Facilitating Students Overcome Their Limitations through Doing Their Own Action Research

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Abstract—An action research titled *Facilitating Students Overcome their Limitations through Doing their Own Action Research* was conducted with the volunteering students (n=3) to authenticate if students doing action research on their own could solve their issues of learning. In addition to assessment records pre and post-intervention, interview and journals were used as data collection tools. Mixed method was used to analyse data. Assessment records were presented in figures and tables. Data collected from interview and journals were analysed thematically to ascertain with students' scores post-intervention. Students acknowledge the importance of action research and they intend to conduct their own action research in the future.

Index Terms—action research, limitations, assessment, learning

I. INTRODUCTION

Corey (1953) defines action research as a process in which practitioners study problems and evaluate, improve and steer decision making and practice (p. 6). Hence teachers conduct action research to study and solve their issues, and develop. Ferrance (2000) declares that action research must be conducted for professional development, collegial interactions, self-reflection, positive change and to solve school issues (p. 14).

Action research is common among teachers in Bhutan. Maxwell states that there was a growing interest in action research in Bhutan (2003, p. 1). However, many teachers started to conduct action research after the announcement of *Sherig* endowment fund of *ngultrum* twenty thousand funded by the Ministry of Education in 2016. The Education Ministry selected its first batch of 36 action research proposals under the fund (Bhutan Broadcasting Service, 2017).

Although more than 30 action research proposals of teachers in Bhutan are selected for the endowment fund annually, students might have participated in the action research as participants. They might have answered the questionnaires and attended the interviews. Students in Bhutan have no experience about how action research is conducted. Hence, teachers need to task students with the conduct of action research on their own. By identifying their limitations, finding their own strategies and eventually solving issues on their own, conduct of action research will "have an impact on students' personal development" (Gündoğdu, 2019, p. 135). Therefore, students must be encouraged to do action research on their own. This will not only make them learn, but give them satisfaction in the end because of "taking the responsibility for learning" (Egel, 2009, p. 2023).

Thus, the question of whether making students do their own action research will be successful in the researcher's classroom setting captured the interest of the researcher. Hence, this study explores the effectiveness of students' doing their own action research in solving their limitations of learning.

II. RECONNAISSANCE

In this action research, reconnaissance consists of situational analysis, competence of the teacher researcher and participants and review of literature (Royal Education Council, 2018, p. 8).

A. Situational Analysis

Situational analysis is a situation when a researcher critically assesses the realities of the current situation he or she is in and wants to improve upon his or her practices (Royal Education Council, 2018, p.8).

Phuentsholing Higher Secondary – practising school

Phuentsholing Higher Secondary School, Chukha Dzongkhag, Bhutan, was established in 1983. The school was inaugurated and upgraded to a High School in 2000 which was further upgraded to a Higher Secondary School in 2003. In 2004, the first batch of students graduated from class 12 with 100% pass percentage. The school was awarded with Top Ten school certificate in 2009, 2012, and 2013. In 2014, a class 10 student topped whole Bhutan with third position. Though the school result fluctuated in the later years, Phuentsholing Higher Secondary School was recognized by the Education Monitoring and Support Section Division (EMSSD) for commendable increase in pass percentage in 2018 in comparison to 2017. Besides various awards for academic excellence, improving students' academic excellence has been a challenge.

The participants in this action research were volunteering students (n=3) from one section (n=25) of class 12 Science. Students acknowledged English as their main subject for them to qualify for the next grade. However, the researcher

consistently observed students' waning interest in learning English. Students' reluctance to participate in the classroom discussions is one example of students' weakness. The other issues include students' pronunciation errors and inability to spell the words correctly. The detail of students' inability to write correct spelling, mispronunciation of words and minimal classroom participation rate is described in the *Pre-Intervention: Baseline Data* section.

B. Competence

The researcher has been teaching English for different class levels ranging from Pre-Primary till Class 12 for eleven years. Besides attending one School Based In-service Program (SBIP) on action research in the school conducted by the school Vice Principal, the researcher attended three-day training on writing action research. Until now, the researcher has published one conventional research with the Scopus indexed *The Journal of Asia TEFL* and one action research with the peer-reviewed *Bhutan Journal of Research and Development*, a journal maintained by Royal University of Bhutan.

Students have little knowledge about action research. They participate in various action researches conducted by teachers.

