IMPROVING STUDENT ENGAGEMENT IN WRITING USING NUMBERED HEAD TOGETHER (NHT)

Mar’atul Hanifah, Teguh Sarosa, Muh. Asrori

English Education Department of Teacher Training and Education Faculty
Sebelas Maret University
Email: maratulhanifaah@gmail.com

ABSTRACT

This article presents the result of the research study aimed at finding out: to what extent Numbered Head Together can improve the student engagement in learning English; and to describe the difficulties when implementing Numbered Head Together in this research. The research method used in this study is classroom action research study which was conducted in class VIII B of SMP Negeri 16 Surakarta. The research data were collected by using observation, questionnaire, interview, diary, and student activities observation paper, pre-test and post-test. The research findings showed that: (1) the implementation of Numbered Head Together gave positive impact on learning situation, students’ behavior and students’ achievement in learning English. (2) There were some difficulties of the implementation of Numbered Head Together technique which has been gave several alternative solutions by the researcher.

Key Words: Numbered Head Together, Student Engagement, Writing Skill

ABSTRAK

Artikel ini memaparkan hasil penelitian yang bertujuan untuk mengetahui sejauh mana Numbered Head Together dapat meningkatkan keterlibatan siswa; dan untuk mendeskripsikan kesulitan yang dihadapi ketika teknik Numbered Head Together diterapkan di dalam penelitian ini. Penelitian ini menggunakan metode Penelitian Tindakan Kelas (PTK) telah dilakukan di kelas VIII B of SMP Negeri 16 Surakarta. Data dikumpulkan menggunakan pengamatan, kuesioner, wawancara, lembar pengamatan aktivitas siswa, catatan harian, tes sebelum teknik diimplementasikan dan tes setelah teknik diimplementasikan. Berdasarkan hasil penelitian menunjukkan bahwa: (1) penerapan teknik Numbered Head Together memberikan dampak positif bagi situasi pembelajaran yang lebih kondusif dan menarik, perilaku siswa yang semakin terlibat dalam proses pembelajaran dan nilai siswa yang meningkat. (2) Terdapat beberapa kesulitan dalam pengaplikasian Numbered Head Together di penelitian ini yang telah diberikan beberapa alternative solusi dari peneliti.

Kata kunci: Numbered Head Together, Student Engagement, Writing Skill
Student engagement is very important in teaching learning process since knowledge, skills, and attitude cannot be transferred instantly but need student’s effort to process it. According to Permendiknas RI Number 41 (2007:8) learning process on each unit of primary and secondary education should be interactive, inspiring, fun, challenging, and motivating learners to participate actively and provide sufficient space for innovation, creativity and independence according to their talents, interests, and physical and psychological development of learners. If we observed what was stated in Permendiknas, it indicates that the engagement of students is a must. This shows that teaching that which is designed by teacher should be oriented in student activity.

Student engagement is students’ time, energy, participation and interest that a student shows in school which is designed to enhance learning at school which involves both behaviors (such as persistence, effort, attention) and attitudes (such as motivation, positive learning values, enthusiasm, interest, and pride in success).

Engaging students in the learning process increases their attention and focus, motivates them to practice higher-level critical thinking skills and promotes meaningful learning experiences. Student engagement could only happen if students are given the opportunity to participate or involved in the learning process. Commonly, in the process of teaching and learning, the students are required to submit and adhere to rigid rules and procedures that actually restrict creative thinking and skills. At that process, students were told to memorize more than explore, ask questions or experiment. At that situation teacher’s role is very important in creating learning method which can stimulate student to engage in learning process.

Based on the fact that I found from observation in the pre-research conducted in class VIII B of SMP N 16 Surakarta, it showed that student
engagement in learning English was still low. This was indicated from students’ behavior during learning process. The problem indicators are: 1) Students looked passive in learning process. It can be seen from students’ silence when teacher gave a chance for them to ask, to answer and to perform in front of the class. 2) Students looked uninterested in learning process. It can be seen by their confession that English is difficult lesson. Students were also busy with them or talked to their friend during learning process. 3) Students did not show their effort in learning process. They were lazy completing the task from teacher. Many of them copied their friends’ work in finishing homework given by teacher.

