

## **A Comparative Study Between Learning Cell and Direct Instructional**

### **Method to Teach Reading**

**Purnawati Zuhro, Ngadiso, Siswantoro**  
**English Education Department**  
**Teacher Training and Education Faculty**  
**Sebelas Maret University**

**Email : ipoenkzuhro@gmail.com**

#### ***Abstract***

*This research aims to find out whether there is a significant difference in the achievement of reading skill between the students taught using learning cell and those taught using direct instructional method and whether learning cell is more effective than direct instructional method to teach reading. Related to the objectives of the research, the method used was experimental method. The research was conducted in August-October 2014. The population of this research was the eighth grade students of SMP N 14 Surakarta in the academic year of 2014/2015 and the sample were class VIII A as the experimental group and VIII B as the control group. The data were collected by conducting a test and analyzed by using t-test formula. The computation of the data shows that there is a significant difference in reading skill between the students taught using learning cell and those taught using direct instructional method and that learning cell is more effective than direct instructional method to teach reading.*

*Key words: Reading Skill, Learning Cell, Direct Instructional Method*

#### ***Abstrak***

*Penelitian ini bertujuan untuk membuktikan apakah ada perbedaan signifikan dalam pencapaian kemampuan membaca antara siswa yang diajar dengan menggunakan learning cell dan siswa yang diajar dengan menggunakan direct instructional method serta untuk membuktikan apakah learning cell lebih efektif daripada direct instructional method untuk mengajar membaca. Sehubungan dengan tujuan dari penelitian tersebut, metode yang digunakan adalah metode eksperimental. Penelitian ini telah dilaksanakan pada bulan Agustus – Oktober 2014. Populasi dari penelitian ini adalah siswa kelas delapan SMP N 14 Surakarta tahun ajaran 2014/2015 dan sampel yang diambil adalah kelas VIII A sebagai kelompok eksperimental dan VIII B sebagai kelompok kontrol. Data diperoleh dengan melangsungkan tes dan dianalisa dengan menggunakan rumus*

*t-test. Perhitungan dari data menunjukkan bahwa ada perbedaan signifikan dalam kemampuan membaca antara siswa yang diajar dengan menggunakan learning cell dan siswa yang diajar dengan menggunakan direct instructional method serta bahwa learning cell lebih efektif daripada direct instructional method untuk mengajar membaca.*

*Kata kunci: Kemampuan Membaca, Learning Cell, Direct Instructional Method*

Learning a language is expected not only to help the students realize themselves, their culture, and others but also to help them to express ideas and opinion to participate in their lives. In this global area, English is a means of communication in the daily life as both written and spoken language. It plays an important role in the communication with other people in the world.

English lesson is divided into two skills, receptive and productive. Reading and listening are said to be receptive skills, while writing and speaking are productive skills. Reading, as an essential skill for learners of English as a second language, is the most important skill to master in order to ensure success not only in learning English, but also in learning in any content class where reading in English is required (Nunan, 2003: 69). In other words, mastering reading skill will give such a good impact to other areas of learning, especially those related to reading. It enables people to gain knowledge and information.

In general, reading is the act of looking at a text and gaining meaning from symbols in the text. As stated by Aebersold and Field (1997: 15), reading is what happens when people look at a text and assign meaning to the written symbols in

that text. The text and the reader are the two physical entities necessary for the reading process to begin.

Meanwhile, Finnochiaro and Bonomo in Arsai (2009: 97) state that reading is bringing meaning to and getting meaning from printed or written materials. In addition, Wallace (1996: 4), in his book entitled "*Reading*" adds that reading is interpreting which means reacting to a written text as a piece of communication. It means that when someone sees written symbols in a text, there will be something visualized on the reader's mind. As the symbols encrypted into understandable or acceptable information, the brain processes the information to be responded.

