THE EFFECT OF MISCUE ANALYSIS AND INTERACTIVE COMPENSATORY MODEL ON IMPROVING STUDENTS INFERENTIAL READING COMPREHENSION

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Abstract*: The objectives of this study were to investigate whether (1) Achievement in Inferential Reading Comprehension which was taught by Miscue Analysis is higher than Interactive Compensatory Model (2) Achievement in Inferential Reading Comprehension with positive attitude is higher than students' with negative attitudes and (3) Interaction between Models of reading and students' attitudes on the students' Achievement in Inferential reading comprehension. The result of testing the first hypothesis showed that* $F_{observed}$ *is greater than* F_{table} *(7.858 > 3.98). It was found that Miscue Analysis is the most effective method. It could be seen from the highest one among the methods and strenghten by using Neuman Keuls formula. In conclusion, the Miscue Analysis and Interactive Compensatory Model significantly affected students' inferential reading comprehension. Based on the questionnaires data, after converting the students' questionnaires result into numerical data using Lykert-type scale, it was found that students' had positive attitude toward reading in the "positive highly" category, in the value of 131 between 100-150. This analysis followed by comparing the results of questionnaires with students' post-test results manually by using Pearson formula and by MINITAB analysis. It was found that there was positive correlation between students' attitude and students' inferential comprehension achievement. In other words, students' attitude had strong relationship with students' reading inferential comprehension achievement. It could be said that the more positive the students attitude, the better their inferential reading comprehension will be.*

Key Words*: Miscue Analysis, Interactive Compensatory Model, Inferential Reading Comprehension*

Abstrak: *Tujuan dari penelitian ini adalah untuk menyelidiki apakah(1)kemampuan siswa dalam menyimpulkan bacaan yang diajarkan dengan metode miscue analysis lebih tinggi daripada siswa yang diajarkan dengan model membaca interaktif, (2)kemampuan siswa dalam menyimpulkan bacaan dengan mina tbaca yang tinggi lebih baik daripada siswa yang memiliki minat baca yang rendah (3)Iinteraksi antara model membaca dengan sikap siswa akan berdampak baik atau buruk terhadap kemampuan siswa dalam menyimpulkan bacaan. Penelitian quantiative dilakukan dengan menggabungkan pendekatan eksperimental dan deskriptif. 90 siswa di semester empat tahun ajaran 2008/2009 dipilih sebagai sampel dengan cara acak. Mereka dibagi menjadi 3 kelompok, 2 kelompok sebagai kelompok eksperimen dan 1 kelompok sebagai kelompok kontrol. Pre-test diberikan untuk semua kelompok, kelompok eksperimen pertama diberikan pengajaran menggunakan Miscue Analisis, dan kelompok eksperimen kedua menggunakan model*

membaca interaktif. Kelompok kontrol menggunakan metode pengajaran tradisional (konvensional). Setelah 12 pertemuan, pos-test dilakukan untuk semua kelompok untuk mengevaluasi kemampuan siswa. Kuesioner dan wawancara dilakukan untuk mengidentifikasi sikap siswa terhadap kemampuan menyimpulkan bacaan. Data dianalisis dengan menggunakan ANOVA dua arah untuk penelitian eksperimental. Hasil pengujian hipotesis pertama menunjukkan bahwa Fobserved lebih besar dari Ftabel (7,858> 3,98).Hal ini menunjukkan bahwa Miscue Analisis adalah metode yang paling efektif dalam meningkatkan kemampuan siswa dalam menyimpulkan bacaan. Miscue Analisis dan model membaca Interaktif juga secara signifikan mempengaruhi kemampuan membaca siswa. Berdasarkan data kuesioner, ditemukan bahwa siswa yang memiliki minat baca yang tinggi ada dalam kategori "sangat positif" dengan nilai 131 antara 100-150. Ini berarti bahwa ada korelasi positif antara sikapsiswa dengan kemampuan siswa dalam menyimpulkan bacaan.

***Kata Kunci**: Miscue Analisis, Model membaca interaktif, Kemampuan Menyimpulkan Bacaan*

Introduction

Reading is one of the basic communicative skills which considered as a very complex process. It is not only the process of eye movement on printed materials, but also the process of understanding the text to obtain the information. Consequently, it is difficult to obtain precise information about the events that take place in mind when people comprehend a reading text. It is a process of making sense on written ideas through meaningful interpretation and interaction with a technique of language.

The ability to read well requires an application of a special knowledge to be the most stable and durable of the second language (Bernhardt: 1991). Learners may use their productive skills, yet still be able to comprehend texts with some degrees of proficiency. Reading, whether in the first or second language context, involves the reader, the text, and the interaction between the reader and the text.

In most cases, students can read the text without understand the meaning, especially the implicit ones. For such kind of text, the inferential skill is needed. Another problem that may cause failure in reading comprehension is because students fail to detect what problems they have, apart from vocabulary mastery. A part from this internal problem, students sometimes struggle in building their reading comprehension because of some external factors, such as their home environment, parents and family support, and their own attitude toward reading.

Based on the teachers' experience in teaching and learning practice, it was found that many students could read the words in a passage perfectly but was unable to answer questions that call for making inference or identifying the main idea of the text in second language (L2). This fact showed that students have failed to master inferential comprehension. Inferential comprehension is a type of communication in which a reader has to infer or communicate in which a reader implied meaning from a reading material.

In spite of the internal comprehension which seems to be more difficult for the students, the teachers have to search for some kind of effective methods that will help them

in solving the difficulties. For such reasons, Miscue Analysis and Interactive Compensatory Model of the Goodman's and Stanovich's Reading Process, can be selected as the alternatives which was proposed in this study.

Due to the problems of reading, it can be said that reading was a vital skill to be mastered by the students or other users of English. However, to be effective readers it might need many strategies and methods. Thus, it is not an easy task, there are factors affecting one's success, such asthe complexities of the process that might lead the reader to be an effective reader or to be a failure one. It might also come from students' internal and external motivation, such as learning environment, home situation, teachers' performances and also the methods itself.