The cause of the problem comes from several factors. It may come from students, teacher, media or technique used in teaching learning process. (1) Students looked passive in learning process. It can be from teacher that could not create learning situation that will stimulate student activeness or engagement. (2) Students did not have effort to learn English because it is rarely used in their daily life. According to their admission when the researcher asked them the reason why they seemed uninterested in learning English, they revealed that English is difficult lesson which is not their mother tongue that they do not use it in their daily life. Therefore they were not familiar with it. (3) The topic implemented in the learning process is not interesting or unfamiliar for students. They will be enthusiastic if the topic is interesting and when the topic is boring they tend to ignore the lesson. (4) Learning media used by the teacher made some students felt bored. From the result of observation, the researcher found that the English teacher used only student worksheet as learning source. All the task and learning materials come from it. Teacher seldom used teaching media such us video, picture, or audio. (5) Furthermore, the technique that was used was monotonous. He stood in front of the class, read the student worksheet, gave some explanation, and then asked students to complete some
exercises. He rarely made some work group that can stimulate students to be more active in learning process. Some of students revealed that the way the teacher teaching made them sleepy and bored.

In other word teachers’ style in teaching have not successfully engage student to learning process. Whereas teachers are key in fostering student engagement. Janes, et al in Olson (2008:9) mentions the role of teacher that is as a guide facilitator. The teachers create opportunities for students to work cooperatively, to solve problems, do authentic tasks, and construct their own meaning. They learn along with the students.

Knowing the important roles of teacher in learning process, teacher should create a teaching learning process that stimulates students to engage in learning process. Active learning can be the solution to gain student engagement in learning process. Michael Prince in Djuliana (2011) defines active learning is a any instructional method that engages students in the learning process. In short, active learning requires student to do meaningful learning activities and think about what they are doing.

Active learning is an umbrella term that refers to several models of instruction that focus the responsibility of learning on learners. The form of active learning that can be applied to stimulate students’ engagement is cooperative learning method. The term cooperative learning (CL) refers to students working in a team on an assignment or project under conditions in which certain criteria are satisfied, including that the team members be held individually accountable for the complete content of the assignment or project. (Felder, Brent 2007). Cooperative learning has many forms of activities that the main goal is to stimulate students’ engagement to involve in learning process by working in group. One of the forms of cooperative learning method is Numbered Head Together method.

Numbered Head Together method is a cooperative learning strategy developed by Spencer Kagan in 1993. In this method students are placed in
groups and each person is given a number (from one to the maximum number in each group). The teacher poses a question and students "put their heads together" to figure out the answer. The teacher calls a specific number to respond as spokesperson for the group. This strategy ensures that each member knows the answer of problems or questions asked by the teacher. Because no one knows which number will be called, all team members must prepare to present the result of the discussion.

Kessler (1992:17) stated that Numbered Heads Together is a simple four-step cooperative learning structure as follows: students numbered off within groups. If students are in groups of four, every student will be either 1, 2, 3, or 4. The teacher asks the students questions. Students put their heads together to make sure everyone on the team knows the answer. The teacher calls a number from one to four. Only students with that number can raise their hands if they know the answer.

Numbered Head Together leads students to be more active in learning process by discussing the topic given by teacher, questioning something that they have not understood, sharing ideas to others in solving problem and performing to present the result of discussion. That activity helps student to engage in learning process and improve classroom to be conducive.

This research aims to analyze to what extent Numbered Head Together can improve the student engagement in learning English; and to describe the difficulties when implementing Numbered Head Together in this research.

**RESEARCH METHODS**

The research reported on this article was adopted by the principle of classroom action research to analyze to what extent Numbered Head Together can improve student engagement in learning English and to describe the difficulties when implementing Numbered Head Together in this research.
This classroom action research was conducted in class SMP Negeri 16 Surakarta. There were 30 students involved in this research. It was carried out on March until May 2016.

