Fostering University Students’ Teaching Skills through Learner-centered Instruction -Effective Usage of ICT -

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1. Introduction

1.1 Practical Curriculum at University of Education

Naruto University of Education provides courses for four years in which students obtain theoretical knowledge in school education as well as practical skills in teaching. In addition to obtaining theoretical education knowledge, students practice and brush up their teaching skills during teaching practicums in the third and fourth academic years. In the previous academic year, 83.3% of the undergraduate students at this university succeeded in becoming teachers (MEXT 2018). In order to support students’ goal to be practical teachers, the university offers practical-based studies, specialty studies, and general studies in addition to the fundamental studies in the curriculum (Figure1). The goal of practical-based studies is to develop the necessary knowledge and skills for teaching in subjects such as classroom management, teaching methodology, development of practical teaching skills. Theoretical and practical subjects of school education are also taught in general studies. In this study, cases in English Education Practice and English Education Theory will be presented.

![Figure1. English Education Subjects](image)

1.2 Integration of Teaching Methodology and Development of Practical Teaching Skills

English Education Practice in practice-based studies and English Education Theory in general studies are both principal English Education subjects. English Education subjects focus on problem-
solving learning, discovery learning, and experienced learning in a collaborative learning style in which students work on group discussion, group work, and micro-teaching (Figure 2).

![Collaborative Learning](image)

*Figure 2. Collaborative Learning*

All undergraduates are expected to obtain fundamental practical skills in addition to pedagogical and professional knowledge through collaborative learning (Figure 2 & 3). After becoming proficient at fundamental skills in teaching, all undergraduate students will take part in a one-month teaching practicum at affiliate primary and secondary schools in the third and fourth years. Therefore, it is necessary for all undergraduate students to master fundamental pedagogical knowledge and teaching skills beforehand. The teaching practicum aims to give pre-service teachers authentic teaching experience.

![Practical Studies Steps](image)

*Figure 3. Practical Studies Steps*

1.3 Previous Studies on Micro-teaching and Introspection

Several studies have been done regarding microteaching and introspection. Micro-teaching was initially developed by Dwight Allen for the Stanford University Secondary Teacher Education Program in the 1960s (Allen, n.d.). Since then, many papers have been written about the effectiveness of micro-teaching in educational fields. Arsal (2014) states that microteaching had a positive impact on developing the sense of self-efficacy in teaching. Kim (2018) mentioned that micro-teaching presents advantages like self-confidence, seeing and fixing shortcomings, learning different methods and techniques. It is also stated that micro-teaching is an essential education component which gives pre-service teachers a chance to practice teaching. Danday (2019) investigated an active vs. passive microteaching lesson study, which might have a different view of micro-teaching.

Regarding the study of introspection, Kashiwazaki (2009) points out the importance of fostering fundamental skills, and meta-cognition in the process of introspection. She had a detailed set of instructions on introspection in a post micro-teaching report.
1.4 Purpose of the Study

The purpose of this case study is to investigate how to foster university students’ teaching skills through learner-centered instruction. Careful examination of students’ introspections regarding micro-teaching and ICT-based classroom observations including reflective consideration of each lesson will be reported in the results of the case study.

My hypothesis is that being engaged in careful introspection during each lesson contributes to fostering students’ teaching skills (Figure 4). Based on this hypothesis, students’ introspections regarding each lesson were collected, while learner-centered instruction in which students engaged in micro-teaching, classroom observation and peer-feedback was conducted.

Figure 4. Image of Improving Teaching Skills

2. Method

2.1 Participants and Period

In this study, cases in English Education Practice and English Education Theory were presented. This case study took place over a period of ten months from October 2018 to July 2019. The participants were four non-English major students and twenty English major students, in total 24 students. The ages ranged from 19 to 22 years old.

2.2 Procedure

In the first stage, students learned teaching methodology and basic skills in teaching English. Information and Communication Technology (ICT) was used effectively for lesson observation, micro-teaching and the prompt feedback phase.

In the second stage, the three following practices were used:

(1) ICT-based Classroom Observation
In-class observation is ideal; however, students cannot afford the time to visit local schools. Therefore, classroom observation using DVDs is the usual method. In this study, an effective usage of ICT-based observation was attempted. Using ICT, AR English on tablets and smart phones, enabled students to choose English lesson video clips from *English Education Journals* according to their preference and they were able to watch them at their own pace. It could help support students by illustrating an overall idea how to teach English lessons.

(2) Micro-teaching and Peer Feedback

Students discussed the idea of teaching plans in pairs or groups in order to cope with micro-teaching lessons. Conducting micro-teaching, students were able to engage in a near-authentic teaching environment. Additionally, students obtained peer-feedback as well as teacher’s evaluations. Microteaching lessons were recorded individually on the tablet and transferred to each student’s smartphone, which engaged and encouraged students to reflect on their practices. It is also crucial that students continually utilize “Plan-Do-Check-Act (PDCA)” in reviewing their micro-teaching lessons in order to improve their teaching skills.