Due to the assumption that students have positive attitude toward learning the inferential comprehension through the methods, the writer continued the investigation by applying *a descriptive research* as the secondary study to support the primary one, that is the experimental. It is done in this way in order to improve the quality of the study, because as stated by Johnson & Christensen in Tsolidis (2004: 43) by combining two (or more) research methods with different strength and weakness in a research study, can make it less likely that you will make a mistake. In other words, if one combined two different studieswith each of their weaknesses and strength, they could help to cover each to avoid overlapping or poorness of the study.

The reason to combine this study is based on the intention of describing a wider understanding toward the topic. In doing so, on one hand, the teachers are easy to help students in increasing their inferential reading comprehension, and on the other hand, by conducting another investigation about students' attitude, it is hope that teachers and students, and also parents were awared of some factors that could improve and decrease the students' interest in reading and easier to identify what problems might be a challenge to the students in increasing their reading inferential comprehension.

The problems of the studycan be stated as follow:1)Do Miscue Analysis and Interactive Compensatory Model significantly affect the students' mastery in inferential reading comprehension? 2) To what extent do students' attitudes influence the students' inferential reading comprehension? 3) Which of the two models was the most effective?

In carrying out thisstudy, and in line with the problems of the study, the objectives of this study are:1)to find out whether or not Miscue Analysis and Interactive Compensatory Model significantly affect the students' inferential comprehension mastery. 2) to find out the extent of the students' attitudes give influence to the students inferential comprehension mastery. 3)to find out the most effective models in reading comprehension for the college students.

This studywas limited only to the use of Miscue Analysis and Interactive Compensatory model in mastery the second taxonomic level of comprehension, namely inferential comprehension. There are four taxonomic levels of Comprehension, based on Barret (1974) as quoted by Heilman et al. (1981:242) namely: literal comprehension, inferential comprehension, evaluation, and appreciation.

After completing this study, the significance which could be obtained by the teachers and the students are:1) As provide alternative ways in solving students and

teachers' problems in learning and teaching reading comprehension, especially inferential comprehension skill.2) As valuable inputs in teaching and learning English as processes. 3) As contribution for another teachers because both models could be assured to be promoted in the process of mastering inferential comprehension.4) As information contribution for the texts that researchers give to an individual leaner and for one who was interested in learning how to teach inferential reading comprehension by using alternative models.

Thisstudy findings were expected to be useful for the theoretical and practical development, especially in the focus on improving the students' learning achievement as an important qualification which was demanded to fill up the job vacancies in the work fields of English teachers to improve students' reading comprehension by these alternative ways and also for further researchers who were interested in language use and teaching - learning research.

This study was also expected to provide information, which might have theoretical as well as practical values for English language teachers. Theoretically, the result of this study would be added in the area of English teaching as a foreign language. Meanwhile, practically, it would give valuable information about English language teaching strategies to make the decision whichthe best method and approach in developing the students' inferential reading comprehension.

Miscue Analysis

Miscue Analysis (MA) was originally developed by Ken Goodman for the purpose of understanding the reading process. It was a diagnostic tool that helps teachers gaining insight into the reading process. The term miscue was initiated by Ken Goodman to describe an observed response in the reading process that does not match to the expected response. Goodman uses the term "miscue", rather than "error" or "mistake" to avoid value implications.

Miscue Analysis (MA) procedures included the collection and examination of a single and complete oral reading experience followed by a retelling. The procedures and standards are outlined in both the Goodman Taxonomy and the Reading Miscue Inventory (Goodman, Watson, & Burke, 2005).

MiscueAnalysis (MA) focuses specifically on "cueing systems" used by the reader. The three cueing systems used in miscue analysis were the same as those used to describe work done by readers in running records. The cueing systems were labeled slightly differently, as the graph phonic system (visual cues in running records), the syntactic system (syntax or structure cues in running records), and the semantic system (meaning cues in running records).

Miscue Analysis (MA) refers to a process of diagnosing a student's reading. It was based on the premise of analyzing the errors thar a student made during oral reading. When a student read orally, the teacher learned a great deal about whether the student was making sense of what was being read by looking closely at the types of errors the student made. By using the miscue analysis models, a teacher would be much more capable of assisting those students who experience difficulty.

Interactive Compensatory Model

Stanovich's 'Interactive-Compensatory Model' of the reading process was more widely accepted among reading researchers than Goodman's model. Stanovich pointed out that reading involved a number of interactions with the text. One of the most important of these was the reader's allocation of 'processing capacity' to the text. Fluent readers need less processing capacity for word recognition, freeing more capacity for comprehension. If there are problems with word recognition, more resources were allocated to that part of the reading process, at the expense of some capacity for comprehension.

Rumelhart (2000: 98) stated that Interactive Model was linear models which passed information only in one direction and which did not permit the information contained in a higher stage to influence the processing of a lower stage which contained a serious deficiency.

Since, the need for an interactive model which permited the information contained in a higher stage of processing to influence the analysis that occured at a lower stage, when an error in word recognition was made, the word substitution would maintain the same part of speech as the word for which it was substituted, which would make it difficult for the readers to understand (orthographic knowledge), semantic knowledge influences word perception. (Semantic knowledge), perception of syntax for a given word depends upon the context in which the word is embedded (syntactic knowledge), our interpretation of what we read depended upon the context in which a text segment was embedded (lexical knowledge).

Stanovich (1999: 186) stated:Interactive Compensatory Model wastop-down processing might be easier for the poor reader who might be slow at word recognition but had knowledge of the text topic.Bottom-up processing mightbe easier for the reader who was skilled at word recognition but did not know much about the text topic.