The research started by identifying the problem faced by students related to student engagement. After finishing initial step in identifying problem, the research was designed. It was designed in two cycles. The first cycle was conducted in two meetings for learning process and one meeting for test. The second cycle also consisted of two meetings for learning process and one meeting for post-test. Each cycle went through some steps: planning, acting, observing, and reflecting.

Getting finish with the planning, the action was implemented. Numbered Head Together was implemented in teaching writing to improve student engagement in learning English. During the implementation of the action, an observation was conducted. It was aimed to investigate student engagement during the action, and students’ writing competence. There were tests at the end of each cycle to know the impact of the implementation Numbered Head Together which can improve student engagement and it gives positive impact to student achievement. The implementation of the action and observation was reflected in the end of each cycle. The data got was analyzed to get the result of the action. It was used to determine for the next revising plan and the result of the research whether successful or not.

In this research, the data were collected by using techniques of interview, observation, and tests (pre-test and post-test). I used the unstructured or informal interview where the interviewer and interviewees engage in free-flowing conversational process based on the issues and topics of the research study. The observation was more than just looking and seeing. Since the task of the observation represented the real condition that happen in the place of the research. When conducting the pre-research, I observed not only learning situation,
but also teachers’ technique, students’ behavior and students’ achievement. During collecting data in pre-observation in the teaching and learning process, student engagement that was low became the problem that was found at that class and Numbered Head Together was the technique that was chosen to overcome that.

After collecting data, the next step was to analyze the data using two techniques as stated by Koshy (2005:110) they are qualitative and quantitative. Qualitative technique comes out as word rather than numbers while quantitative ones appear as number whose meaning is derived from statistical procedures employed.

RESEARCH FINDINGS AND DISCUSSIONS

From the result of pre-observation and pre-test, it can be identified that student engagement and students’ ability in learning English of class VIII B of SMP Negeri 16 Surakarta was low. The students’ low engagement can be seen by observation when teacher explained the material, almost student busy with themselves and did not pay attention to him. In addition, the students’ low engagement can be proved from questionnaire, that 57,9% students kept silent when teacher gave them chance to ask.

The student low engagement should be improved by implementing teaching techniques that stimulates them in several activities that would engage them in learning process. The student (CNW) said “the atmosphere of the class was boring and monotonous. The way of teaching was not interesting and just doing the assignment in LKS”. The students needed an interesting technique in learning English class. In implementing the teaching learning process, Numbered Head Together technique was used to improve student engagement in learning English mainly in writing skill. The target of this research was the improvement of student engagement which concerns with one of aspects of learning English such as writing skill.

The improvement of student engagement was proved when they
displayed certain typical characteristics of engagement. They are: verbal participation, student confidence, consistent focus, meaningfulness of work, and student responsibility in completing task/homework. In the result of interview and observation, the situation during the research can be described in table 1.