(3) Introspection Phase

Students were encouraged to send their introspections about each lesson through *Moodle* (Figure 5) and through *Forms* (Figure 9). *Moodle and Forms* have different functions. Students are encouraged to discuss adding their opinions in *Moodle*, which is an open channel where all participants are able to observe and give feedback on every discussion. On the other hand, *Forms* is more like a private channel between instructor and student, in which only the instructor is able to read the student’s introspection.

2.3 Data Collection and Analysis

In order to collect detailed descriptions, the free description method was used for all the phases mentioned above. To analyze the free description of students, the KJ method was used.
3. Results and Discussion

Careful examination of students’ introspections sent through Forms and Moodle were reported in the results of this case study. The descriptive data obtained from Moodle and Forms were analyzed. The KJ method was used to classify and analyze the introspections of the students. The descriptive data was classified into three categories: ICT-based Classroom Observation and Introspection, Microteaching and Introspection, and Post Course Introspection.

3.1 ICT-based Classroom Observation and Introspection

Students chose English lesson video clips from English Education Journals (Shown in Figure 6) according to their preference, using ICT, AR on tablets and smart phones, and watched at their own pace. During ICT-based observations, students often paused the video clips and discussed them (Figure 7). The descriptive data listed below shows that students developed teaching points which would aid their ability to teach in the classroom.

< Reflections of Lesson Observations Using App>

- I did not know you could observe a model lesson through the app. So, I would like to use the AR app by myself. It is a great way to watch model lessons in order to visualize the actual English lessons. (Non-English major student’s comment)
- Through the AR app, I can observe the reactions of students taking English lessons, which is very useful. I would like to use it when conducting microteaching lessons in the near future.
- I would like to be a junior high school teacher in the future. So, I can learn the teaching skills of professional teachers through watching AR. It is very handy.

English Education Journals used for Lesson Observation

Figure 6.

Lesson Observation Using AR

Figure 7.
3.2 Micro-teaching and Introspection

During and post microteaching discussions, positive peer feedback including improvement for future lessons was conducted enthusiastically (Figure 8). In addition to in-class discussion, careful examination of microteaching was reported by each student through *Forms*. The descriptive data was classified into three sections: 1. Teaching Procedure Observations, 2. Suggestions for Teaching Plans, Blackboard Writing, and Classroom English Usage, 3. Observer Notes on the Relationship with Elementary School English Education.

![Microteaching Lesson](image)

*Figure 8. Microteaching Lesson*

<Introspection about Lesson Observations>

1. Teaching Procedure Observations
   - The lesson structure and development are well-designed. I would like to use it as a reference. (Non-English major student’s comment)
   - The instructor has to know what students have learned and haven't learned in both grammar and vocabulary, and then think about designing lessons.
   - The overall lesson was well organized, and it seemed easy for students to input new vocabulary with sentences.
   - Teaching procedure was smooth, board writing was efficient and useful, I think. The lesson was not teacher-centered and interaction between the teacher and students was observed frequently, which was great.
   - I noticed that a little bit of ingenuity could enhance the students’ understanding. When introducing the target sentence, the instructor used well-known cartoon characters for students in the sample sentences.
   - The instructor walked around and checked the students’ level of understanding. In addition, he spoke clearly when conveying the lesson.
   - The teaching procedure was clear and smooth. It was great the instructor tried to conduct the lesson all in English. (Non-English major student’s comment)
2. Suggestions for Teaching Plans, Blackboard Writing, and Classroom English Usage
   - The instructor should write on the blackboard neatly enough so that all the students can read it. They also should write the day’s goal on the blackboard to indicate clearly what the students are going to learn. The lesson goal was unclear since it wasn't written down on the blackboard.
   - The cautionary notes were clearly written on the teaching plan; it was easy to understand the teaching procedure.
   - The effective usage of ICT including PowerPoint is as important as the writing plan on the blackboard. The instructor should be careful of spelling errors.
   - The way of questioning and writing on the blackboard was very useful information for me. It was a good experience for a non-English major like me to practice a microteaching lesson. (Non-English major student’s comment)
   - It was great for the instructor to use lots of classroom English. However, he should consider the use of colored chalk. (Non-English major student’s comment)
   - I think the instructor should use classroom English more often. She used too much Japanese during the English microteaching lesson.
   - The instructor prepared a very detailed teaching procedure where she thought out the usage of classroom English and the topic procedure. I want to do that just like she did.