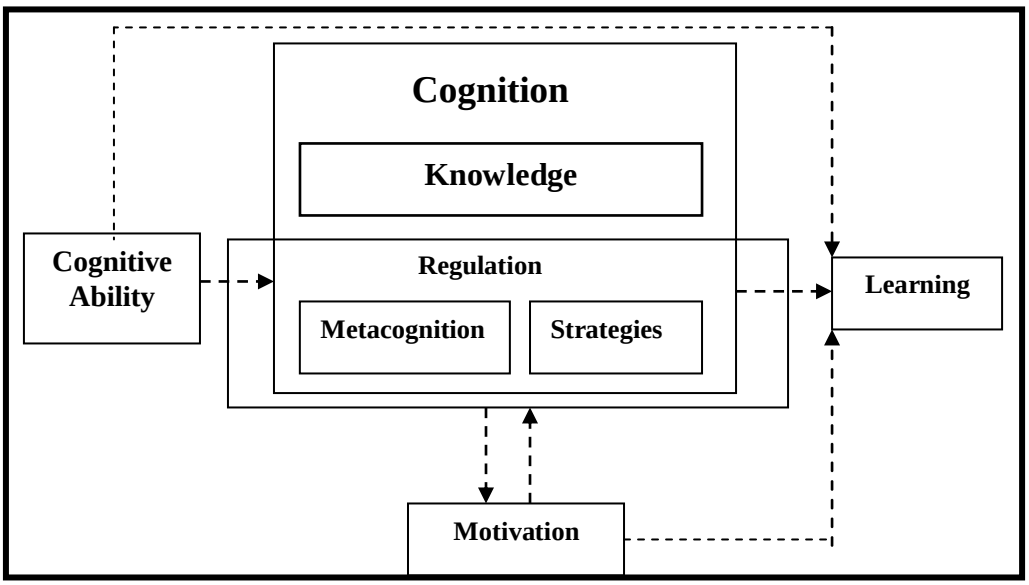
Stanovich's model stated that any stages might communicate with any other and any reader may rely on better developed knowledge sources when other sources are temporarily weak. To properly achieve fluency and accuracy, developing readers must work at perfecting both their bottom-up recognition skills and their top-down interpretation strategies. Good reading (that is fluent and accurate reading) can result only from a constant interaction between these processes.

The Interactive-compensatory model suggested that poor readers use contextual information to compensate for weak word recognition skills. The model had two major components: Contextual facilitation of word perception and Facilitation of comprehension. Contextual facilitation of word perception was not a usual part of skill normal reading; in fact it would be a waste of cognitive capacity for good readers who read with easy and in an automatic fashion to even consider using this strategy. Contextual facilitation or facilitation of word perception was useful only to poor readers to compensate for their difficulties in decoding. Good readers perceived words using Data Driven strategies, saving cognitive capacity for comprehension monitoring.

The purpose of the interactive compensatory model of learning is to provide a framework for understanding and improving classroom learning. Though speculative, the model was consistent with a wide variety of empirical data. Figure1 showed a schematic

diagram of the ICML. The model includes five main components: cognitive abilities, knowledge, strategies, metacognition and motivation.

Figure: 1



Interactive Compensatory Model of Learning (ICML)

The model postulated that cognitive ability as related to learning both directly and indirectly via knowledge and regulation. Strategies and metacognition typically co-develop and were quite strongly related. Knowledge and regulation were related to motivation. Cognitive ability was not related to motivation. Knowledge, regulation and motivation were related directly to learning. In a later section of this paper, we provided a more explicit rationale for the proposed structural relationships among components.

Methodology

This study covers a combination of two quantitative study. First, **Experimental study**and second, **Descriptive Study**, Gay (1986:541-553) stated that experimental studywas a study in which at least one independent variable is manipulated, other relevant variables were controlled. Wellington (2000: 31-32) stated that the purpose of the experimental study is to determine cause and effect relationship. It enabled us to identify causal relationship because it allowed us to observeunder controlled conditions and the effects systematically changing one or more variables. Gay (1986: 198) also stated:A descriptivestudy involved collecting data in order to test hypotheses or to answer question concerning the current status of the subject of the study. In addition that ddescriptive data were usually collected through a questionnaire, surveys, interviews or observation.

The combination between experimental and descriptive research was expected at the findings where the researcher could find a wider and deeper understanding about the topic. The combination of the researchwas aimed at covering each other weaknesses and strength. In other words, both of them would ssupport each other to increase the quality of the research.

Regarding this study, the correlation study was applied in order to explore rather than theory testing. In this topic, the correlation exploration was aimed at investigating the relationship between student's achievement as the result of student's improvement in learning through the new methods, and the students' attitude as another variable.

For the experimental research, the *Simple Factorial Design* would be used. The design was generally regarded as the most sophisticated research method for testing hypotheses and over viewing the process of the methods. These designs were assigned to the experimental and control groups by random methods and were given a pretest on the dependent variable.

The treatment was introduced only to the experimental subjects for a specific time, after which the groups were measured on the dependent variable. The average differences between the pretest and post-test had been found for each group and then these average difference scores were compared in order to ascertain whether or not the experimental treatment produced a greater change than the control situation.

This design began with a question concerning the relationship between two or more variables. At the same time the writerwas advancing one or more hypotheses stating the nature of the expected relationship. The experiment was the event planned and carried out by the writer to gather evidences relevant to the hypotheses. Alexander&Carr &Schwanenflugel (1995: 225 – 226) stated: In its simplest form, an experimental had three characteristic: (1) an independent variable is manipulated; (2) all other variables except the independent variable held constant variable is observed … The independent variable is manipulated or changed by the experimenter. The variable upon which the effects of the changes are observed is called the dependent variables, which is observed but not manipulated by the experimenter.

The experimental research data were collected from an experiment and a set of questioner and interviews were applied to the some of the students in experimental groups in order to collect the data of the Descriptive research. The experimental group 1 was the group who received treatment by using *miscue analysis* and Experimental group 2 was the group who received treatment by using *interactive compensatorymodel*. The treatments were applied for about 12 meetings. The control group was not received any treatment. This group was taught as usual by their English teacher. Further, the questionnaire and interview have been conducted for some of the experimental groups. This step was done in order to find whether or not the students' achievement affected by other factors apart from the new methods.

In other explanationstated that if this study interested in the effect of the independent variables, which might affect the dependent variables, such as attribute variable, than it should be investigated as same as another variables. It could be illustrated as in Table 1.

Table 1: Simple Factorial Design

Attribute Variable (attitude)	**Experimental variable**	
	Miscue Analysis	**Interactive Compensatory Model**

Population and Sample

This study was conducted in STMIK POTENSI UTAMA Medan, located at JalanK.L.YosSudarso Km 8.5 Medan. The students who participated as the population of this study were the students in the fourth semester of 2008/2009 Academic year. The population of this study had been taken of 3 (three) classes. Each class consists of 30 students so the total sample of the students that used in this research was 90 students that were selected by using random sampling techniques. It meant that random sampling techniques was represented the sample of the population that had been used in both, control and experimental groups.