III. REVIEW OF LITERATURE

Burns (2010) is of an opinion that the main activity that has been going on in education system is action research (p. 3). This is true not only in the context of the world, but also in the context of Bhutan. In relation to this, Maxwell states that action research has been in use in Bhutan since 1998 after teachers and principals from rural areas visited Australia to learn about multi-grade teaching in 1993 (2003, p. 12). However, there is no literature which shows what had happened since then. Nevertheless, the conduct of action research flourished among the teachers in Bhutan since the introduction of a fund called *Sherig* endowment in 2016. Funded by the Ministry of Education, the grant aims at promoting research culture and addressing challenges related to quality teaching and learning (Kuensel, 2016).

Action research is defined as a reflective procedure which aims at solving a particular teaching-learning problem identified by teachers in a classroom setting (Kasula, 2015, p. 230). Accordingly, much research has been carried out to contribute to effective teaching in the world of ELT (Gündoğdu, 2019, p. 134). However, action research is not limited to teachers only. McGraw-Hill Education (2017) posits that this valuable technique of doing action research can also be taught to students within the classroom (p. 2). By making students do their own action research, Najeeb (2013) shares that students can uphold their independence by learning, reflecting, and using appropriate language (p. 1240).

However, there is a limited number of literatures which reveals about students doing action research on their own. A study piloted by Najeeb (2013) pronounces that in the conduct of an action research, the learners set their own objectives and followed strategies devised by them to fulfil them, and this facilitated the learner to become more efficient and effective (p. 1238).

A rather detailed study was conducted by Gündoğdu in 2019 on the title *Helping EFL Students Overcome their Limitations through Doing their own Action Research*. The research explored the journey of two EFL students doing their own action research (p. 134). Besides the improved result of both the participants, the research which was conducted at Çukurova University helped these two students gain a lifelong skill which could be applied to other fields whenever they encountered a problem (p. 139).

Studies conducted by Najeeb (2013) and Gündoğdu (2019) proved the success of their students doing action research on their own. Thus, the question of whether making students do their own action research will be successful in the researcher's classroom setting captured the interest of the researcher.

IV. ACTION RESEARCH QUESTION

This action research revolved around the following main research question:
Can students solve their limitations of learning by doing their own action research?

Aims of the Action Research

This action research aimed at investigating:
1. the kind of interventions the students implemented to overcome their weaknesses.
2. the outcomes of students doing their own action research.

V. RESEARCH DESIGN AND METHODOLOGY

This action research was conducted with the volunteering class twelve Science students (n=3) for three months based on voluntary response sampling method. Voluntary response sampling method is a non-probability sampling method where people self-select for the survey (McCombes, 2020). Data were collected from the three main sources of students' assessment records, interview and journals. Mixed method was used to analyse the findings. Mixed method is defined as the integration of quantitative and qualitative data within a single investigation (Agency for Healthcare Research and Quality, 2013). Assessment records were analysed descriptively and data from interview and journals were analysed thematically.

In addition to the researcher's knowledge about students' lack of interest in English, students were provided with a self-reflection sheet to identify their own strengths and weaknesses in learning English. Following this collection, students were asked whether they would like to conduct an action research on their own to solve their issues. Students were provided with one-week time to decide. After one week, 3 students which accounts to a mere 12% of total students (n=25) volunteered to conduct their own action research.

Next, the researcher conducted a lesson with the three volunteering students on the process of action research. The researcher promised to guide the students and provide assistance wherever they needed. Subsequently, the students were asked to identify one main issue each in learning English and their intervention strategies to solve this issue. They were asked to discuss with their friends, parents and teachers, and arrive to a conclusion of their action plan.

Finally, students were asked to carry out their intervention strategies. Their intervention strategies lasted for three months. In the process, students were asked to maintain a reflective journal each of their journey of study. The researcher met with the students every week and cleared their doubts regarding the process of action research.

In general, the theoretical framework and action research plan adopted in this research was a cyclical and spiral four-stage process, namely planning, acting, observing, and reflecting (Royal Education Council, 2018, p. 8).

A. Assessment Record

Assessment is one of the three main data collection tools. Under this category, the three modes of assessment were spelling test, classroom speeches and rate of classroom participation. As a baseline data, students were conducted with a spelling test and classroom speeches. In addition, students' rate of classroom participation was recorded. The record of these three assessments was the baseline data for the researcher.