Furthermore, reading as a kind of communication involving the reader and the text's writer into a relational process. Nuttal (1996: 4) claims that reading is a process of communication between the writer and the reader. Here, what the writer encodes might be an idea, a fact, a feeling, or an argument while the reader decodes the message from the text. So, in reading there is not only passive process but also active communication process because reading is a result of interaction between the perception of graphic symbols that represent language and the readers' language skills and knowledge of the world.

Based on the definitions above, it can be concluded that reading is a process of communication between the writer and the reader in which text is used as the media. The writer encodes the message from his mind which might be an idea, a fact, a feeling or an argument while the reader decodes the message from the text. This is where the communication between the writer and the reader happens,

although the meaning the reader gets from the text may not be exactly the same as the meaning the writer of the text wished to convey. Likewise, the meaning that one reader gets from a text may be different from that of other readers reading the same text.

Students often encounter many problems in reading class. Some problems the readers may encounter in reading process are the difficulties in finding topic sentence, interpreting the information given implicitly in the text, inferring the implicit main idea and topic. The problems can be caused by many factors, whether internal or external. Internal factors occur from the students, for example motivation, anxiety, and creativity. External factors occur from outside the students, it can be from the circumstance, the teacher, the parent, etc. The method used by the teacher is an important external factor in reaching the goal of teaching and learning activity. However, Heilman (1961: 9) argues that there is no one best method of teaching. This shows that one method is not necessary superior to another.

Learning cell is one kind of collaborative learning methods. The concept of learning cell was developed by Marcel Goldschmid from *Swiss Federal Institute of Technology* in 1971. The learning cell or student dyad is a cooperative form of learning in pairs, in which students alternate asking and answering questions on commonly reading materials (Goldschmid, 1971 in Goldschmid, 1976: 20). Similar to Goldschmid, Azlina (2012: 91) believes that learning cell refers to a collaborative form of learning in which students work in pairs, alternately ask and answer questions on commonly assigned reading materials. She adds that learning

cell is an effective form of learning to gain better students' feedback due to its smaller group size because the team learns best when having a team size of no greater than two.

From the explanation of some experts above, the researcher summarizes that learning cell is a collaborative method in which students individually develop questions about a reading assignment or other learning activity and then work with a partner, alternating asking and answering each other's questions. This form of learning encourages students to formulate and discuss questions rather than merely listen to answer. As the questions are not supplied by the teacher, it reduces the tendency of students to read only in order to find the answers. Thus, the learning cell is highly recommendable to be used by teacher to create an active learning atmosphere.

Another method that can be used to teach reading is direct instructional method. The basic idea of direct instructional method is to get the students to learn as much as academic content as efficiently as possible (Cruickshank, Bainer, and Metcalf, 1999: 223). One of the characteristics of key element in direct instructional method is teacher centrality. It means that teacher exerts direction and control. The teacher decides what is to be learnt and how, and is visibly in charge. In line with Cruickshank, Bainer, and Metcalf, Afrida (2010: 25) states that direct instructional method is highly teacher-directed and is among the most commonly used. This method includes strategies such as lecture, explicit teaching, practice and drill, and demonstrations. She then adds that direct instructional method is effective for providing information or developing step-by-step skills.

This form of learning also works well for introducing other teaching methods, or actively involving students in knowledge construction. Then, it can be concluded that direct instructional method is a highly teacher-central method of teaching in which the teacher has big role to control the students. In this case, the students rely on teachers' direction and guidance.

Based on the identification above, the most important thing in teaching is that a teacher must find the better method. Learning cell and direct instructional method are two of methods that can be used to teach reading. Therefore, the writer is interested to compare the use of learning cell and direct instructional method to teach reading to the students of junior high school in order to find out which method is better applied.