The chosen students were divided into three groups. The first group consists of 30 students as experimental group one was taught by Miscue Analysis, the second group of 30 students as experimental group two was taught by Interactive Compensatory Model, the third group whichconsisted of 30 students as control group applied both models andwas taught by using conventional way.

Instruments of Data Collection

An instrument is very useful in each study because through the instrument we will know the result of the research. In this study the instrument used was inferential reading comprehension objective test thatused to measure the mastery and proficiency of individuals in different area of knowledge for the Experimental research. For the Descriptiveone, the questionnaires whichcombined with the in-depth interview assessment was conducted to measure students' attitude toward reading comprehension and learning by using both models.

Interviews and questionnaire were relatively open and closed. Therefore, they were most useful with adult learners who have acquired more than beginning level of proficiency in the second language. For this reasons, the questionnaire or interview was designed in the students' native language. In addition, they required considerable planning and preparation time. In the same words, questionnaires is used only with respondents who were literal, and they could administered simultaneously to many respondents and require only one person for administration. Interviews did not require reading and writing skills

and, therefore, could be used with a wide range of respondents, but they need a considerable personnel time because each respondent must be interview individually.

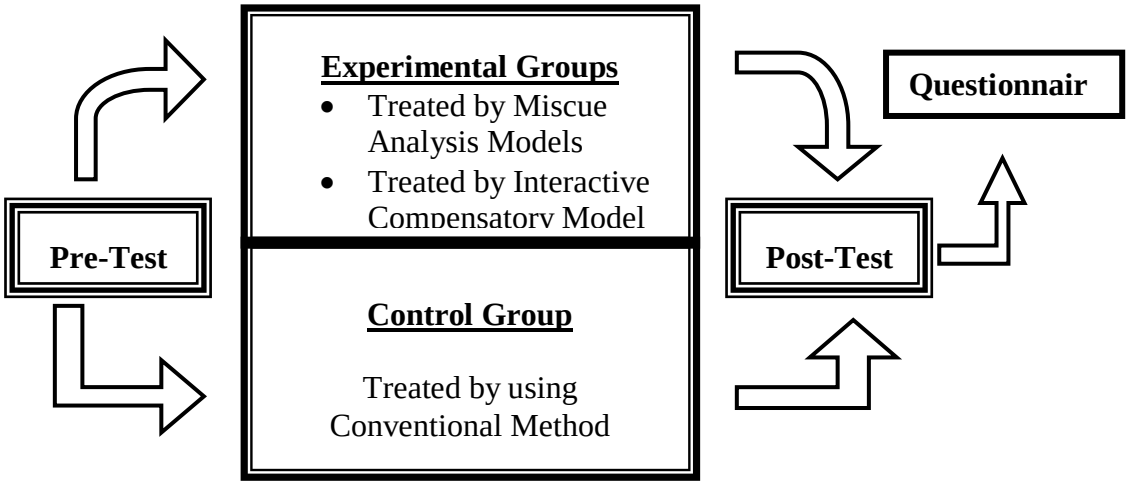
Richards (1985:129) states:Questionnaire and interviews could be used after instruction to gather information about the effectiveness of a unit or an entire course – information such as students' general impressions of the course or unit and its various components (content, organization, materials or equipment, and activities), and their satisfaction with their achievement in the language as a result of the course or unit.

Teacher questionnaires and interviews could also provide valuable information for assessing the effectiveness of instruction. Evaluative information collected at the end of a course was used to revise instructional plants for subsequent groups of students; it was used to modify instruction for current students. As a conclusion, using questionnaire to collect assessment information at the end of instruction (*treatment of research*) was particularly beneficial because they were efficient and provide permanent, systematic records of feedback from all students. Feedback from questionnaires had the additional advantage that it was easily quantified if structured-multiple-choice questionnaires were used.

Procedures of Data Collection

In collecting the data, the researcher conducts two tests for those groups. They were pre-test and post-test. Later, the writer conducted an attitude assessment by using questionnaire techniques for the experimental group constituents which showed in figure 2 below:

Figure : 2



The Procedure of Data Collection

Pre-test

The Pre-test was conducted to find out the homogeneity of the sample and the result available which used to arrange the groups as supposed. The function of the Pre-test was to find the mean score of group A, B, C and D. In this case, the researcher assumed that the whole student's ability were still the same, because they were in the same level, so it was hoped that their ability were still in the same level. The pre-test consists of purely Inferential Reading Comprehension items, the test was a mastery test, which is consisted of 45 items, and the tests were the objective test, and the test was conducted in 90 minutes.

Treatment

The experimental group and the control group were given Inferential Reading Comprehension materials but in different ways. The first experimental group was taught by using Miscue Analysis, while the second experimental group was taught by using Interactive Compensatory Models, and the control groups was taught by using the traditional method (conventionalway).In this research, the researcher asked some assistants from two other English teachers who treated the first experimental group 1 by using Miscue Analysis and the first assistant treated experimental group 2 by using Interactive Compensatory Models and the second assistant taught the control group by using conventional way.

Post-test

Having given the treatment, the writer conducted a post-test. This post-test was the final test in this study, especially in measuring the treatment, whether the treatment was significantly affected or not.

Test Items

The instruments used in this research were the English Reading Comprehension Test for Experimental research and questionnaires and interviews for Descriptive study.

The instrument used to collect the data was objective test or multiple choice questions (MCQ). The test consisted of twenty (45) items and each item had one score. Students were asked to answer the questions through choosing the best choice.

Table 2: Quantitative test Items Distribution

Part	I	II	III	IV	V	VI	VII	VIII	IX
Items	5	5	5	5	5	5	5	5	5
Methods	MCQ	MCQ	MCQ	MCQ	MCQ	MCQ	MCQ	MCQ	MCQ

Table2 shows that there were nine parts of the test in the test sheets. Each part consists of information that students collected to answer the question items depending on the passage. Therefore, the contribution of the test items already arranged for each part of the passages. The method used in the test was Multiple Choice Questions (MCQ).