Table 1. The Improvement of Student Engagement in Cycle 1

<table>
<thead>
<tr>
<th></th>
<th>Pre Research</th>
<th>Cycle 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Verbal Participation</td>
<td>Students were not active in the classroom. Almost all students were not confident when they answered the teachers’ question, delivered their ideas, or asked teacher about their difficulties, and presenting their presentation in front of the class.</td>
<td>Students participated in delivering their ideas through group discussion when they were discussing. There were 11 students who actively participated in group discussion. Some students also rather brave to ask about their difficulties related to the material. It happened when researcher visited one by one group when they were discussing. There were 16 students who asked their difficulties.</td>
</tr>
<tr>
<td>2) Student confidence</td>
<td>Students did not want to complete task from teacher and relied on their friends because they did not believe with themselves that they can do that. They assumed that English is difficult lesson.</td>
<td>Students did not feel inferior during discussion. There were 26 students which was confident with their ability in group discussion. Students did the task by themselves, they believe with their ability in completing homework. There were 16 students who did the task by themselves.</td>
</tr>
<tr>
<td>3) Consistent focus</td>
<td>Students were very disturbed by their situation. They cannot concentration fully to the learning process. most of them talked to their friends or busy with themselves.</td>
<td>Students paid attention to teacher explanation during learning process. there were 11 students who focused on teachers’ explanation. Students did not busy with themselves when discussion. There were 14 students who focused on discussion process.</td>
</tr>
<tr>
<td>1) Meaningfulness of work</td>
<td>Students had not found their excitement in learning English. They assumed that English was difficult lesson. They seemed bored followed the lesson.</td>
<td>Some students enjoyed to join learning process using Numbered Head Together technique. There were 15 students who looked interest to join learning process using Numbered Head Together. The students had goo interaction among the member group. There were 12 students who work cooperatively during discussion.</td>
</tr>
</tbody>
</table>
2) Completing Homework
Almost all students completed the homework or assignment at school. They argued that the assignment is difficult, so they prefer to copy from the cleverest student. Moreover there was student who did not complete the homework and argued that they forgot.

Completing Homework
✓ The students completed the task given by teacher. There were 15 students who directly complete the task after teacher gave the instruction.
✓ Some students submitted the task on time. There were 12 students who submitted the task right on the deadline.

In general, the teaching-learning activity ran well. The situation of the class was conducive. Most of the students looked engage at the activity in cycle 1. They showed their interest and enthusiasm toward teaching activity. But, the result of some problems during the implementation of the action

Table 2. Unsolved Problems in Cycle 1 and the Offered Solutions

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
</table>
| 1. The students still had low verbal participation. They were afraid to answer my question, or delivering question when they were confused. They keep silent when they asked to give comment to another group; they also did not involve actively in discussion. | a. More understanding are given that everybody makes mistake, so don’t be afraid to answer teacher’s question.  
b. Visited every groups to improve the intensity of interaction, so that students could ask which part they have not know.  
c. Walked around and visited every group to check their involvement during discussion.  
d. I gave a reward to the most active group during discussion and presentation to stimulate their engagement. |
| 2. Student confidence  
Students did not want to complete task from teacher and relayed on their friends because they did not believe with themselves that they can do that. They assumed that English is difficult lesson | a. I gave punishment for students who copy their friends’ answer  
b. I pay attention when students do their task in the classroom to ensure that they work by themselves.  
c. I gave them an understanding that they have to confidence with their ability |
| 3. Meaningfulness of work  
Students always complain if they gave a task from teacher because they did not know their purpose of every meeting in learning English. | a. I optimize the use of Number Head Together as the technique attract students’ interest.  
b. I make them compete with another group who is the fastest in finishing the task, they would get reward. It would increase student’s interest in finishing the task. |

The problem faced in the first cycle gave strong decision to conduct the second cycle. In second cycle the focus would give more on how to engage the students.
students in learning English so that the improvements could cover all characteristics of the student engagement. I analyzed the students’ weaknesses in engagement and tried to give solution, then applied the solution in second cycle. More attention also gave to students which still had low understanding to the material. Therefore at cycle 2 student engagement improved as describe in table 3.

Table 3. The Improvement of Students’ Engagement in Cycle 2

<table>
<thead>
<tr>
<th></th>
<th>Cycle 1</th>
<th>Cycle 2</th>
</tr>
</thead>
</table>
| **Verbal Participation** | ✓ Students participated in delivering their ideas through group discussion when they were discussing. There were 11 students who actively participated in group discussion.  
✓ Some students also rather brave to ask about their difficulties related to the material. It happened when researcher visited one by one group when they were discussing. There were 16 students who asked their difficulties. | ✓ Students participated in delivering their ideas through group discussion, asked their difficulties, and answered teachers’ question. There were 30 students who did this during learning process.  
✓ The students also tried to give feedback to other group presentation. There were 19 students who actively give feedback to other groups’ presentation. |
| **Student confidence**   | ✓ Students did not feel inferior during discussion. There were 26 students which was confident with their ability in group discussion.  
✓ Students did the task by themselves, they believe with their ability in completing homework. There were 16 students who did the task by themselves. | ✓ All students did not feel inferior to their friends during discussion, they did the task by themselves, and they performed in front of the class well.  
✓ The students also did not cheat to their friends’ answer when they had a test. There were 20 students who did the test by themselves. |
| **Consistent Focus**     | ✓ Students paid attention to teacher explanation during learning process. There were 11 students who focused on teachers’ explanation.  
✓ Students did not busy with themselves when discussion. There were 14 students who focused on discussion process. | ✓ All Students paid attention to teacher explanation during learning process, they did not busy with themselves during discussion and they showed appropriate gesture during learning process such us nod when they understood and laugh when it was funny.  
✓ The students also did not looked daydream during learning process. There were 21 students who looked concentrated to learning process.  