After the intervention process, another round of assessment was conducted. Students were conducted with one spelling test. The researcher continued with students' classroom speeches. During the English lessons, students' classroom participation rate was observed and recorded. The post-intervention assessment record of the three volunteering students was compared with the record of their pre-intervention scores. Data gathered from the three tools were analysed descriptively.

B. Interview

After students completed with their intervention process, they were conducted with an unstructured questions interview each. The interview was conducted to ascertain with their post-intervention assessment results, and to gather their perceptions about the conduct of action research on their own. Students' views gathered from the interview were analysed thematically.

C. Journals

Following the assessment and interview, students' journals were collected. Journals were collected mainly to refer for students' experiences of conduct of action research and to verify if their reflections in the journals were in line with the results from the assessment and their perceptions gathered from the interview.

VI. PRE-INTERVENTION: BASELINE DATA

The baseline data of the researcher was the record of students' spelling test, classroom speeches and classroom participation rate. The three tools were chosen based on the three volunteering students' identification of their issues. The main issues identified by the three students were spelling errors, pronunciation errors and failure to participate in the classroom. The researcher's pre-intervention data was automatically the baseline data for student researchers.

Assessment Record

Although assessment record of spelling test, classroom speeches and classroom participation rate of all the students (n=25) of one section was maintained, the following figure presents the assessment record of the three volunteering students. Student 1 identified his inability to spell the words correctly as his issue. Student 2 chose his failure to pronounce most of the words correctly as his problem, and student 3 picked his inability to actively participate in the classroom as his weakness.
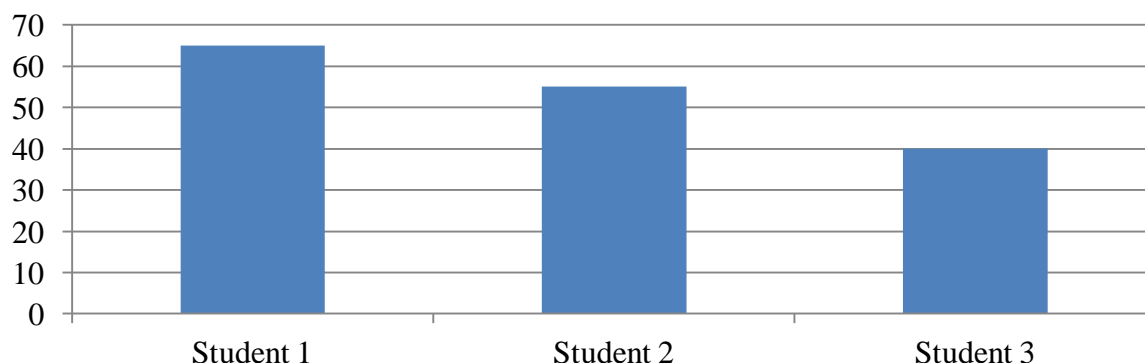
Figure 1 Assessment Record Pre-Intervention

As evident from the figure, student 1 whose issue was with spelling error has scored 65% in the spelling test. The test warranted students to write commonly misspelled words. The issue of student 2 was pronunciation error. The researcher recorded whenever students made pronunciation error during the classroom speeches. Student 2 has scored 55%. Student 3 whose issue was inability to participate in the classroom actively has a participation rate of 40%. Students' classroom participation rate was measured based on "the frequency of number of questions raised, frequency of clarification sought, volunteering to answer the question, taking initiative in the group work, any sort of misbehaviour, peer interaction and interaction with the teacher" (Rinchen, 2009, p. 11).

Before the student researchers started with their intervention action, they were familiarized with their assessment scores as their baseline data.

VII. INTERVENTION

After three students volunteered to do action research on their own in order to curb their issues in learning English, the researcher conducted a short presentation on the process of action research as suggested by McGraw-Hill Education. The stages included:

> "deciding on a topic, creating questions about the topic and projecting answers, collecting data and evaluating the results, looking at the questions and answers again and deciding if changes need to be made, and identifying what was learned from the process and what steps need to be taken moving forward" (2017, p. 3).

Successively, students were asked to identify one pressing issue each of theirs in learning English and devise an action research question. Students were also asked to discuss with their friends, teachers and browse internet, and come to a final decision with at least three strategies to solve their issues. Later, students were asked to make a plan of action about how they were going to implement their strategies. Students completed this action plan in one week.