Table 3: Attitude Questionnaire Items Distribution

Part	Questionnaire	Interview
Items	20	5
Method	CQM	OQM

From Table 3it could be seen that the questionnaires consisted of 20 questions to conduct the post-test for the experimental groups. The method which was used to conduct the test was closed question method (CQM) and 5 other questions were raised in the in-depth interviews as open-ended questions.To collect the data for the descriptive research was used the opened question method (OQM). These interview questions were conducted

to strengthen students' answers from the questionnaires. These kinds of questions were designed to find out what extend students give positive attitude toward learning through the two models.

Validity and Reliability of the Test

Validity

Validity was a quality of data-gathering instrument or procedure that enables it to determine. Every test, whether it was a short informal classroom test or public examination, should be as valid as the teacher can make it. In other words, a testmust be capable of measuring what intends to measure. Sequera (1995: 49) stated that validity was an important factor in designing a good comprehension test.

Wellington (2002: 9) stated: Validity could be seen as a measurement of a confidence in credibility of plausibility of a piece of research (test). Furthermore, he stated that a testshould test what the writer wants to test and can be explicit about what is to be tested and takes steps to ensure that the test reflects realistic use of the particular ability to be measured.

Brown&Pressley& Van Meter &Schuder, (1996:197) also stated:Various aspects of validity have been delineated. The best-known classification of the types of validity had been set forth by …distinguished three types of validity; content validity, criterion-related validity and construct validity. These types of validity cover the basic purposes for which tests were used.

With those arguments above it was concluded that validity of a test was very crucial. Itshould show explicitly the relation between the test and the content. A test designer should realize that what to be tested relevant with the content to be tested.

For evaluating the test in this research, content validity was applied as one type of criteria apart from reliability (Hughes, 1989 & Weir, 1993; Bachman & Palmer, 1996). The content validity was chosen because it refers to the extent to which the instrument represented content of interest. In this case, the curriculum was considered as the starting point of making a test. All of the tests hd represented the content of the curriculum.

Reliability

Reliability of test had to do with the stability of the score for the same individuals at different times. Furthermore, Heaton (1982:27) statedthat reliability was a necessary characteristic of any odd test. To be valid, a test must first reliable as a measuring instrument. Therefore, based on the quotation above, if the scores of the student did not fluctuate too much, the test was reliable.

Wellington (2000:8)stated:Reliability commonly used to describe a test or examinationto estimate the degree of confidence in the data. Reliability refers to the extent to which a test or technique functions consistently and accurately by yielding the same results at different times or when used by different researcher.

The reliability of the characteristics of a good test refers to the consistency of the measurement. To obtain the reliability of the test, the writer used Kuder Richardson's 21 formulas, as presented below:

$$\mathbf{KR_{21}} = \frac{k}{k-1}\left[1-\frac{M(k-M)}{k(s)^2}\right]$$

Notes:

KR_{21} =Coefficient reliability

k = the number of item in the test

M = the mean of the test score

s = the standard deviation of the test score

The value of reliability is as the following:

0,00 – 0,40 : the reliability is low

0,40 – 0,70 : the reliability is significant

0,71 – 0,90 : the reliability is good

0,90 – 1,00 : the reliability is very good

Concerning with the consistency of time and test distribution, it was argued that the time was consistently matched with the best items distribution. Firstly, the 45 items for quantitative questions was provided for 90 minutes with Multiple Choices Questions. Secondly, the questionnaires and interview had been done in another day. Therefore, the reliability of the test items and time is acknowledgeable.

Techniques of Analyzing Data

Analyzing Experimental Research Data

After getting the data (pre-test and post-test), the researcher is intended to analyze them by using '**One way ANOVA'** (*Analysis of Variance)*. It was meant to prove whether the two models, namely Miscue Analysis and Interactive Compensatory Model were effective and to find out which of the models (Miscue Analysis, Interactive Compensatory Model and Conventional Method) are more effective to the students' inferential reading comprehension.

Analyzing Descriptive Research Data

The students' responses formats for the questionnaire results had been converted into numerical data by using Lykert-type Scale to associate the score as shown in Table 4 and then it was entered into a computerize analysis (SPSS).

Table 4: Lykert-Type Scale (5 points responses formats)

Lykert-Type Scale (5 points responses formats)		
TidakPernah	**Never**	**1**
Jarang	**Rarely**	**2**
Kadang-kadang	**Sometime**	**3**

Sering	**Often**	**4**
Selalu	**Very often**	**5**

The range values from 1 to 5, which were substitution of the value of the scoring scale. The values of scores were then categorized into three different categories.

- The score ranged between 10-50 was categorized into *"the lowest attitude toward inferential comprehension"*
- The score ranged between 60-100 was categorized into *"the average attitude toward the inferential comprehension"*
- The score ranged between 100-150 was categorized into *"the highest attitude toward the inferential comprehension"*

In addition, the Correlation Coefficient analyses had been applied to analyze the correlation between students' attitudes and students' inferential comprehension mastery.

FINDINGS

Data Analysis

To evaluate the effect of Miscue Analysis and Interactive Compensatory model on improving the inferential reading comperhension, one of the three groups was regarded as a control group. As this design was classified as Experimental and Descriptive research, two way ANOVA was applied for experimental study to analyze the results of the effect of the teaching methods and to identify the most effective method among them. In applying questionnaire, the correlational analysis was used to analyze the relation between student's attitude and students improvement on reading inferential comprehension.

On the basis of the data collected from the three groups, the conducting of ANOVA was divided into two components. The first was the variance between groups, and second was how the individual score within each group vary around the mean of the groups. The calculation of the measurement of these variances was carried out through the computing of the sum squares between the groups (df_B), and the degrees of freedom within the groups (df_w). The calculation of the mean squares between groups (MSb) and the mean squares within groups (MS_w) were also calculated. Finally, the $F_{observed}$ (F_{obs}) was computed.

The results of the calculation were used to prove whether the three types of teaching methods significantly affect the students inferential reading comprehension. The indication was carried out by means of observing the variance of the mean score of the three models (Miscue Analysis, Interactive Compensatory Model and Conventional method).

