

restricted impact of CAR on education. The limited involvement of teachers within the limited access of teachers to CAR hinders their professional development and their teaching.

[Class] Action Research

[Class] action research is increasingly used by teachers or practitioners in today's education. But what does it mean? Suppose you want a definition of [class] action research. You find different definitions from your own. What is it? Well, [class] action research comprises two parts: "action" and "research". The

The terms of [Class] action research is increasingly becoming popular among teachers or practitioners in today's educational circles. However, do you know what it means?. Suppose you invite two persons to provide a definition of [class] action research, they will probably give two different definitions from your own.

ny, [class] action research comprises “action” and “research”. The term informs us that this kind of research is conducted within the classroom setting (Arikunto et.al. (2006) argue that [class] action research is a way to evaluate classroom practice in which the aim is to improve the teacher himself in which the aim is to improve the teacher in the area of their expertise since the focus is on the teaching and learning process in the classroom and pedagogical skills.

and discussion as a fundamental part of the process. It is called as a reflective process (Ferry, 1998). [class] action research is a process of inquiry done by a teacher or colleague

[any] solutions to the actual problems occurring in the schools, or trying to find the appropriate ways to overcome the problems faced and enhance teachers pedagogical skills and improve students achievement.

Despite the fact that [class] action research plays a significant role in the education, Kemmis and McTaggart (1988) define [class] action research as a reflective activity held by teachers in their classroom with the purposes of improving their professional development or pedagogical practice. This means that [class] action research aims to encourage teachers to think critically and reflectively towards their classroom practice and be able to provide students with a better teaching practice as well as a better achievement as the ultimate goal of education. Indeed, this self-reflective enquiry is likely to bring about benefits for teachers undertaking [class] action research such as improving the rationality and justice of their own social or educational practices as well as understanding these practices and situations in which these practices are carried out (Carr & Kemmis, 1986; Hopkins, 1992).

In another occasion, Ferrance (2000) proposes a definition of [class] action research that it is a process in which teachers critically evaluate their own pedagogical practice carefully and systematically. This critical evaluation is closely associated with four assumptions as the following (Watts, 1985). First, the work of teachers and principals will be considered at best when they have discovered problems by themselves. Second, the effectiveness of teachers and the principal works will happen when they are requested to evaluate and assess their own practice and then find some solution in which they might do differently in the future. Third, teachers and principals collaboratively work to look for some ways of resolving problems of their practice. Fourth, working with colleagues to promote professional development for both teachers and principals.

ation requirements (communication) to keep the research process, a commitment of doing this research by all staff and reserachers involved in. For data from all participants should be fair share in order to fit the agreed due date for all as (2013). The involvement of a group of people in this de energy to the process of the research itself to deadlines assigned and create an environment of ers.

Following is the figure of three types of action res onential impact on teaching and learning suggested by (2000; Milton-Brkich, Shumbera & Beran, 2010).

The following is the figure of three types of action research and their potential impact on teaching and learning suggested by Ferrance (Ferrance, 2000; Milton-Brkich, Shumbera & Beran, 2010).

	Individual teacher research	Collaborative action research	School-wide action research	District-wide action resesarch
Focus	Single classroom issue	Single classroom or several classrooms with a common issue	School issue, problem, or area of collective interest	District issue Organizational issue
Possible support needed	Coach/mentor Access to technology Assistance with data	Substitute teachers Release time Close link with	School commitment Leadership Communication External	District commintment Facilitator Recorder Communication

change, which promotes direct relevance and a pedagogical practice.

In addition, there are some benefits in which teachers might receive through conducting a [classroom-based research]. This research can stimulate teachers to be involved and evidence about students' performance. Second, research can also promote teachers with high quality since they have recognized the specific issue with their pedagogical practice. Third, this research can provide sufficient support for teachers to design and carry out classroom-based research. Fourth, this research can help to disseminate the research findings to other teachers of them in their classroom context. The last benefit is that research can help teachers in different ways.

