The Implementation of C-ID, R2D2 Model on Learning Reading Comprehension

Yudi Hari Rayanto[1*] Putu Ngurah Rusmawan[2]

STKIP PGRI Pasuruan, Indonesia, Jl. Ki Hajar Dewantara No.27-29, Purworejo, Kota Pasuruan, Jawa Timur 67118, Indonesia

ABSTRACT

The purposes of this research are to find out, 1) whether C-ID, R2D2 model is effective to be implemented on learning Reading comprehension, (2) college students' activity during the implementation of C-ID, R2D2 model on learning Reading comprehension, and 3) college students' learning achievement during the implementation of C-ID, R2D2 model on learning Reading comprehension. All data are gained from observation sheets from two observers and test given to 31 college students. All data are analyzed by using descriptive quantitative study. The result shows that C-ID, R2D2 model is effective to be implemented. It can be seen from the result of observation that 3,96 which can be called as high category level. In college students' activity during its implementation is high, that is 3,97, and also from the result of college student's learning achievement, all students got more that 90.

Key words: C-ID, R2D2, Learning, Reading comprehension

1. INTRODUCTION

Constructivist Instructional Design or C-ID is a learning design which originally comes from constructivist approach. This approach is as the outcome from the changing of basic components of behaviouristics approach. There are some differences between constructivists and behaviouristic approach. Behavorialists tend to assume that language is a theory-neutral medium through which meaning about an external world can pass without being influenced or changed, while constructivists tend to believe that meaning of a language develops through use of the language and thus is contextual. Regarding nature of truth, behavioralists think that truth and reality are universal and independent of perception, while the constructivists believe that truth and reality are local and transitory. The behavorialists propose that through the use of proper methods (e.g., scientific research) human can know what that external reality is. They assume that objective knowledge is universal knowledge and that objective can be distinguished from subjective. Constructivists deny that objective knowledge exists. They say that humans cannot take a "God's-eye view" and make objective decisions. Positions of the Alternative Model Currently, the majority of the ID models are built upon an objective-rational behavioral theoretical framework. The constructivist approaches to educational technology, however, focus mainly on instructional theory rather than instructional design models.

In learning, mostly, the lecturers thought if they cannot attend and give the material in the classroom, the students are assumed that they do not master anything. This assumption can be true because in fact when students come to campus and the lecturers cannot attend, they mostly are lazy to do a scientific learning activity. Besides that, when the studetns college are in the classroom though the lecturer exists and give the material in the classroom, they generally like chatting into one another, or just sitting without doing a scientific and critically thinking. They are realy passive on doing so. Hassoubah (2004) states that students can be said less on thinking scientifically because students in doing their activity is less on the process of thinking itself. Therefore, the lecturer must encourage themselves or improve their teaching process for making the students are interested in learning. According to Ardhana (1997) dan Degeng (1999), the less of its optimal in teaching process because (1) lecturers are unable to conduct the learning process which is in line with the development of instructional technology, (2) lecturers have a negative perception or misunderstanding about a learning process, (3) lecturers use learning concept which isnot relevant with the development of instructional technology. Therefore, all lecturers are suggested to be more creative in designing and developing their learning process. One of them is by using C-ID, R2D2 model.

R2D2 comes from Recursive, Reflective, Design and Development model. (Colon, Taylor, & Willis, (2000). R2D2 is a procedure of constructivist learning design which focus on its learning process creativity. This procedure tends to iteratively on its learning and material process. The design is also non-linear, meaning that any aspects of the design which are not fundamentally required to be sequential can be done in any order (Chen & Toh, 2005), as well as revisited at any time. R2D2 has its characteristics as, 1) The process is recursive, nonlinear, and sometimes chaotic. It depends on real problems on learning which always grows up. (2) Planning

is organic, developmental, reflective, and collaborative, (3) Objectives emerge from design and development work. (4) General ID experts do not exist , (5) Instruction emphasizes learning in meaningful contexts, (6) The goal is personal understanding within meaningful contexts, (7) Formative evaluation is critical, and (8) Subjective data may be the most valuable. R2D2 here focuses on 3 focal points, they are define, design and development and dissemination. In this research, the researcher explores these focal points as the procedure on doing learning reading comprehension.