The Result of the Students' Scores

The result of the students' scores in inferential reading comprehension through the Miscue Analysis, Interactive Compensatory Model and Conventional methodes were shown in Table 5.

Table 5: Post-Test Scores of Experimental Groups and Control Group

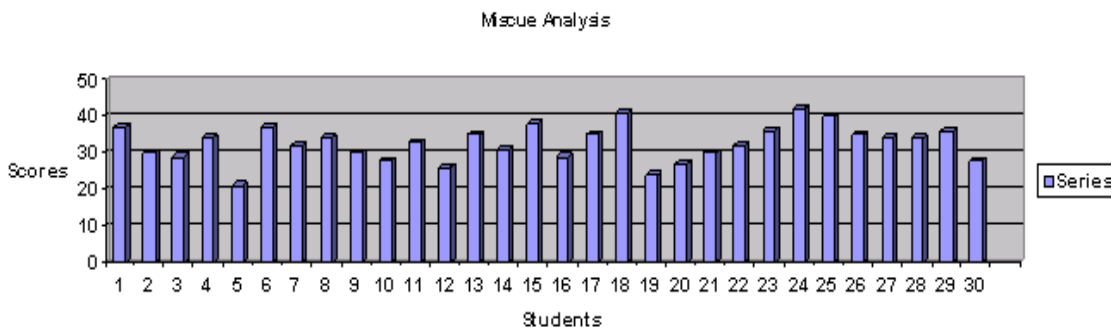
Students	**Miscue Analysis**	**Interactive compensatory Model**	**Conventional Method**
1	37	25	20
2	30	38	29
3	29	40	23
4	34	39	21
5	21	25	39
6	37	28	20
7	32	30	29
8	34	29	28
9	30	34	26
10	28	33	25
11	33	25	21
12	26	32	34
13	35	27	40
14	31	28	26
15	38	35	33
16	29	41	26
17	35	23	32
18	41	39	27
19	24	30	28
20	27	34	30
21	30	28	30
22	32	30	28
23	36	33	22
24	42	27	24
25	40	30	21
26	35	23	28
27	34	26	21
28	34	30	22

Students	**Miscue Analysis**	**Interactive compensatory Model**	**Conventional Method**
29	36	35	37
30	28	32	35
Total Number	978	929	821
Mean	32.6	30.9667	27.3667
Mode	34	30	21:26:28
Median	33.5	30	26.5
Min. Score	21	23	20
Max Score	42	41	40
Total Number^2	956484	863041	674041

Discriptive statistical analysis presented in Table 5 showed that the total number of scores of Miscue Analysis (Experimental group 1 = EGI) is 978, while for the interactive compensatory model (Experimental Group 2 = EG2) is 929, and the Control Group (CG) was821. The mean of the scores were vary. Experimental Group 1 (*EG1)*is 32.6000, Experimental Group 2 (*EG 2)* is 30.9667, and Control Group (*CG)* is 27.3667. The Minimum Score of all groups are 21 for Experimental Group 1 *(EG1)*, 23 for Experimental Group 2 (*EG2)* and 20for Control Group (*CG)*. In contrast, the maximum score of Experimental Group 1 (*EG1)* is 42, Experimental Group 2 (*EG2)* is 41 and Control Group *(CG)* is 40. The last information from the table is the total numberof Experimental Group 1 (EG1) = 956484, Experimental Group 2 (EG2) = 863041, and Control Group (CG) = 674041.

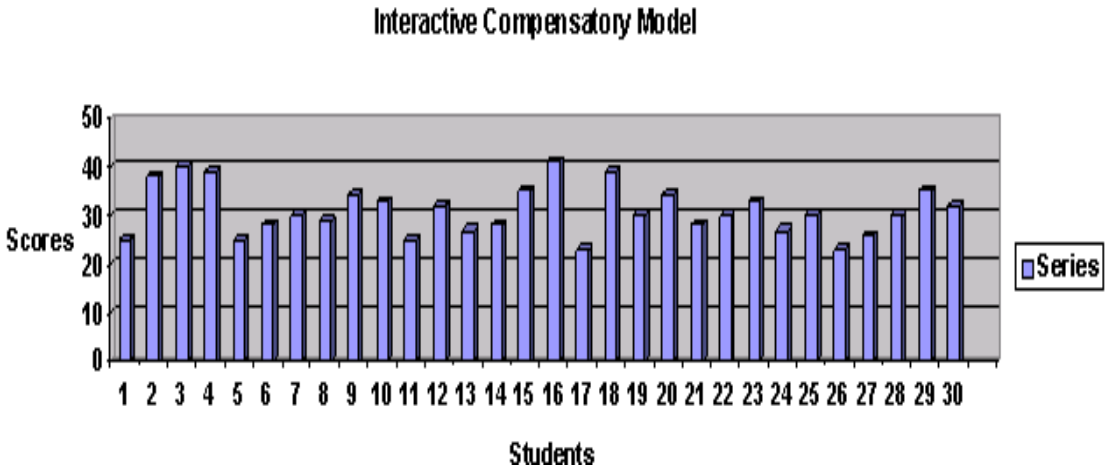
From Figures 3 - 5 it could be seen that the maximum scores of Experimental Group 1 (EG1) was achieved by the student number 24 while the minimum scores was achieved by the student number 5. In Experimental Group 2 (EG2), the student number 16 achieved the maximum score while the student number 17 achieved the minimum score. In Control Group (CG), the student number 14 achieved the maximum score and the student number 6 achieved the minimum score.