In the following week, the researcher met with the students and reviewed their plans. All the three students reported to have discussed with the other teachers with regard to finding strategies to solving their issues. None of them had discussed with their friends because no students had the experience of conducting action research.

Beginning third week, student researchers started with their intervention process. In order to keep them on track with their action, the researcher held meetings with individual student researcher on different days. They shared their experiences, and the researcher encouraged them. If student researchers had issues, the researcher solved them instantly. After student researchers completed their intervention action in three months, the researcher conducted an interview with individual student to ascertain their views with the data collected from the assessment, and to gather their perceptions about the action research.

Students' Intervention

The issue of student 1 in learning English was his spelling errors. Student 2 faced difficulty in pronunciation of words. Finally, student 3 reported his lack of confidence to actively participate in the group and whole class discussion. The detail of student researchers' issues, aims and intervention strategies are mentioned in the table below.

TABLE 1
STUDENTS' INTERVENTION PLAN

Student researchers	Student 1	Student 2	Student 3
Issues	Spelling errors	Pronunciation errors	Failure to actively participate in the class discussion
Aim	*Lessen spelling error*	*Lessen pronunciation error*	*Actively participate in the classroom discussion*
Intervention 1	Learn commonly misspelled words	Listen to BBC news channel	Speak in English with parents
Intervention 2	Play word games and crosswords	Practice tongue twisters	Listen to BBC news channel for correct pronunciation of words
Intervention 3	Attend online spelling competition	Feedback from teachers, parents and friends	Speak to self in front of the mirror

VIII. POST-INTERVENTION

Following three months of students' intervention processes, assessment was carried out in three areas. All the students (n=25) of one section were conducted with a spelling test. The test was conducted to compare with the baseline data of student researcher 1 whose issue was with spelling errors. Students were continued with their classroom speeches. This was targeted at student researcher 2 whose issue was with pronunciation. As English lessons continued, students' classroom participation rate was observed and recorded. The observation was conducted mainly to record classroom participation rate of student researcher 3.

The detail of post-intervention assessment record of the three student researchers is reflected in the figure below.
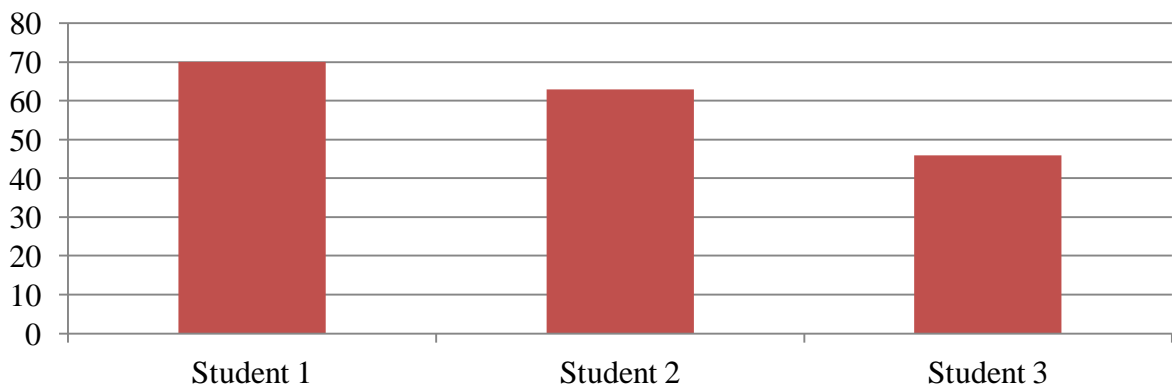

Figure 2 Assessment Record Post-Intervention

During the post-intervention, student 1 whose issue was with spelling error scored 70% in the spelling test. The issue of student 2 was pronunciation error. He scored 63% during the post-intervention. Student 3 whose issue was inability to participate in the classroom secured a participation rate of 46% during the post-intervention assessment.

Additionally, the researcher conducted an interview each with individual student and collected their reflective journals to ascertain with the results derived from the assessment post-intervention.

IX. RESULTS AND DISCUSSION

To discuss the results of this study, it is imperative to revisit the aims of this action research. This study aimed at investigating:

1. the kind of interventions the students implemented to overcome their weaknesses.
2. the outcomes of students doing their own action research.

Answer to aim 1: *Investigating the kind of interventions the students implemented to overcome their weaknesses* is summarized in the following table.