Reading comprehension is derived from two terms, those are reading and comprehension. Reading is the process of receiving and interpreting information encoded in language form via the medium of print, Grabe (2009:14). Learning reading is not learning how to read a text only, but also learning about vocabulary, and grammar. These components are so crucial, if learners do not have these components, of course, they will never be able to comprehend the content of the text. Besides that, in reading activity, the readers have to construct the meaning of words or even sentences which exist as the content of reading text. Meanwhile Comprehension occurs when the reader extracts and integrates various information from the text and combines it with what is already known, Koda, (2005:4) in Cahyono, (2012). We typically make use of our background knowledge, vocabulary, grammatical knowledge, experience with the text and other strategies to help us understand the written text . As learners, we have to have an ability to comprehend the content of a text. When we are in the purpose of comprehending the text, we must have a wide range of capacities and abilities. They include cognitive capacities, motivation and various types of knowledge. Here, we should be able to extract the content from any text at all. If we are only able to extract in a single text, of course , it is not satisfying enough. Besides that, comprehension does not occur by simply extracting meaning of from text. Language and content is interrelated to one another. We have to know how language is used for conveying the content. Therefore, we have to read a text carefully, because it relates to our own prior knowledge for interpreting the message that the writer sends to us. It is undeniable that sometimes when some one asks about the content of the passage, we sometimes cannot answer it well. It probably happens because we do not fully comprehend the content of the text.

Based on the explanation above, the researcher formulates these problems as follows:

1. How effective is the implementation of C-ID, R2D2 model on learning Reading Comprehension?

2. How is college student's activity during the implementation of C-ID, R2D2 model on learning Reading comprehension?

3. How is the result of college student's achievement during the implementation of C-ID, R2D2 model on learning Reading comprehension?

2. RESEARCH METHOD

This research is designed through the use of C-ID, Willis (2000), R2D2 model. It has 3 focal points, they are define, design and development, and dissemination.

1. Define

As the first step, the researcher defines a team. It consists of college students, lecturer from reading comprehension itself and observers. It has a purpose to help and support the researcher during the research being conducted. If there is a problem during the learning process, the team can give some valuable in put for overcoming the problem.

2. Design and development

This stage is divided into four components, they are (1), determining the place of research, college students, lecturer and observers. In this step, the researcher chooses college students, lecturer and observers from STKIP PGRI Pasuruan, Indonesia as the subjects and place of the research. The college students here are in academic year of 2015, whereas the amount of college students are 31, and the observers consist of two observers, (2), determining media and its format. In this step, the researcher uses picture on learning process, (3), evaluation procedure. Here, the researcher uses observers to score lecturer and college students' activity during the learning process and gives a test in every meeting, (4) design and development. Before the learning process is conducted, the researcher and collaborator design the learning through the use of SQ3R strategy and develop this strategy on learning process.

The design and development of SQ3R strategy as, (1) Surveying strategy. In this step the researcher uses a picture. The picture given has a relationship with the theory conducted. Here, lecturer or researcher asks learners to observe the picture given to explore their prior knowledge. Through this strategy, the lecturer (researcher) is able to know how far his learners' knowledge are. The lecturer must encourage his learners by giving some questions, for example: Do you know what picture it is? etc. (2) Question strategy, after observing the picture given, the lecturer can continue questioning learners with some questions. Here, the lecturer can point some students to answer the questions given. The questions given have relationship with the theory. In this step, the learners have to answer the questions given. (3) Reading strategy, here, the lecturer asks all learners to read a text silently. This strategy is taken for making the learners are able to analyze the content of a reading text. Besides that, the analysis is also about the grammar and vocabulary used, and its pronunciation. (4) Reciting strategy, after reading a text silently, the lecturer asks some learners to pronounce some difficulties words which are given in the textbook. After pronouncing some difficulties words, the lecturer asks some learners to read the text aloud. Here, if the process of reading finds some improper pronunciation, the lecturer must improve the learner's pronunciation After reading aloud conducted, the lecturer asks some question through personal question orally. The question is divided into learner's prior knowledge and the content of the text. It is taken for improving and encouraging learners to speak English spontaneously. After asking learners some questions orally, the lecturer asks learners to do an evaluation based on the text or theory given in written form, and (5), reviewing strategy, both, lecturer and learners altogether review the material given. The lecturer asks learners to review the theory.

