for the Essay Paper 2 which emphasizes on an informal letter writing. Students are then categorized according to the HOTS as shown in Table II from another record which is based on each student's HOTS categories which is derived from Table III.

HOTS CATEGORY	NO. OF STUDENTS (FREQUENCY) (/32)									
	5	%	4	%	3	%	2	%	1	%
Creating										
Evaluating										
Analysis										

Table II: Students' Higher Order Thinking skills findings Adapted from Nirwanto (2015)

NAMES	CREATE (5)	EVALUATE (5)	ANALYSIS (5)	TTL (15)

Table III: HOTS in English Language Classroom for 30 students (to be filled / ticked / kept by the English Language teacher as reference / record)

According to Kusuma, et al (2017), this developed HOTS instrument can help measure the students' HOTS in learning. This result style is also parallel to Treagust's, et al (2001) research whereby this scoring sheet for assessment is a guide for high school students' understanding in teaching Science and also can increase their learning ability. Later, in findings and data analysis, calculations can be done to obtain Mean and Mode to see the effectiveness of HOTS among the students via these instruments.

- **Interviews** – the validated Interview protocol questions are in-depth to cater to Research question 3. These questions are based on the challenges faced by the teachers in promoting HOTS in their research lesson process as well as the preparation and how HOTS is stimulated in the curriculum to be taught. Here, the data collected was used to analyse the many challenges the teachers had faced during the whole lesson study cycle.
- **Audio / Video** – These was used to record all the steps in Figure 1 (except for Stage 2) in order to collect data where the teachers' dynamic of interactions was concerned. The way the teachers communicate with one another, how students get engaged in classroom activities were observed through these media to cater to Research Question 2.
- **Verbatim** – Field notes were taken by the researcher based on what had been observed. This is to cater to Research question 2 and 3 to see to the dynamics of interactions among the teachers involved during the Lesson Study cycle which involve HOTS.

XI. FINDINGS

The findings had shown some improvement after the 'treatment' was given. It is obviously seen in the two tables shown on the difference in the mean for before and after the treatment.

Before

HOTS CATEGORY	NO. OF STUDENTS (FREQUENCY) (/32)										
	5	%	4	%	3	%	2	%	1	%	Mean
Creating											
Evaluating					6	18.75	13	40.625	13	40.625	1.78125
Analysis											

After

HOTS CATEGORY	NO. OF STUDENTS (FREQUENCY) (/32)										
	5	%	4	%	3	%	2	%	1	%	Mean
Creating											
Evaluating			1	3.125	3	9.375	21	65.625	7	21.875	1.9375
Analysis											

Table 4: Students' Higher Order Thinking skills findings

XII. DISCUSSIONS AND RECOMMENDATIONS

The Lesson Study should be studied and evaluated in depth and this can be done when the enthusiasm for professional development that directly addresses the current needs and interests of the school is leveraged. Automatically, this involves better dynamics of teachers' interactions. It is better for a more interdisciplinary group of professional teachers, more topics which vary that are focused which involves HOTS and a time that is more appropriate for meeting to produce quality Lesson Studies.

XIII. CONCLUSION

In a nutshell, it is hoped that this study can be used by the authorities in the ministry who are in charge of implementing and evaluating this language component in HOTS through the Lesson Study strategy in an English Language classroom that involves dynamics of interactions among teachers which should be emphasized in the classroom syllabus as well as the teaching and learning process. With regards to that, it is also anticipated that all teachers will give more serious attention and priority to this language when planning a Lesson Study for an English Language classroom to promote HOTS. This study will and can surely help those who are directly or indirectly involved in handling and managing the teaching and learning process in classrooms particularly using the different creative skills in a Lesson Study.

REFERENCES

[1] British Council (2018). Higher Order Thinking Skills. Available at http://www.teachingenglish.org.uk/blogs/sakilandeswari/higher-order-thinking-skills-hots. Retrieved on 27th January 2019

[2] Burgess, R.G. (1984). In the Field: An Introduction toField Research. London: Allen & UnwinCox, J (2009). Teaching Strategies to Promote Critical Thinking. Retrieved from http://www.teachhub.com/teaching-strategies promote-critical-thinking .

[3] Chiew, C. M. (2009) Implementation of Lesson Study as an Innovative Professional Development Model among

Mathematics Teachers, unpublished PhD thesis, University Sains Malaysia, Penang, Malaysia.

[4] Dudley, Peter (2011). 'Centre for Excellence in Teaching and Learning' Learning Toolkit: Lesson Study. Bethlehem University [3] Friend, M. (2000). Myths and Misunderstandingsabout Professionals Collaboration. Remedial and Special Education, 21, 130-134.

[5] Hord, S.M. (1997a). Professional Learning Communities: Communities of Continuous Inquiry and Improvement. Austin, TX: SouthwestEducational Development Laboratory.

[6] Hord, S.M. (1997b) Professional Learning Communities: What are They and Why are They Important? Issues about Change, 6(1). Austin, TX: Southwest Educational Development Laboratory.