Meaningfulness of work
✓ Some students enjoyed to join learning process using Numbered Head Together technique. There were 15 students who looked interest to join learning process using Numbered Head Together.
✓ The students had good interaction among the member group. There were 12 students who work cooperatively during discussion.

Meaningfulness of work
✓ All students enjoyed joining learning process using Numbered Head Together technique, they had good interaction among the group member, and they seriously complete the task.
✓ The students also actively participate in group discussion. There were 22 students who actively involved to discussion process.

Completing Homework
✓ The students completed the task given by teacher. There were 15 students who directly complete the task after teacher gave the instruction.
✓ Some students submitted the task on time. There were 12 students who submitted the task right on the deadline.

Completing Homework
✓ All students completed the task given by teacher, they submitted on time, and they actively contributed to discussion process. The students also bought the equipment asked by teacher. There were 23 students who bough the learning equipment.

Since there were several improvement of student engagement characteristics which has positive correlation to student achievement, therefore the student writing score also improve from based score to cycle 1 and improved to cycle 2 which is describe in table 4. I took 10 students as sample of student writing score, since the focus of this research is student engagement, so the writing score data was only the support data not the primary data.

Table 4. The Improvement of Students’ Achievement in Writing Test

<table>
<thead>
<tr>
<th>No.</th>
<th>Aspects of writing</th>
<th>Pre test score</th>
<th>Test 1 score</th>
<th>Post test score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Content</td>
<td>187</td>
<td>194</td>
<td>217</td>
</tr>
<tr>
<td>2.</td>
<td>Organization</td>
<td>129</td>
<td>152</td>
<td>165</td>
</tr>
<tr>
<td>3.</td>
<td>Vocabulary</td>
<td>127</td>
<td>153</td>
<td>163</td>
</tr>
<tr>
<td>4.</td>
<td>Language Use</td>
<td>139</td>
<td>162</td>
<td>176</td>
</tr>
<tr>
<td>5.</td>
<td>Mechanism</td>
<td>33</td>
<td>34</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Sum of the score</td>
<td>615</td>
<td>694</td>
<td>758</td>
</tr>
<tr>
<td></td>
<td>Students’ mean score</td>
<td>61.5</td>
<td>69.4</td>
<td>75.8</td>
</tr>
<tr>
<td></td>
<td>Sum of the student</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

After analyzing the result of the observation in the first cycle, there were differences with the result of the action in second cycle. In second cycle positive result was gained as the improvement from the first cycle, they are as follow: the researcher could manage the class better than in first
cycle. Even though some students were noisy and sometimes disturbed the other friends but the number of them was very less than in cycle 1 and I could manage them well. In addition, most of the students made noise in the class because they had discussed the task and asked question to me. Moreover this could be as the indicator that the students did the learning activity enthusiastically. I gave encouragement to the students. The reward was given to the group or student which actively involved their group member in discussion, and also a group which engaged in presentation by giving feedback.

Based on the result of observation, I came to the conclusion that Number Head Together technique made the students became active and engaged in the teaching and learning process because by Number Head Together, the class situation become more alive. They didn’t feel bored anymore because the monotonous learning technique which they just sit and listen teachers’ explanation, then do the task. Number Head Together also made the students easy to learn English since they had to work in group and to discuss the answer. As the result, the students showed that they made good improvement on their engagement.