3. Dissemination

After the first and second steps are gained, it is implemented in the classroom in 12 meetings. Like in the previous explanation, the amounts of college students are 31 and there are two observers who observe the learning process. Here, the observers give score quantitatively based on the aspects from observations sheets.

The criteria on scoring from observation sheets are the reflection of observers' choice. Therefore, the scoring is designed in observation sheets is 1-4. Getting bigger score means the students are getting better and appropriate with the scoring aspects in observation sheets. The criteria on scoring here based on likert (Sukmadinata, 2010:238). All data obtained are analyzed by using a descriptive quantitative study.

Below are some steps in calculating the data:

1. from the effectiveness of learning process observation sheet

a. Calculating all scores from each meeting.

b. Counting the average score from all meetings on each indicators, the symbol $\overline{I_i}$

c. Counting the average score from $\overline{I_i}$ to all aspects and symbolised $\overline{P_k}$.

Table 1.1: The criteria for the effectiveness of learning process

Interval	Learning category	Criteria for effectiveness
$3 \leq \overline{P_k} \leq 4$	High	Effective
$2 \leq \overline{P_k} < 3$	Enough	Effective Enough
$1 \leq \overline{P_k} < 2$	Low	Not effective

Adapted from Nengah Parta (2009)

Note:

$\overline{P_k}$ is effectiveness category

2. From student's activity observation sheet

a. Calculating all scores in all meeting.

b. Counting the average score from all meetings on each indicators, the symbol $\overline{I_i}$

c. Counting the average score from $\overline{I_i}$ to all aspects and symbolised $\overline{A_j}$.

d. Counting the average all score from each aspect $\overline{A_j}$, symbolised $\overline{a_k}$

Table 1.2: The criteria from student's activity

Interval	Category
$3 \leq \overline{a_k} \leq 4$	High
$2 \leq \overline{a_k} < 3$	Enough
$1 \leq \overline{a_k} < 2$	Low

Adapted from Parta (2009)

$\overline{a_k}$ is student's activity

3. from students' learning achievement

Scoring for test is based on scoring rubric which is managed by the researcher himself as follows:

Table 1.3: Scoring Rubric

No	Aspects of scoring	Score
1	The answer is right, grammar is right,and has variative vocabulary	5
2	The answer is right, grammar is wrong, and has variative vocabulary	4
3	The answer is right, grammar is wrong, and has monotonous vocabulary	3
4	The answer is wrong, grammar is right, and has monotonous vocabulary	2
5	The answer is wrong, grammar is wrong and has monotonous vocabulary	1

Below are some steps on calculating the score obtained from college students:

1.   Scoring students' achievement form the test given each meeting

2.   Calculating the score and determining percentage category from the test material given by using the pattern below:

Achievement level = score from the right answer x 100%

Total score

Criteria:

90 – 100% = excellent

80 – 89%   = satisfying

70 – 79%   = satisfying enough

< 70% = low

3. Determining college students' competence level category from the test given from each meetings. Here, the category is based on STKIP PGRI Pasuruan academic guidance, that is:

   a) If the score < 50 , it can be said that college students have not mastered

   b) If the score ≥ 50 , it can be said that college students have mastered

In this case, college students can be said master by defining college students' competence level category as follow:

   a) if $\geq 80\%$ from total college students have mastered, it can be categorized "success"

   b) if $< 80\%$ from total college students have mastered, it can be categorized "not success"

3. RESULT

After the data obtained, the researcher calculates and counts the result as follows: From observation

A. Table 1.4: Data and analysis data from the result of observation on learning process

Aspek Number -	Meeting from-																								$\overline{I_i}$	$\overline{P_i}$
	1		2		3		4		5		6		7		8		9		10		11		12			
	Result of observation from observer-																									
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2		
1.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4,0	
2.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4,0	3,96
3.	4	4	4	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3,9	
4.	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3,9	
5.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4,0	

From the calculation above, it can be seen that there are different score given by two observers. Observer one gives all meeting with 4, meanwhile the second observer gives 3 in meeting 1 for aspect number 4, 2 and 3 for aspects number 3. After all scores are calculated, the effectiveness of this learning process shows in high level, that is 3.96. It means that learning of Reading comprehension through the implementation of C-ID, R2D2 model is effective.