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over, [class] action research is believed to be a powerful tool for the improvement of reflective thought, critical thinking and action in which teachers or practitioners collaborate with each other on personal issues shared by different classes (Adelman, 1993). To reach a reflective thought research action research the teachers or practitioners need to follow a cyclic process which consists of four stages; 1) planning, 2) observation, and 4) reflection (State of NSW Department of Education and Training, Professional Learning and Improvement Directorate, 2010).

planning the action]

the specific questions they want to achieve as the teacher needs to provide any information required and alternative solutions regarding the concern of the students.

The teacher also needs to think about the available time carefully to conduct class action research. The teacher should analyze class action research as the result of the research questions must not exceed the time limit.

The researcher has to design the research questions that address one single issue arises in the classroom. The teacher is required to select one area of research that directly benefits the teacher themselves,

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title of class action research has to portray something that is being questioned in the field of teaching and learning process and it is called by dependence variable, for instance 'the development of students reading comprehension'. The second is that the title should describe any actions that will be taken to overcome the problem being questioned, for instance 'the employment of collaborative strategic reading'. Therefore, the examples below indicate a good title of class action research at any levels of institution (State University of Makasar, 2010).

No	Title of class action research	Level
1	<i>Guessing pictures by drawing the number area as the alternative of learning media on the development of students' thought</i> Tebak Gambar dengan Mewarnai Daerah Bilangan sebagai Media Alternatif Pembelajaran pada Pengembangan Daya Pikir Siswa	Kindy TK
2	<i>The use of paper wastes of Setia Budi Printing as a medium to develop the students' creativity</i> Pemanfaatan Limbah Kertas Percetakan Setia Budi Sebagai Sarana Pengembangan Keterampilan Anak	Kindy TK
3	<i>The effectiveness English of local content lesson with dice game.</i> Efektivitas Pembelajaran Muatan Lokal Bahasa Inggris dengan Permainan Dadu	Primary SD
5	<i>The development of interpretative reading skill through Jigsaw</i> Peningkatan Kemampuan Membaca Interpretatif dengan Teknik Jigsaw	Secondary SMP
6	<i>The use of simple gene method in developing</i>	Secondary

[Your name] of [name of your institution] [Telephone: _____] is conducting research on the above topic.

The aims of the research are to explore my students' responses to group work in a mixed-ability class. The purpose of the research is to investigate what kinds of grouping work most effectively in my classroom from the students' point of view.

If you agree to participate in this study, you will be asked to complete a written survey and be part of a focus group interview with other students to discuss how you respond to group work. The focus groups will be audio-recorded. The recordings and the notes I take during the interview will be used as information for the project.

Your participation in this research is voluntary and you can withdraw at any time. You do not need to give a reason for withdrawing from the research and this will be no negative consequences if you decide to withdraw. Before the final report for the project is prepared, I will send a summary of what I have written about the surveys and interviews and will ask you to comment on any descriptions or interpretations that you believe are in accurate or mistaken.

When I report on the research, I will ensure that you are not identified. No reference to personal names will be used. I am the only person who will have access to the data collected for the project. Any data I use in reports or publications will be for illustration only. If you wish to have a copy of the final report sent to you, I will arrange for this to be done.

second step of doing [class] action research, it is for teachers or researchers to determine what kinds of information in accordance to the assigned research questions could be gathered (Chamot, Barnhardt & Dirst). The information which is needed can be collected in a number of ways. They might be gathered through observations, interviews, questionnaires, tests, portfolios, diaries, field notes, audio recordings, videos, focus groups, anecdotal records, checklists, portfolios, files, video tapes, case studies, surveys, records-keeping, attendance, self-assessment, and sample work. The data and performances, applied technology such as a blackboard (Chamot et al., 2011; Burns, 2010; Johnson and Salmon, 2001). The teachers or researchers can use a ready-made instrument available to collect the information. For instance, to assess oral proficiency, the teachers can use a proven assessment tool. The data collected can be used in a useful way in order to be able to identify the trends and organising them, for example, into gender, classroom, and so on.