TABLE 2
STUDENTS' INTERVENTION PLAN

Student researchers	Student 1	Student 2	Student 3
Issues	Spelling errors	Pronunciation errors	Failure to actively participate in the class discussion
Aim	*Lessen spelling error*	*Lessen pronunciation error*	*Actively participate in the classroom discussion*
Intervention 1	Learn commonly misspelled words	Listen to BBC news channel	Speak in English with parents
Intervention 2	Play word games and crosswords	Practice tongue twisters	Listen to BBC news channel for correct pronunciation of words
Intervention 3	Attend online spelling competition	Feedback from teachers, parents and friends	Speak to self in front of the mirror

As revealed in Table 2, each student researcher identified one issue and three strategies each. Student 1 who had an issue of making spelling errors aimed at lessening the spelling errors by learning commonly misspelled words, playing word and crossword games and attending online spelling competition. The three strategies devised by student 2 were listening to British Broadcasting Centre (BBC) news channel, practising tongue twisters and taking feedback from teachers, parents and friends. Student 2 aimed at lessening pronunciation errors. Student 3 targeted at actively participating in the English classes after speaking in English with parents at home, listening to BBC news channel focusing on correct pronunciation of words and speaking to self in front of the mirror.

A. Assessment Record

Record of spelling test, classroom speeches and classroom participation rate was collected twice, once before and once after the intervention action. The comparative analysis of the record of assessment of the three student researchers is reflected in the figure given below.
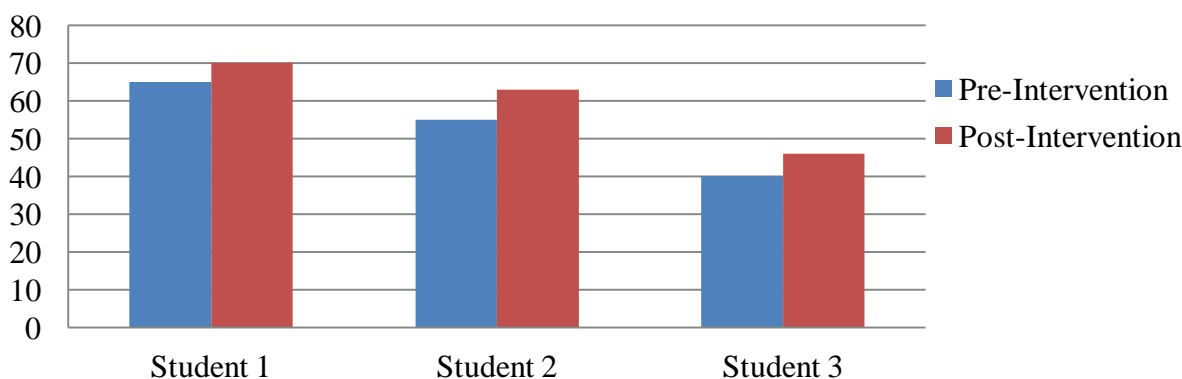

Figure 3 Comparison of Assessment Record

Figure 3 interprets the comparative analysis of the three student researchers' record of assessment pre and post-intervention actions. The record is measured in %.

With regard to student researcher 1, his score increased from 65% during the pre-intervention to 70% during the post-intervention spelling test. His 5% increase during the post-intervention test signifies the success of the intervention strategies. The student researcher lessened spelling error by learning commonly misspelled words, playing word and crossword games and attending online spelling competition.

Similarly, student 2 showed an increase of 8% from 55% during the pre-intervention to 63% during the post-intervention. Student 2 listened to BBC news channel, practised tongue twisters and taken feedback from teachers, parents and friends. The increase in the pronunciation accuracy proves the success of his intervention strategies.

Finally, student 3 shares a similar success trend. His classroom participation rate of 40% during the pre-intervention increased to 46% during the post-intervention observation. An increase of 6% in his classroom participation rate is due to application of his strategies such as speaking in English with parents at home, listening to BBC news channel focusing on pronunciation and speaking to self in front of the mirror.

The highest increased rate in assessment is 8% by student 2 while the lowest increased rate in assessment is 5% by student 1. The difference in assessment is not astounding. Nevertheless, aim 2 of this action research: *Investigating the outcomes of students doing their own action research* is answered by the improved outcome of all the three student researchers. The outcome of students doing their own action research is 'effective'.