B. Table 1.5: Data and analysis data from the result of observation on college student's activity

Aspect number	Meeting-																								$\overline{I_i}$	$\overline{A_j}$	$\overline{a}_{k}$
	1		2		3		4		5		6		7		8		9		10		11		12				
	Obsever number																										
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2			
1.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4,0	4,0	
2.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4,0	4,0	
3.	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3,95	3,95	
4.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4,0	4,0	
5.	4	4	4	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3,9	3,9	
6.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4,0	4,0	3,97
7.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4,0	4,0	
8.	4	3	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3,9	3,9	
9.	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3,95	3,95	
10.	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3,95	3,95	
11.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4,0	4,0	
12.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4,0	4,0	

From the calculation above, it can be seen that there are different score given by two observers. Observer one gives all meeting with 4, meanwhile the second observer gives 3 in meeting 1 for aspect number 8, 10, meeting 2 for aspect number 5 and 9 and meeting 3 for aspects number 3, 5 and 8.

So, from the table above, it can be said that he result can be categorized high, that is 3,97. It means that the students have high activity during the learning of Reading comprehension through the implementation of C-ID, R2D2 model.

From the result of student's learning achievement

Table1.6: Data and analysis data from the result from college student's learning achievement

Number of attendance list	Meeting-												Total	F.S
	1	2	3	4	5	6	7	8	9	10	11	12		
	Evaluation score from meeting-													
	1	2	3	4	5	6	7	8	9	10	11	12		
1	82	90	93	95	100	83	92	96	90	98	94	98	1111	93
2	94	92	93	97	96	86	96	98	90	100	98	98	1138	95
3	82	90	94	100	95	90	96	98	90	98	98	96	1127	94
4	85	90	94	96	93	86	92	98	90	98	96	98	1116	93
5	85	89	93	97	100	86	94	100	90	98	96	96	1124	94
6	82	90	93	96	95	83	92	98	90	100	98	94	1111	93
7	91	89	94	97	100	86	96	100	90	98	98	98	1137	95
8	91	92	96	98	100	86	94	98	90	98	98	92	1133	94
9	88	92	94	97	95	86	92	98	90	96	98	94	1120	93
10														
11	88	89	93	98	96	86	96	98	90	96	96	94	1120	93
12	85	89	96	97	100	90	98	98	90	98	98	94	1133	94
13	82	89	93	94	92	86	94	96	90	98	98	92	1104	92
14	88	94	94	98	96	86	94	98	90	96	98	98	1130	94
15	88	89	96	97	100	86	96	98	90	100	98	96	1134	95
16	85	92	94	97	95	90	92	96	90	98	96	90	1115	93
17	91	90	93	96	95	86	98	98	90	99	98	96	1130	94
18	91	89	94	97	96	86	98	98	90	98	98	94	1129	94
19	88	92	96	95	96	90	92	98	90	98	94	92	1121	93
20	88	92	94	95	96	86	92	96	90	96	98	94	1117	93
21	85	89	93	96	95	90	98	98	90	96	98	91	1119	93
22	85	90	92	97	93	90	94	100	90	100	98	94	1123	94
23	85	94	93	97	95	90	98	98	90	100	98	96	1134	95
24	82	89	94	100	95	90	94	96	90	100	98	98	1126	94
25	88	89	96	100	93	90	90	98	90	98	98	96	1126	94
26	94	96	93	100	95	90	94	96	90	100	98	98	1144	95
27	82	89	92	95	91	86	94	98	90	98	92	94	1101	92
28														
29	82	90	96	95	91	90	94	98	90	98	96	94	1114	93
30	85	89	92	94	93	90	98	96	90	98	98	96	1119	93
31	86	89	93	95	93	86	96	96	90	100	98	96	1118	93

From the table above, it can be seen that in the first meeting there are 7 college students got 82, and others got more. After all scores are calculated from first until last test, it can be said that all students are success on doing a test given. It is because all students get more than 90.