Using various different methods for data collection in action research does not necessarily guarantee you will get much better, but the quality of your data gathered will shape your research. A collection of data which is very deep seems not to be beneficial when the teachers are working on data analysis and presentation (Koshy, 2005). Therefore, the teachers or researchers in action research need to keep in mind that they need to use strong arguments and evidence when the teachers or researchers do the data analysis in order to strengthen the conclusions.

to the application of varied methods of collecting
ion research, the teachers or researchers need to be

many things about data collection particularly in [class] action research (Burns, 2010):

- 1) Techniques used should fit towards what the teachers or researchers want to discover.
- 2) The teachers require balancing between data collection and teaching practice in terms of the effectiveness of gathering data.
- 3) Be up to date to use a creative and adaptable technique of collecting data to meet the teachers' needs and interest in the context of their teaching.
- 4) The collected data is not the end of the research; rather they will connect action, observation and reflection to promote a deeper understanding of the research in which the teachers are carrying out.

Here is an example how teachers or researchers can use classroom activities as the basis for data collection.

Regular classroom activities	[Class] action research data collection
Teaching new grammar items	Audio-record classroom interaction or students group work responses to see how the students are using them
Teaching aspects of writing [e.g. structuring the essay]	Collect students' text over a set period of time and monitor the improvements and gaps in their writing
Using different materials	Discuss with students their reaction to new materials compared with previous materials
Teaching vocabulary	Give students a survey asking them for their responses to different vocabulary activities
Encouraging students to take more responsibility for learning	As students to write a letter to a class partner to explain their most

b) Coding the data

- 1) Based on the general description of data, teachers begin to narrow the data by coding them into more specific categories.
- 2) Teachers, then, classify those data into two sections, those that can be coded qualitatively [e.g. journal entry] and those that can be coded quantitatively [e.g. questionnaire].

c) Comparing the data

- 1) When the coding process is accomplished, teachers need to go further for comparing diverse sets of data across categories.
- 2) Teachers or researchers create a table or chart to arrange the data in more concise form.

d) Building meanings and interpretations

- 1) Teachers or researcher need to think critically about the data beyond their surface meanings.
- 2) Teachers are encouraged to observe the abstract thought of the data found.
- 3) Teachers or researcher have to set questions, find the relationship and build description about the research in order to create the widest comprehension.
- 4) Teachers or researchers need to improve their individual theories about what the research means.

e) Reporting the outcome

- 1) Teachers or researcher have to think on how they will present and disseminate their research findings.
- 2) Teachers or researcher need to find some ways on how to manage and maintain the whole research process from the start until finish.

Depending upon the questions in which teachers have already decided, the data collected can be analysed qualitatively or

While dispersion is associated with range [the spread across all the number you have], and standard deviation [finding an average distance of each score from the mean].

4) Reflection [reflecting and planning for further action]

Reflection is the final step in the cycle of [class] action research. In this section you might take all the process to the end. You can also draw your conclusion and interpretation followed by a statement of the whole story of your research. In [class] action research, a reflection should cover innovative insights, thoughts and comprehension about what you have done and discovered. This might occur since the beginning of conducting research (Burns, 2010). This stage will look forward the whole process of the research so far and the planning of the next step in which the researchers or teachers might do.

This reflection will emphasize on the process we have passed through [class] action research cycle and the knowledge we have attained from [class] action research. In the reflection of [class] action research cycle, we will focus on the experience either on teaching or [class] action research with a purpose of building knowledge resulting from systematic classroom investigation. Therefore, the reflection in [class] action research brings about a significant effect on how the teachers construct their personal knowledge of their teaching quality (Golombek, 2009).

The first reflection, which is about [class] action research cycle, will be classroom action. Practical action in the class is central in [class] action research and it always drives to the reflection. Therefore, practice and reflection are an integral part and cannot be separated to each other in the process of [class] action research. The second concern of the reflection is on the research process. This deals with the relationship between teaching practice and research which are very close and systematic. Action and reflection have a tight relationship and this becomes a crucial part in the research process in

case [class] action research provides profound emotional situation rather than a daily-based teaching. It is something to do with feelings and experience. [Class] action research does not only focus on concrete aspects but on emotional and psychological aspects of teaching. Research reflection, then, is associated with teaching towards the change of our practice. Altrichter et al. (2002) [class] action research is the art of possible changes and make positive changes toward the practice. Second reflection is on planning the next step. As a dynamic process of research, it might be the [class] action research (Burns, 2001).