3. Observer Notes on the Relationship with Elementary School English Education
   - It is important for junior high school teachers to know what students learn in elementary school English lessons.
   - In order to design English lessons for seventh grade, instructors have to know what expressions students learn in elementary schools. I’m afraid that if instructors conducted the same activities that students experienced at elementary schools, their motivation toward learning English would deteriorate.
   - If instructors do not know what students have learned in elementary school lessons, there won't be a smooth transition to junior high school English. Instructors at junior high schools should develop activities which are different from those of elementary schools.

3.3 Post Course Introspection

   Students sent overall course introspections through Forms (Figure 9). The descriptive data was classified into five sections: 1. Teaching Procedure, 2. Suggestions for Teaching Goals, Blackboard Writing, and Classroom English Usage, 3. Peer Feedback, 4. Achievements, 5. The Usage of ICT and Watching Their Own Microteaching Lesson.

   <Post Micro-teaching Introspections>

1. Teaching Procedure
I was inspired by watching the microteaching lesson on AR. I wish I could conduct such a wonderful lesson. In the microteaching, I faced various issues I have to improve for my next lessons such as appropriate speed in instruction and students’ levels of understanding. Even though I have learned lots through lectures and AR, conducting actual lessons was challenging.

I have learned the importance of careful consideration of details through this teaching procedure.

When designing a lesson, instructors have to take into consideration past lesson units as well as present lesson units. It is quite important to know what students have learned previously.

2. Suggestions for Teaching Goals, Blackboard Writing, and Classroom English Usage

I noticed the importance of goal and evaluation agreement by conducting the microteaching lesson.

Making a plan for writing on the blackboard is as important as making a teaching plan, which I noticed conducting the microteaching lesson. I should make a specific plan what to write on the blackboard.

Watching my own microteaching lesson video sent to my smartphone app, I strongly felt I needed further practice conducting lessons. I also have to practice the usage of classroom English more.

The importance of feedback from classmates was also described, which seemed to encourage students to review their microteaching and improve their teaching skills in the future.

3. Peer Feedback

Through peer feedback, my classmates gave me a lot of productive advice. I will consider the points for the next lesson.

My classmates pointed out that I tended to turn my back on students while writing on the blackboard. I should go over the plan how to write on the blackboard during lessons.
I did not have any confidence during my microteaching lesson; however, my classmates shared some good points during the microteaching lesson. Therefore, I got a bit of confidence to conduct lessons since then. (Non-English major student’s comment)

I got feedback on what I should do to improve my lessons, I would like to use it for my next lesson.

4. Achievements

- Coping with the microteaching lessons was a continuous process of trial and error. I cannot say it was a perfect performance; however, I still felt a sense of accomplishment.
- I made lots of mistakes during the microteaching lesson; however, I learned lots at the same time, so it turned out to be a great experience. (Non-English major student’s comment)
- I thought I would perform better using the knowledge and skills I had obtained through lectures. However, the actual lesson did not go as planned. Reflecting on this experience, I would like to improve my teaching skills.
- I would like to make the most of my microteaching lesson experience for the Teaching Practicum in September.

5. The Usage of ICT and Watching Their Own Microteaching

- Watching my own microteaching lesson video, I noticed I spoke too softly throughout the lesson.
- As the teacher suggested, I would like to try to practice in front of a mirror watching my own manner of speaking. I'm sure I'll be very nervous when speaking in front of junior high school students during Teaching Practicum, so I will have to prepare a lot for lessons.
- Observing my own microteaching lesson is a great way to get to know what I should improve for my next lessons. I noticed I did not use appropriate classroom English.
- Observing my own microteaching lesson gave me lots of tips for my next lesson, I would like to use most of them.
- I noticed lots of points I should improve on by watching my own microteaching lesson video. I especially feel I should improve my English pronunciation. (Non-English major student’s comment)

4. Conclusion

The results the micro-teaching phase show that being immersed in authentic teaching situations and getting feedback highlighted different points of view in teaching. The participants of the microteaching lessons also wrote positive comments on how to improve their future lessons. The descriptive data regarding ITC usage (underlined parts) clearly indicate its effectiveness.
Remarkably, all students watching their microteaching video data reported positive introspection and appeared highly motivated to improve future lessons.

References


Abstract

This study is aimed to investigate how to foster university students’ teaching skills through learner-centered instruction. In the first stage, students learned teaching methodology and basic skills in teaching English. ICT was used effectively for lesson observation, micro-teaching and the prompt feedback phase. While learner-centered instruction in which students engaged in microteaching, classroom observation and peer-feedback were conducted, students’ introspections from each lesson were collected. Careful examination of students’ introspections regarding microteaching and ICT-based classroom observations was practiced with 24 students. The results show that being immersed in near-authentic teaching situations and getting feedback highlighted different points of view in teaching and a high degree of motivation for improvement from all the participants. It also implied that being engaged in careful introspection in each lesson contributed to fostering students’ teaching skills.