The problems that can be identified in this research are: (1) do the students taught using learning cell have higher achievement in reading skill?; and (2) which method is better applied to get the better achievement?. Meanwhile, the objective of this research can be said as to identify whether there is any significant difference or not in reading skill of the students taught using learning cell and those taught using direct instructional method and to identify which method is more effective to teach reading. In addition, the hypothesis proposed in this research are: (1) there is a significant difference in reading skill of the students taught using learning cell and those taught using direct instructional method; and (2) learning cell is more effective than direct instructional method to teach reading.

## RESEARCH METHOD

The research has been carried out in SMP N 14 Surakarta which is located on Jl. Prof. Wz. Yohanez No. 54 Surakarta. It was conducted from 23 August 2014 till 2 October 2014. The detailed of the research schedule can be seen in table 1.

Table 1. The Schedule of the Research

No.	Activity	August 2014				September 2014				October 2014			
		I	II	III	IV	I	II	III	IV	I	II	III	IV
1.	Conducting try-out												
2.	Conducting pre-test												
3.	Giving treatment												
4.	Conducting post-test												
5.	Analyzing data												

The method used in this research was experimental method. According to Mason and Bramble (1997: 56), experimental studies involve comparing conditions under various setting of the treatment. They explain that the subjects might be divided into two groups, one to undergo a treatment condition, called the experimental group or treatment group, while the other to receive another treatment or control group. In summary, the experimental method is intended to investigate the effect of a treatment (X) for the variable (Y). Therefore, the researcher used an experimental method in order to notice what is going to happen

to the subject of the study after implementing learning cell and direct instructional method as the treatment.

The population of this research was the eighth grade students of SMP N 14 Surakarta in the academic year 2014/2015. From the population, the writer took 2 classes as sample. The samples of this research were VIII A as the experimental class and VIII B as the control class. The two classes were taken randomly out of seven classes by using cluster random sampling in which every class or unit has an equal chance of being selected from the list.

In collecting the data, the researcher used test. The test was used to measure the students' reading skill. Test is a measuring instrument consisting of list of questions that should be answered in order to measure the competence and the result of study of individual or group (Masidjo, 1996: 37-38). The tests administered in this research were categorized as achievement tests, since in this research, the researcher measured the students' reading skill. The tests were needed very much in obtaining the score in order to know the effect of learning cell and direct instructional method as the treatment to teach reading skill. The score was obtained through post-test.

As the purpose of the study was to compare two methods, the research used *t-test* formula to compare the two groups because one group used learning cell and the other used direct instructional method.



## RESEARCH FINDINGS

This research was conducted at the eighth grade students of SMP Negeri 14 Surakarta in the academic year of 2014/2015. The experimental group, class VIII A, was taught using learning cell and the control group, class VIII B, was taught using direct instructional method.

The data which were analyzed in this research are the result of the test. After giving treatments to both groups, the researcher gave a post-test to the students. Post-test is conducted with the same material for both classes; experimental and control group. The score of the post-test were compared using t-test formula to prove whether there is significant difference between the score of the two groups and to find which method is more effective to teach reading.

In analyzing the data, the t-test formula is applied. In applying the t-test formula, the researcher tested the null hypothesis ( $H_0$ ) of this research that there is no significant difference in reading skill between students taught using learning cell and those taught using direct instructional method. Statistically, the hypothesis can be formulated as  $H_0: \mu_1 = \mu_2$ .

The alternative hypothesis ( $H_a$ ) of this research is that there is a significant difference in reading skill between the students taught using learning cell and those taught using direct instructional method. Statistically, the hypothesis can be formulated as  $H_a = \mu_1 \neq \mu_2$ . If  $t_o$  (t observation) is smaller than  $t_t$  (t table) or  $t_o < t_t$ ,  $H_0$  is accepted. On the contrary, if  $t_o$  (t observation) is higher than  $t_t$  (t table) or  $t_o > t_t$ ,  $H_0$  is rejected.