B. Interview

An unstructured interview was conducted once post-intervention to ascertain with data gathered from the record of two rounds of students' assessment. The interview was also aimed at collecting student researchers' perceptions about conducting action research on their own. Answers to the questions were analysed thematically. In general, interview with one student researcher lasted from around a minimum of 10 minutes to a maximum of 15 minutes.

When the student researchers were asked to share their experiences about conducting action research on their own, all of them reported that they had challenging, yet satisfying journey. They discovered that choosing right strategies to solving their issue was their main trouble. However, they posited that selecting the right strategies could solve all the issues. Thus, the first theme derived from this interview is the right choice of strategies. This is applicable to all the teachers. Teachers must implement right strategies if they want to solve their students' issues with their subjects.

The second theme concluded from this interview is the importance of autonomy for students to learn by themselves. Student 1 expressed that figuring out his strategies himself was daunting, but fruitful. He added that he would not have thought of his own strategies if he was not provided with this opportunity of conducting action research on his own. The other student researcher informed that he was entrusted with extra responsibility of discussing with his friends, teachers and parents, and this autonomy to learn on his own provided him enough room to explore and come to a conclusion. These points are in agreement with Najeeb (2013) who states that learning hardly takes place unless the learner is in charge (p. 1239). This is yet another lesson a teacher must consider. A more of student-centred classrooms must be set rather than the traditional classroom approach of teacher taking the whole charge from the introduction till the conclusion of the lesson.

The final idea established from this interview is the significance of action research. The researcher asked the student researchers whether they intended to conduct action research on their own in the future. The answers from all the three were 'yes.' One student researcher opined that he would solve whatever issues he had with regard to his studies with action research. He has written thus:

> If one strategy doesn't work, I can try with another one. Even if that doesn't succeed, I can go for yet another one. I can try with all the strategies I know, and after finding out which one works, I can adopt that strategy. Action research is the best solution to solving the issues.

All the three student researchers intended to do action research in the future. Their intention is to succeed in their studies.

The three themes derived from the student researchers' answers to the unstructured interview questions ascertain with the increased trend of students' assessment record. Thus, the automatic answer to aim 2 of this action research: *Investigating the outcomes of students doing their own action research* is 'successful'.

C. Journals

The third data collection tool of this action research was students' journals. The researcher referred student researcher's reflective journals in order to authenticate their experiences with the results from their assessment and interview. Student researchers specifically mentioned about their positive experiences of conducting action research on their own. One central idea consequent of the three journals was self-discovery. They reported that they were able to discover their own weaknesses and strategies, and finally solve their issues. This is in confirmation with Kemmis and McTaggart's definition of action research. They define action research as an action aimed at self-reflection and improvement (1998, p. 15). Student researchers dedicated to conduct their own action research in the future. Thus, their reflections in their journals validate their improved result in their tests and the opinions they shared during the interview.

X. CONCLUSION

The principal question of this action research was: *Can students solve their limitations of learning by doing their own action research?* The answer to this question is 'yes'. Student 1, 2 and 3 increased their scores during the post-intervention in comparison to pre-intervention. This result was further validated true with the data collected from student researchers' interview and journals. All the three data collection tools proved the success of solving their limitations of learning by doing action research on their own.

The success of this action research owed to the three student researchers' willingness to identify their weaknesses. Their unwavering interest during the course of intervention action took them to the end of discovering answers to their questions. Eventually, with their determination, they could use right strategies and solve their issues, and finally improve their scores. Their weak areas in learning English were strengthened, and this would not have been possible without conducting an action research on their own.

Finally, this action research was carried out successfully as the planned actions were implemented on time according to the timeline. Most prominently, the importance of making students do action research on their own was uncovered. The result of this action research runs in parallel with one researcher's opinion about the significance of making students do action research on their own. By doing action research on their own, students involve in the discovery of their weaknesses and strategies and "students became aware of their own learning styles" (Gündoğdu, 2019, p. 139).

Thus, teachers are recommended to make their students do action research on their own to discover their own strategies to solving their issues, and finally appreciate the importance of autonomy for self-discovery and individual development.

Limitations

The first limitation to this study is the sample size of three volunteering students. The result of this study would have been more valid to the general mass if the participants were of larger size. The other limitation is sampling method. In voluntary sampling method, it is believed that people who take part in the research tend to have similarly strong opinions compared to the rest of the population. The author could not take on a critical friend to authenticate the data. This is another limitation to this action research.

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