The use of NHT in learning English made the lesson more interesting since the technique stimulate student to actively involve to learning process. They become more active and engaged with the lesson. Here are several strengths of the implementation NHT in teaching learning English:

1. NHT gave students a chance to gain more knowledge by sharing their ideas trough group discussion in completing teachers’ task.

2. One of the step in NHT which students should present the result of discussion by performing in font of the class after teacher called the number randomly, made every member becomes responsible of their part. They have to make sure that the answer is right and their performance is satisfied since they do not know which number will be called. Therefore, every member...
should prepare their best and be ready to perform in front of the class.

3. NHT technique gave same opportunity for every member to deliver their ideas and discuss in group discussion to find the answer or solution. There should no domination in group. Every member has same chance to revealed what is in their head in completing teacher task.

4. By discussing with every member in a group, it will improve the interaction among them. Students become actively engaged in that activity by share their opinion and get the feedback from the other. In other word, it will improve their cooperative work skill.

5. NHT technique can be applied in every any kinds of level of education. However, teacher should adjust the method with the material that will be given. Teacher should consider that the technique is appropriate with the material or not.

Beside the strength of NHT technique, there were also the difficulties that occurred in learning process, which was described at table 5.

Table 5. The Difficulties of Using Number Head Together in English Class

<table>
<thead>
<tr>
<th>Difficulties</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Not all students willing to put the headband number on their head.</td>
<td>a. The persuasion were given to them to put it on their head and give the understanding that they used it just at one moment that is when they discussing using Number Head Together technique.</td>
</tr>
<tr>
<td>b. Not all the students accept the teachers’ group distribution. They want choose the member of the group by themselves.</td>
<td>b. To overcome this problem, the understandings were given that all the students in the class are friend. A good student can cooperate with all the students no matter the condition of students. I also encouraged them by saying that this method will improve their interaction skill in social life.</td>
</tr>
<tr>
<td>c. Some students are lazy and relied on their friend by not giving argument in complete the task.</td>
<td>c. I walked around the class and visited every group to investigate whether every member actively involved in discussion or not.</td>
</tr>
</tbody>
</table>
After doing several procedures of the action, observing and analyzing the action, the result of the research showed that there were improvements in students’ behavior that were more engaged to learning process. The primary focus of this study is the use of NHT in order to enhance student engagement in learning English. The improvement of student engagement could be seen from the result of the observation toward the teaching and learning activity. At the end of the cycles, there were better results that there was an improvement of student engagement, which the characteristic are: verbal participation, student confidence, consistent focus, meaningfulness of work and the responsibility to do the task.

The findings that NHT as cooperative learning method can improve student engagement can be seen in the way students discuss to solve the problem. Schaben (2007) stated that cooperative learning is a way of allowing students to support other students. Often students can explain problem-solving tactics to another student better than a teacher can, while the teacher often cannot see the perspective of the student.

As their engagement improved, the achievement also improved. It can be seen on the result of writing which improved from before and after the technique implemented. It is because engaged students are actively involved in learning process, so they can absorb the material well. Based on the explanation about students’ improvements in learning English, it can be concluded that optimizing the use of NHT can enhance student engagement in learning English.
CONCLUSIONS

By using Number Head Together, I found that students were more enthusiastic and interested in the teaching. This technique could build students attention to the learning since they had to engage in the process. Most of the students were not bored when following the lesson used Number Head Together technique. The students’ activity which was observed to measure their engagement in every meeting during this technique implemented was also improved. They showed their progress in engaging to learning activities. After the technique implemented, it shows that students’ activity become more reflected to the characteristics of student engagement. As their engagement improved, the achievement also improved. It can be seen on the result of writing which improved from before and after the technique implemented. It is because engaged students are actively involved in learning process, so they can absorb the material well.

REFERENCES


United Stated of America: Pretince Hall Regents