The result of t computation shows that t observation ( $t_o$ ) is 2.106 while t table ( $t_t$ ) for the degree of freedom 64 and the level of significance  $\alpha = 0.05$  is 1.998.  $t_o$  is higher than  $t_t$ . It means that  $H_o$  is rejected and the first hypothesis ( $H_a$ ) is accepted. So, it can be concluded that there is a significant difference in reading skill between students taught using learning cell and those taught using direct instructional method.

The second hypothesis of this research is that learning cell is more effective than direct instructional method to teach reading. In order to test the second hypothesis, the researcher needs to compare the post-test mean of the two groups. The mean of the scores of the experimental group is 79.7, while the mean of the scores of control group is 76.52. The mean score of the experimental group is higher than the mean score of the control group. It can be concluded that learning cell is more effective than direct instructional method to teach reading.

## **DISCUSSION**

The result of the research shows that there is a significant difference in the reading skill between the students taught using learning cell method and those taught using direct instructional method ( $\mu_1 \neq \mu_2$ ). In addition, it can be concluded that learning cell method is more effective than direct instructional method to teach reading ( $\bar{X}_1 > \bar{X}_2$ ).

The result of analysis can be clarified by the following reasons. Teaching reading especially to read English text is very important. It is not only giving a text to the students but also building their consciousness of reading skill. However, there are many students that have low motivation in reading class due to the teacher's poor method in presenting and carrying out reading activities. Thus, it is necessary for a teacher to know the appropriate method used in teaching reading. Learning cell and direct instructional method are such examples of method to teach reading.

The main idea of learning cell method is that the students will try to make questions based on the topic and then exchange the questions and answers with their peer. Creating questions about an assignment requires students to think about the content in a way that is different from simply taking notes on it. Thus, the learners will actively participate in the learning activities rather than passively listening to a lecture. Furthermore, the teacher will be easier in observing in which part the students do not catch the point since they will write questions that they understand and know the answer. In addition, the teaching and learning process will be more meaningful because the students are exchanging questions and answers with a peer which can motivate and challenge them to pursue deeper levels of thought.

It is stated by Barkley, Cross, and Major (2005: 140) that in learning cell, students individually develop questions about a reading assignment or other learning activity and then work with a partner, alternating asking and answering each other's questions. The students will actively share ideas and learn to

question, explain, admit confusion and reveal misconception with their peer. The students also experience new learning styles, where he/she needs to teach his/her partner, partly and alternately. These activities increase their understanding since the students are required to think by themselves before the actual/formal lecture is taken place.

The main characteristic of direct instructional method is teacher centrality, meaning that the teacher exerts strong instructional direction and control. The learners seem satisfied with the teaching and learning process because they just become the followers and depend on help in acquiring knowledge or skill. But, actually this is vice versa. The students will be passive and they will find difficulty when it comes to them to do independent test or assignment since they lean on their teacher too much. As a result, the teacher cannot assess what the students' prior knowledge is, so will be unaware of why particular students cannot learn. In addition, direct instruction as an instruction method works for only a small percentage of students, not for a great variety. The students who have other than verbal intelligence, or who come from different cultural world views will fail. As stated by Cruickshank, Bainer, and Metclaf (1999: 225), in direct instructional method class, the students do not have a sense of the overall purpose of the study and retention of how to solve the problem, because the students have not struggled with the problem themselves. Although this weakness can be overcome by having the students do many complex problems on their own, it means it will need extra time.

Considering the junior high school students as those who need to be taught in an active and lower anxiety environment, it will be boring for them to be taught using direct instructional method in which they only follow the teacher's instruction and depend on help without doing something that requires them to actively thinking. Therefore, it will be a new experience for them when they are given a chance to try making questions dealing with the text they read since in the previous lesson they were always the ones who should answer questions. After creating questions, they start asking questions to their partner, listen to the alternative response by his partner and compare to his own answer. Responding to the questions, peers provide a platform for discussion based on students' levels of understanding. They will then find a conclusion about which answer is better or how to get a better solution based on two different answers. Besides, exchanging questions and answers with a peer can motivate students and challenge them to pursue deeper levels of thought. So, learning cell is better to be the choice as the method to teach reading.