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- Are there any parts or words that are hard to understand [clunk]?
- How can we fix the clunk?

- 1) Reread the sentences and look back for the key ideas to help you understand the word.
- 2) Reread the sentences before and after looking for clues.
- 3) Look for prefix or suffix in the word.
- 4) Break the word apart and look for the smaller words.

- 1) What is the most important person, place or thing?
- 2) What is the most important idea about the person, place or thing?

As the reader has already finished reading the reading text, that would be better to wrap-up the passage by asking two important questions. For instance, what questions would check whether we understand the most important information in the passage?. This must be followed by another question; can we answer the questions proposed?. Another valuable step in this part is to do a review of the passage. This can be done by asking question such as what did we learned? ((Vaughn, Klinger, Swanson, Barman, Robert, Mohammad & Stillman-Spisak, 2011).

4	Analysis and discussion							
5	Writing the final report							

Furthermore, the readers who have good reading comprehension can grasp the meaning and the organization of the writer's idea. The readers bring their previous knowledge and experience into relation with their present reading; compare the facts and arguments presented by the authors. To support this idea, Harris (1969) explains reading comprehension can be gained from several skills. They are:

- Related to reading strategy, the reader should have effective reading strategies to gain the better reading comprehension. Reading strategies can be defined as “plans for solving problems encountered in constructing meaning” (Duffy in Richard & Renandya, 2002). It means that the strategy is a tool to achieve the reading goal. In other words, the goal of teaching reading strategies is to create students become strategic readers. Being strategic reader is not easy; it takes time and needs a lot of practices.

Genre refers to a class of communicative events such as a seminar presentation, a university lecture, or an academic essay (Paltridge, 2001). In line with that, Richards, et al (in Paltridge, 2001) describe genre as a particular class of events that are considered by a discourse

new to students, these terms can be introduced. Students are asked to read the passage.

Reading phase

The primary purpose of the reading phase is to facilitate the reading of the selected passage. It provides more academic opportunities for students to practice in activities while reading for meaning. Strategies in applying this phase are highlighting the text, predicting the content of the text and determining the main idea. They are:

- Read with the specific purposes

The teacher can ask the students to read with a highlighting

- reading.
- Then students can take abbreviated notes on a separate paper about the text while they are reading.
- Teacher can ask the students to work in groups or alone to predict what will happen next in the text. In this way, students are exposed to diverse reactions and interpretations of the text. They can work together to hypothesize the content of the rest of the reading passage.
- The last is determining what has happened in the text. This can be done by asking the students to read the text in segments. That is, students can be asked to read the text sentence by sentence.

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- 3) Then students can take a piece of paper about the text while reading.
- 4) Teacher can ask the students to predict what will happen next. When students are exposed to different parts of the text. They can work together to discuss the rest of the reading passage.
- 5) The last is determining what the main idea can be done by asking the students to summarize. That is, students can be asked to summarize the text.

ing phase, students need to follow up with a post-reading phase. The reading stage can discuss the text with their class to find the main idea or specific issue from the text, in groups or as a class. Rather than summarize main points, teacher can pose questions for more communicative interchange. After summarizing or reactions. Students can orally or written summarize and react to the information from the text. Activities that students can apply information from the text to a new situation, problem solving, or decision making.

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was a classroom action research. The language classroom is a tool for teacher development to improve the way of teaching and students' understanding of classroom teaching (Mc Taggart: 1982). In the line with this research is to improve the quality of learning. In this case, the researcher wanted to improve the comprehension at senior high school in Pangajene.