Figure: 3



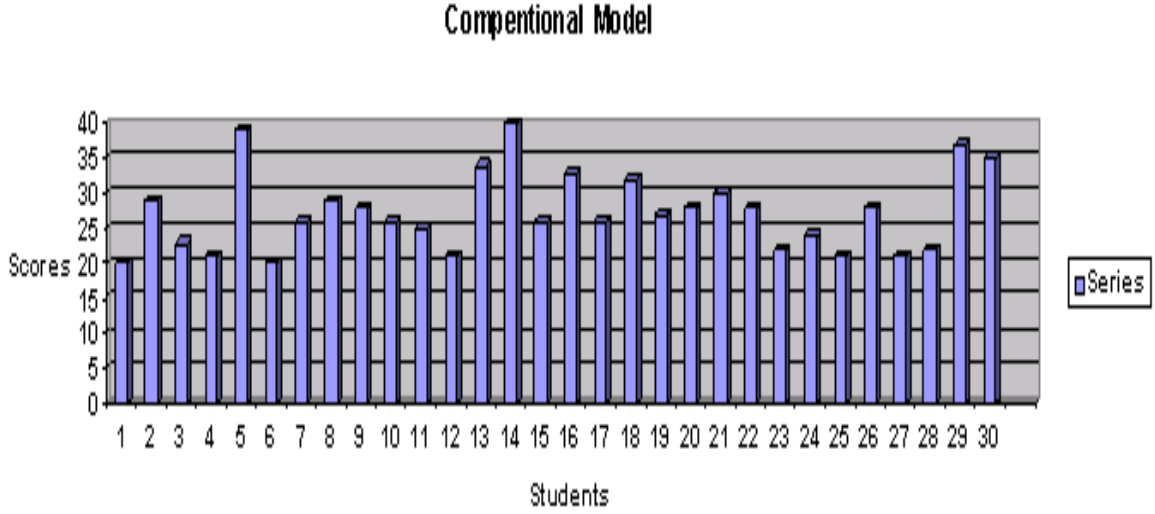
The Scores of EG 1

Figure: 4



The Scores of EG 2

Figure: 5



The Scores of CG

Testing The Hypothesis 1

The testing of the statistical hypotesis of the experimental study was summarized in Table 6, which contained the result of the Analysis of Variance. This table shows the source of variation, the sum of squares, the degrees of freedom, the mean scores, and $F_{observe.}$ All the information in the table wasobtain by using the SPSS and MINITAB data analysis.

Table : 6 Analysis of Variance

Source of Variance	df	SS	MS	F	P
Mean	1	82688.7111	82688.7111	7.8582	0.01
Between Group	2	430.1489	215.0745		3.98
Within Groupss	87	2381.1400	27.3694		
Total	90	---			

The information presented in Table 4.2 above shows that the critical value of the $F_{observed}$ at the 0.01 significance level, with 3 degrees of freedom between (dfB) and 87 degrees of freedom within groups (dfW) is 7.8582, while the F table is 3.98. It means that the hypotesis (Ho) of this study is rejected and the alternative hypotesis (Ha) is accepted. It can be said the methods significantly effect on students' inferential reading comperhension.

Testing the Hypotesis 2

The questionnaire was designed into a set of question that consists of 20 items. These items were distributed into different cattegories to asses students personal attitude, toward reading at home and school, attitude toward learning using Miscue Analysis and Interactive Compensatory Model.

The analyses of students questionnaire and interview could be described in the following explanation.

1. The students attitude toward reading comprehension were influenced by personal attitude, at home and school circumstances, class experiences and the experiences of learning using new methods.
2. Almost all the students in the experimental groups prefer new methods which were treated to them for several reasons, such as teacher's performance in teaching reading comprehension basically in the stress-free condition and it was esier to follow the lesson using new methods.
3. Some of the students felt that reading seem not familiar to their family circumstances, however, their attitude were aroused in the school area or vice versa. Furthermore, it is impressive that the possition of a person around the students who motivated or supported them in reading comprehension gave great influences in their reading comprehension.

4. The students' reading skills also contribute big influences in mastering the inferential comprehension through the new methods. The more skilled the students, the more easier they learn inferential comprehension through Miscue Analysis and Interactive Compensatory Model in the classroom. However, it did not mean that the methods were not suitable for those unskilled students.

Table 7: Questionnaire and Interview Items Distribution

	Personal	**Home and School Circumstances**	**Class Experiences toward inferential Reading Comprehension and new methods**
Questionnaire	1,2,3,4,5	6,7,8,9	10,11,12,13,14,15,16,17,18,19,20
Methods	Closed	Closed	Closed
Interview	1	2,3,5	4
Methods	Open	Open	Open

Table 7 showed that the students questionnaire results found that the most frequenly answer appeared was "*Kadang-kadang"* (Sometimes). It meant that the most frequen value appeared was 3 (three) with the total frequency of the appearance was 131 times. The position of 131 value belongs to the range between 100 to 150, which actually indicated as "the highest attitude toward the inferential comprehension". In other words, students actually had quite high attitude toward reading and learning inferential reading comprehension by using new methods. However, as it is said that the student questionnaire value was 131, it was argued that this result only in the middle position of the value 100 – 150. It was assumed that some of the students still have negative attitude toward reading in general, and reading inferential comprehension specifically. Hence, it is assumed that the negative value might be come from their external motivation such as what have been concluded from their answer that they were not familiar with reading habits at home or at school, and they read because there was someone else asking them to, or they just read because they like to read at that time (mood based).

Furthermore, when it was found out whether or not the students attitude have positive correlation with students achievement (by using questionnaire and Post-test result as the variables) so it was found that the ***r*** is 0.24. After finding ***r***value then the writer tested it with conducting a hypothesis test and it resulted at **1.09 > 0.378.** It meant that $P_{observed}$ was greater than P_{table}.

Discussions

From the above analysis, it could be proved that both methods (Miscue Analysis and Interactive Compensabory Model) significantly effect on students' inferential reading comperhension. The following analysis were aimed at portraying the most effective methode that can be investigated by using the NEWMAN-KEULS formula.

The first procedure was to list those means of each group. Then calculate the standard deviation by using the following formula:

$$\mathbf{Syi} = \sqrt{\frac{MMS}{NI}}$$

$$\mathbf{Syi} = \sqrt{\frac{215.0745}{30}}$$

Syi = $\sqrt{7.2692}$
Syi = 2.7

The second procedures was to decide the significance value of the students (α = 0.05) with v = k for MMS and p = 2.3.4...k. is resulted at :

P = 2 3
2.85 3.48

The third procedures was to compare the differentation of each mean (from the biggest to the smallest) with the RST. The differenciation of the biggest mean to the smallest mean with RST for p = (k-1) and so on.