4. DISCUSSION

Teaching and learning process should be implemented well in the classroom. This implementation can be said well if lecturer and college students collaborate into one another. This collaboration can happen if lecturer and college students know their own existence. It means, the lecturer must prepare his learning tools, such as lesson plan, material, media, and its strategy and college students should participate and take part in learning process. Here, for arousing students' participation, the lecturer must give a broad chance to college students to construct their own learning. Besides that, the lecturer must use a proper strategy on his learning. In other words, lecturer and college students must collaborate in learning process for avoiding boredom. As stated by Mustadji, (2009), Suparno,(1999), dan Nur, (1998) constructivist approach sees that students individually and or collaboratively construct their own knowledge. But, if, lecturer and college students do not know their position, the learning process cannot run well. According to Ardhana (1997) and Degeng (1999), the less of its optimal in teaching process because (1) lecturers are unable to conduct the learning process which is in line with the development of instructional technology, (2) lecturers have a negative perception or misunderstanding about a learning process, (3) lecturers use learning concept which is not relevant with the development of instructional technology.

5. CONCLUSION

From the result of observation and test which were already obtained and calculated by researcher from 12 meeting, it shows that the implementation of C-ID, R2D2 model high level, that is 3,96 on learning process. It can be said that the learning process is effective to be implemented and for students' activity during the implementation of C-ID, R2D2 model is categorized high, that 3,97. Besides that, the result of students' learning achievement show success. It is because the result of calculation from first score until last score, all students get 90. It indicates that the implementation of C-ID, R2D2 model can be categorized high and can be implemented by all lecturers on learning process.It is suggested to other researchers to do a similar research in different subjects to make this research objectively can be proven. Besides that, hopefully, other researchers can broadly design and develop other strategy which enrich our knowledge in developing strategy for making the learning process especially students or college students interest and enjoy the material given in the classroom.

References:

Ardhana, W.1997. Pandangan Konstruktivistik Tentang Pemecahan Masalah Belajar. Makalah Seminar TEP PPS IKIP Malang.

Cahyono,Bambang Yudi dan Indah, Rohmani Nur, 2012 Second Language Research and Pedagogy. Toward the Development of English Language Teaching in Indonesia, State University Malang Press.

Chen, C. J., & Toh, S. C.2005. A feasible constructivist instructional development model forvirtual reality (VR)-based learning environments: Its efficacy in the novice car driver instruction of Malaysia. In *ETR&D 53(1) pp. 111-123*. Retrieved March 18, 2007 from Ebsco Host online database

Colon, B., Taylor, K. A., & Willis, J. 2000. Constructivist instructional design: Creating a

multimedia   package   for   teaching   critical   qualitative   research.   Retrieved   March   27,   2007   from http://www.nova.edu/ssss/QR/QR5-1/colon.html

Degeng, N.S.1999. Mencari Pendekatan Baru Pememcahan Masalah Belajar, Jayapura: Yayasan Jayawijaya, Kuala Kencana PT.Freeport Indonesia.

Grabe, William, 2007, Reading in A Second Language Moving from Theory to Practice, Cambridge, University Press.

Mustaji, 2009, Pengembangan Model Pembelajaran Berbasis Malah Dengan Pola Kolaborasi Dalam Mata Kuliah Masalah Sosial, ProgramStudi Pascasarjana, Universitas Negeri Malang

Muriadi. 2013. *Pengembangan Perangkat Pembelajaran Matematika Tipe Problem Posing untuk Meningkatkan Penguasaan Konsep Operasi Bentuk Aljabar.* Tesis tidak diterbitkan. Malang: PPs UM.

Parta, I N. 2009. *Pengembangan Model Pembelajaran Inquiry untuk Mempeluas Pengetahuan Matematika Mahasiswa Calon Guru melalui Pengajuan Pertanyaan*. Disertasi tidak diterbitkan. Surabaya: UNESA.

Sukmadinata, N. S. 2010. *Metode Penelitian Pendidikan*. Bandung: PT Remaja Rosdakarya Offset.

Willis, J. Dan Wright, K.E.,2000, A General Set of Procedure for C-ID: the New R2D2 model. Educational Technology, Mar-Apr.5-20