At the end of cycle 1, the researcher conducted the reading comprehension test to the students. The reading test was one instrument to measure the reading improvement. The result could be seen in the table below:

Table 4 students' reading comprehension test result in cycle 1(pre-test)

Students' code	Score	Criteria
1	64	Incomplete
2	62	Incomplete
3	78	Complete
4	62	Incomplete
5	52	Incomplete
6	60	Incomplete
7	40	Incomplete
8	48	Incomplete
9	32	Incomplete
10	44	Incomplete
11	60	Incomplete
12	21	Incomplete
13	62	Incomplete
14	94	Complete
15	60	Incomplete
16	48	Incomplete
17	32	Incomplete
18	32	Incomplete
19	65	Complete
20	42	Incomplete
21	28	Incomplete
22	44	Incomplete
23	36	Complete
24	32	Incomplete

Reflection

The problems were as follows:

- They did not really understand the concept of reading strategies derived from genre based approach. So they could not implement them in reading
- They lack of vocabulary to comprehend the reading text and express ideas with their own friends
- They lack of self confident to answer and ask the questions from the teacher and other students
- They were afraid of making mistake. So they felt in doubt to participate in any reading activities

There were two topics in the second cycle. The cycle was done in four meetings. The first and the second meeting were done on the 17th and 20th of May 2007. The third and the fourth meetings were held on 22nd and 23rd of May 2007. The time for each meeting was 80 minutes (2x40 minutes)

	willingness to work in group	(58.3%)			
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dismissal bell. Several times a week students would ask to stay after school and work on the computers. One group worked for an hour and a half after school and would have stayed longer, but I had to go lock up for the day.

Twenty-eight of the thirty-one members of the class responded to the pre- and post-study surveys. One member of the class withdrew from school during the study period, and two students did not return their surveys.

The pre- and post-study attitudinal surveys show an increase in my students' enthusiasm for learning science (see Table 1 on the following page). In the pre-study survey, 75% of the students were enthusiastic or very enthusiastic about learning science, while the post-study survey showed 96% of the students enthusiastic or very enthusiastic about learning science. When the students were asked how enthusiastic they were about doing science away from school, their responses showed a decrease in enthusiasm for learning science away from school after the study as compared to pre-study data. On the pre-study survey, 49% of the students were enthusiastic or very enthusiastic about doing science away from school, while only 28% of the students were enthusiastic or very enthusiastic on the post-project survey. Students' comments on the post-study survey concerning their diminished enthusiasm for learning science away from school centered around the lack of availability of computers and software at home. Only eight students had access to a computer at home, and only one student actually had the Hyper Studio computer program to use at home.

When the students were asked how they had liked learning science so far this year, their responses again showed an increase in enthusiasm for learning science. On the pre-study survey, 70% of the students were enthusiastic or very enthusiastic about learning science during the first half of their eighth grade year, while 81% of the students were enthusiastic on the post-study survey.

The students were questioned before and after the study about their likes and dislikes while learning science this year in an attempt to determine the impact that the topic of oceanography had on their enthusiasm for learning science during the study. The students' responses all centered around the method of instruction rather than the curriculum. Their responses made reference to lectures, note taking, group work, projects, lab work, using computers, etc. Since the students did not mention content in their likes or dislikes, I do not think the topic used during this study had a significant effect on the results of this study.

The increased enthusiasm of my students was made apparent during the study through two separate incidents. The first incident occurred during the second week of the study. Seven of my students missed class one day a week to participate in a gifted program. These students told the teacher of the gifted program that they did not want to miss class while they were working on a computer presentation. However, these students were not allowed to miss gifted class and were very unhappy.

The second incident occurred during the sixth week of the study. The entire student body was being rewarded with an incentive assembly. They were allowed to watch or participate in a student versus faculty basketball game instead of attending sixth and seventh period. eventeen of my students in the seventh period study group asked for permission to miss the incentive assembly and spend the two hours in science class working on their computer presentations.

research.

There are three types of [class] action research: individual [class] action research, collaborative [class] action research, and school wide action research.

Four models of [class] action research are identified. They are Kurt Lewin model, Kemnig model, John Elliot model and Eileen Fennell model.

The four stages of [class] action research are: planning [planning the action], acting [taking the action], observing [observing the action], and reflecting [reflecting and planning the next action].

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