[7] Kang, Soon Chen (20I3). Poor Show in Pisa Rankings. Retrieved from https://www.thestar.com.my/news/education/2013/12/08/poor-show-in-pisa-rangkings/

[8] Kian Ming (2008). Helping Kids in Rural Areas. Retrieved at http://educationmalaysia.blogspot.my/2008/04/helping-kids-in-rural-areas.html?m=1

[9] Kusuma, Merta Dhewa, Rosidin, Undang, Abdurrahman & Suyatna, Agus (2017). The Development of Higher Thinking Skills(HOTS) Instrument Assessment in PhysicsStudy. IOSR Journal of Research & Method in Education (IOSR – JRME) e-ISSN: 2320 – 7388,p-ISSN: 2320 – 737X Volume 7, Issue 1 Ver.V (Jan – Feb 2017),pp 26 – 32 www.iosrjournals.org

[10] Little, J. W. (2005). Nodes and Nets: Investigating Resources For Professional Learning in Schools and Networks: Working Paper for National College of School Leadership Nottingham, UK: Berkley / California. University of California and National College forSchool Leadership.

[11] Malaysia. Ministry of Education (2012). Malaysia Education Blueprint 2013 – 2025. Kementerian Pendidikan Malaysia. Preliminary Report. Retrieved from http://www.moe.gov.my/userfiles/file/PPP/Preliminary-Blueprint-Eng.pdf

[12] Maria Cynthia Intik Anak Eddy & Melor Md Yunos(2016). Professional LearningCommunities: Major Challenges Faced byTeachers in Conducting PLC. A Paper presented at the E-Proceeding of the 3rdWorld Conference on Intergration of Knowledge 2016 on 28th& 29th November 2016 in Langkawi.

[13] Miller, M (2005, November. Collaboration Skills for Teachers. Paper presented at themeeting of the Teacher Education Division –Council for Exeptional Children, Portland, ME.

[14] Nor Hashimah Jalaluddin, MA Norsimah, AB Kesumawati (2008). The Mastery of English Language Among Lower Secondary School Students in Malaysia: A Linguistic Analysis.European Journal of Social Sciences 7 (2), 106 - 119. Available at https://scholar.google.com.my/scholar?hl=en&as_sdt=0%2C5&as_vis=1&q=decline+of+English+Language+among+malaysian+secondary+school+students+&btnG=£d=gs_qabs&u=%23p%3D5HT4U3-hodMJ. Retrieved on 15th January 2019

[15] Nur Fatimah (2013). Challenges in Implementing Lesson Study at Higher Education. Available athttps://www.academia.edu/4961319/CHALLENGES_IN_IMPLEMENTING_LESSON_STUDY_AT_HIGHER_EDUCATION

[16] Puchner, Laurel D.& Taylor, Ann R. (2006). LessonStudy,Collaboration and Teacher Efficacy: Stories from Two School-Based MthLesson Study Groups. From the Journal Teaching andTeacher Education 22 (7) 922 – 934. Available at https://scholar.google.com.my/scholar?hl=en&as_sdt=0%2C5&as_vis=1&q=using+Higher+order+thinking+skills+in+a+Lesson+Study&btnG=£d=gs_qabs&u=%23p%3DIT2m82_NhYAJ

[17] Rajendram, R (2018). Key to Higher Order Thinking Skills Retrieved from https://www.thestar.com.my/news/education/2018/04/08/key-to-higher-order-thinking- skills/

[18] Rajendran, N., (2001). The Teaching of Higher Order Thinking Skills in Malaysia. Published in the Journal of Southeast Asian Education, Vol.2, No. 1, 42 -65

[19] Roberts, S.,& Pruitt, E (2003). Schools as Proffesional Learning Communities, Thousand Oaks, CA: Corwin Press.

[20] Sherer, M. (2009). The Cardinal Principles of Secondary Education. Accessed at http:Nwww.nd.edul-rbarner/www7/cardprin.htl

[21] Spolsky, Bernard & Sung, Kiwan (2015). Introduction. Journal of Secondary School English Education in Asia, 17 – 28. Available at https://scholar.google.com.my/scholar?hl=en&as_sdt=0,5&as_vis=1&q=efforts+to+enhance+Higher+order+thinking+skills+among+malaysian+secondary+school+students£d=gs_qabs&u=%23p%3DySO-b0_QI6AJ

[22] Tan, S.Y. & Siti Hajar Halili (2015). Effective Teaching of Higher Order Thinking (HOT) in Education. Published in The Online Journal of Distance and E-Learning, April 2015, Vol 3, Issue 2

[23] Treagust, DF, R. Jacobowitz, JL. Gallagher, and Parker (2001). Using Assessment as a Guide in Teaching for Understanding: A CaseStudy of a Middle School Science Class Learning about Sound. Science Education 85 (2), pp137 – 157, 2001.

[24] Wang-Iverson, P., & Yoshida, M. (Eds.). (2005). Building our understanding of lesson study. Philadelphia: Research for Better Schools.

[25] Watson, S. (20I8). Higher Order Thinking Skills in Education. Retrieved from https://www.thoughtco.com/higher-order-thinking-skills-hots-education-3111297

[26] Yoshida, M. (2012). Mathematics lesson study in the United States. International Journal for Lesson and Learning Studies, 1(2), 140–152. 66(2), 181-191. Retrieved from https://www.emeraldinsight.com/doi/abs/10.1108/20468251211224181

[27] Zohar, A., & Dori, Y.J., (2003). Higher Order ThinkingSkills and Low Achieving Students:Are they Mutually Exclusive? The Journal of the Learning Sciences 12 (2), 145 – 181

[28] Z.. Abdullah (2010).KepimpinanTransformasi: Pembentukan Organisasi Pembelajaran sebuah Sekolah di Selangor. Tesis Master yang tidak diterbitkan. Institute PengajianKepengetuaan, University Malaya

★★★