The explanation above conforms with the result of this research that there is a significant difference in the achievement of reading skill between the students taught using learning cell method and those taught using direct instructional method and teaching reading using learning cell is more effective than using direct instructional method.

## CONCLUSION AND RECOMMENDATION

In relation to the previous discussion and data analysis in the findings session, the conclusions that can be drawn are that there is a significant difference in the reading skill between the students taught using learning cell method and those taught using direct instructional method and that learning cell is more effective to be applied to teach reading than direct instructional method for junior high school students.

Since the result of this research shows that learning cell is better than direct instructional method to teach reading, it is recommended for teacher to use learning cell method in teaching English especially reading. Then for the students, they should be active in teaching learning process and do more practices in the class. The students have to improve their reading skill with various activities such as thinking critically by using their background knowledge because reading is important for not only their academic success but also their daily life. The last suggestion will be directed to other researchers. The writer is aware that her research is not the end of the problem being studied. The result of the study merely confirms the hypothesis, but it does not prove that something is absolutely true all the time. For further research, the writer hopes that other researchers will make such an improvement by trying to use this topic of research with different subjects of research.

## BIBLIOGRAPHY

- Aebbersold, Jo Ann and Field, Mary Lee. 1997. *From Reader to Reading Teacher : Issues and Strategies for Second Language Classrooms*. New York : Cambridge University Press.
- Afrida, Nina. 2010. *The Effectiveness of Reciprocal Teaching Model to Teach Reading Viewed from Students' Intelligence*. Surakarta. Unpublished Thesis.
- Arsai, Alfons N. 2009. Developing Engineering Students' English Proficiency on Reading Skill Through Prediction Technique. *Jurnal Pendidikan Bahasa dan Seni*, Volume 5, 2 : pp. 97-108.
- Azlina, Nik. 2012. Assessing the Effectiveness of K-Cell Application to Promote Active Learning to Learn Theoretical Subject. *International Conference on Software and Computer Application*. IPCSIT Vol 42 . pp : 90-95.
- Barkley, Elizabeth F., Cross, K. Patricia, and Major, Claire Howell. 2005. *Collaborative Learning Techniques : A Handbook for College Faculty*. San Francisco : Jossey-Bass.
- Cruikshank, Donald R., Bainer, Deborah L., and Metcalf, Kim K. 1999. *The Act of Teaching 2<sup>nd</sup> Edition*. New York : McGraw-Hill College
- Goldschmid, Barbara and Goldschmid, Marcel L. 1976. Peer Teaching in Higher Education : A Review. *Higher Education* Vol. 5, 1. pp : 9-33.
- Guntur, Estes, and Schwab. 2003. *Introduction a Model Approach, 4<sup>th</sup> Edition*. [http://www.lifeisastoryproblem.org/lesson//mdl\\_dir\\_instr.html](http://www.lifeisastoryproblem.org/lesson//mdl_dir_instr.html) Accessed on May 2<sup>nd</sup>, 2014.
- Heilman, Arthur W. 1961. *Principles and Practices of Teaching Reading*. Columbus : Charles E. Merrill Books Inc
- Masidjo, Ign. 1995. *Penilaian Hasil Belajar Siswa di Sekolah*. Yogyakarta.
- Mason, Emanuel J. and Bramble, William J. 1997. *Research in Education and the Behavioral Sciences : Concepts and Methods*. Madison : Times Mirror Higher Education Group Inc.
- Nunan, David. 2003. *Practical English Language Teaching*. Boston : McGraw-Hill.
- Nuttall, Christine. 1996. *Teaching Reading Skills in a Foreign Language*. New York : Cambridge University Press.
- Wallace, Catherine. 1992. *Reading*. Oxford : Oxford University Press.