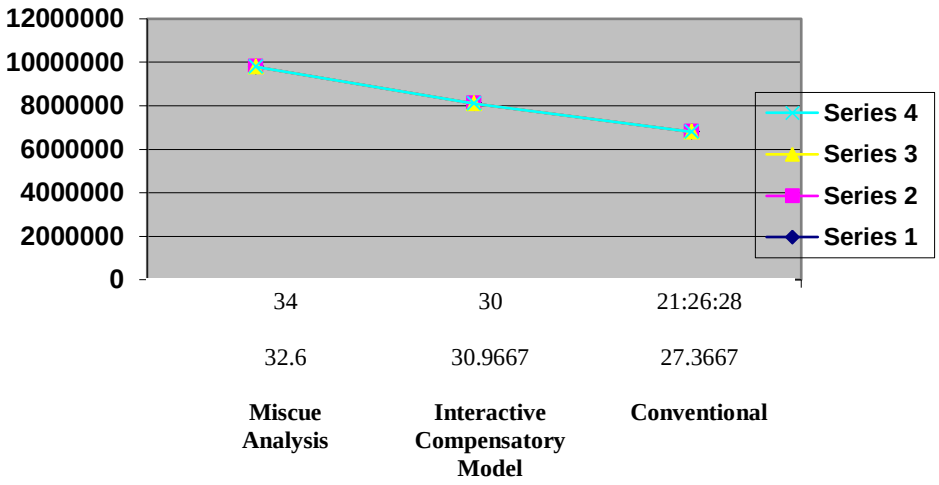
Table 8: Newman Keuls Test

1 againsts 2	***7.70 > 0.63***
2 againsts 3	***9.40 > 0.63***
2 againsts 3	***9.40 > 2.85***

From the NEWMAN-KEULS analysis in Table 8, it could be concluded that the methods signficantly different (**7.07 ; 8.77** and **6.55)**. In other words, it could be said that the first method (Miscue Analysis) was the most effective method which followed by the second method (Interactive Compensatory Model), then the third method (Conventional Method).

Accordingly, the following chart showed that the most effective method among others was Miscue Analysis that can be seen from the line with markers that was shown as the value of each data in Figure 6.

Figure 6 :



The Most Effective Method

Figure 6 showed that the *mean* value of Miscue Analysis was32.6000 with the total number was 956484, while the mean of Interactive Compensatory Model was 30.9667 with the total number was 863041. The conventional mean value was 27.3667 with the total number was 674041. it can be said that the most effective method in teaching inferential reading comprehension was Miscue Analysis.

On the basis of the previous data analysis and in line with the testing of the hypotheses, the study findings consist of two parts. Firstly, the study finding as the answer of the first problem and secondly, the study finding as the answer of the second and the third problems. The findings were :

1. Teaching inferential reading comprehension through the application of Miscue Analysis and Interactive Compensantory Model significantly affected on students' inferential comprehension. As it had been shown in Table 6. The results of variance of the mean scores of the Post-test from the three groups indicated that $F_{observed}$ was greater than F_{table} (7.8582 > 3.98).
2. The most significant effective method was Miscue Analysis, which could be seen from the data in Figure 4.4 that the mean of each group were 32.6000 for Miscue Analysis, 30.9667 for Interactive Compensatory Model, 27.3667 for the Conventional Method and also from the Newman Keuls Analysis.
3. The students' attitude toward reading comprehension could be categorized as "*highly positive attitude toward reading*". From the range of value it was found that the students attitude was reflected from the frequent apeared answer ("sometimes") as 131 times. It was the middle range position between (100 – 150). It was assumed that the students still have negative attitudes toward reading. It could be interpreted as they are not familiar with reading habits at home or at school, and they did not read because of they want to, unless there was someone who asked them to. In addition, by using Pearson Correlation Coefecient formula it was found that the students questionnaire results had positive correlation with students post-test results. It could be said that, there was a strong relationship between students' attitude and students' inferential reading comprehension.

CONCLUSIONS AND SUGGESTIONS

Conclusions

Based on the results of the research findings, it could be concluded that the Miscue Analysis and Interactive Compensatory Model significantly affect students' Inferential comprehension. The application of Miscue Analysis was proven as the most effective model of reading.

The students' attitude toward reading also had been investigated and concluded that the students had quite high positive attitudes toward reading. It was found that students had positive attitude in the *"highly positive"* category, in the value of 131, which was positioned between 100-150. Therefore, it was assumed that there was still negative attitude that should be awared by the students, teachers and parents, which might come from students' external factors, such as home and school circumstances, family and parental support to increase their reading habits.

The result of testing hypothesis 2 had been answered by applying the Pearson Correlation Coeffecient. It is concluded that the students' attitude implied *positive correlation*, which meant that there was a strong relationship between students' attitude

and the students' achievement in learning inferential reading comprehension. It can be said that the stronger students had positive attitude toward reading inferential comprehension the higher they will achieve the inferential reading comprehension.

In addition, the students mostly chose "*sometimes(kadang-kadang)"*, in answering the questionnaire. It was assumed that they were doubtful in expressing their opinions. There were factors that might affect this decision, such as cultural, family background and social status, as identified as external factors.

Suggestions

Based on the conclusions, it was suggested thatEducators should take into account that Miscue Analysis and Intractive Compensatory Model were the best alternative ways on improving the students' inferential reading comprehension in their teaching and learning programmes to the students in the outside or outside the classroom. Teachers and parents' support or family members were very crucial in developing students' attitude toward reading. Therefore, it was expected that teachers, parents and family members could develop their reading habits at school or at home.The results of the students' attitude investigation had identified the negative factors that might be potentially affect the students' reading inferential comprehension. It is suggested to investigate students' attitude and its correlation with parents' supports as an important topic for further research. As it was found that the students's answers in the questionnaire were *"sometimes (Kadang-kadang)*". It was also suggested for other researchers to investigate why the students mostly response with "*sometimes*" as their expressions. It was interesting to find out what factors affect students's decision in expressing their opinions and expressions to have highly positive attitude toward something. In other words, they could explore their expression toward something confidentially.

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