

Result of Teacher Training about Teaching Strategy used ICT in the Philippines

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Abstract: The purpose of this research is how a teacher who attended private teacher training in terms of supporting autonomy, supporting competence and supporting relationship begin to use ICT in the class. The Philippines extended basic education to 12 years in order to quality of basic education is improved. Department of Education in the Philippines has conducted a teacher training in order to achieve curriculum objectives. Contents of teacher training include ICT in education. However, almost teacher training focus on ICT operation. It means contents of teacher training does not include detail of how to use ICT in the class in teacher training. In addition, there is different experience which trainer in department of education use ICT in the class among region. the author had conducted a teacher training in terms of how to use ICT in the class during three weeks in August and September 2017 and a teacher training during one month in February and March 2018 in a public elementary school at division of Leyte in the Philippines. As a result of teacher training, Teacher D has obtained skill making ICT teaching materials and use them in the class by herself. In addition, Teacher D has begun to use ICT purposely in the class. However, there is unknown class part why Teacher D used ICT in the class because of lack of experience which Teacher D uses ICT in class.

Keywords: Philippines, ICT in education, using educational media by teacher, teacher training

INTRODUCTION

The Philippines extended basic education to 12 years in order to quality of basic education is improved. Department of Education in the Philippines (DepED) have conducted a teacher training in order to achieve curriculum objectives. Contents of teacher training include ICT in education (Department of Education, Philippines). However, almost teacher training focus on ICT operation. It means contents of teacher training does not include detail of how to use ICT in the class in teacher training. Furthermore, there is different experience which trainer in department of education use ICT in the class among region (Dave and Pablito 2015). Developed country have conducted teacher training focused on ICT operation. As a result of this teacher training, teachers do not use ICT in the class purposely so students cannot understand learning contents even if government introduces ICT equipment to school (Kubota and Konno 2018, Tanaka 2008)

Therefore, the author had conducted a teacher training in terms of how to use ICT in the class during three weeks in August and September 2017 and a teacher training during one month in February and March 2018 in a public elementary school at division of Leyte in the Philippines. The form of teacher training was whole training which all teacher participated teacher trainings and private training which we supported three teachers. This research

clarifies how a teacher who attended both whole training and private training begin to use ICT in the class.

LITERATURE REVIEW

Research about education in Philippines

The author reviewed 53 papers targeted the Philippines in Education Resources Information Center from 2009 to 2018. Search keywords are “Philippines and Teacher education” and “Philippines and Teacher training”. As a result of review, there is only one paper about using educational media by teacher. It means, there is few research about using ICT in the class by teacher although DepED is promoting using ICT in the class.

Research about using educational media by teacher

As the movement about educational media research in Japan, number of researches which teacher use ICT are increasing. For example, Konno, Hotta and Nakagawa (2017) clarified process what teacher have come to use tablet type device. Another example of research focused on comparison of junior teacher and senior teacher about using ICT in the class is Yagi and Hotta (2017). They clarified same level of skill about using ICT. In addition, both junior teacher and senior teacher think what students should be able use tablet

type device. On the other hand, senior teacher is different from junior teacher in that using various way of using ICT in the class. Furthermore, only senior teacher felt effect of using ICT from students' reaction.

When a teacher uses ICT in the class, a teacher have to think why using ICT in the class and explores teaching strategy used ICT. According to Koehler and Mishra (2009), there is no "one best way" to integrate technology into curriculum. Furthermore, teachers have to integrate new technology with exiting pedagogical knowledge and content knowledge, and have to reconstruct their knowledge and skill by themselves in order to teach effectively for educational objective. DepEd has promoted using ICT in the class. On the other hand, DepED does not show detail of teaching strategy used ICT. So, there is a possibility that teachers in the Philippines do no use ICT in the class purposely. Thus, it is important that teacher training why using ICT in the class and detail of teaching strategy used ICT.

Research about method of teacher training

Until now, wholesale teacher trainings are conducted if teachers do not have enough knowledge and skill in field of International educational development. For example, Tomita and Muta (2008) had conducted teacher training for science and mathematics teacher in elementary school and junior high school since February 2001 to June 2002. As a result of teacher training, teacher's teaching strategy and behavior changed. In contrast to this kind of research, Sawamura (2008) stated that teachers could not developed skill autonomy.

It is important that focusing on teacher's psychology in order to change behavior autonomy. According to Sayanagi (2017), it is difficult that a beneficiary recognizes value about changing behavior because training contents is new things for beneficiary and feels a sense of incongruity in program about developing skill. In educational side, a teacher does not almost effect immediately even if a teacher change behavior. So, Sayanagi (2017) stated that it needs not only supporting autonomy but also supporting competence which a beneficiary can recognize value about changing behavior. Furthermore, supporting relationship between a beneficiary and a trainer is important in order to show effect both supporting autonomy and supporting competence. Because there is a possibility that a beneficiary does not accept trainer's advice. It is important that opportunity interacted frequently between a beneficiary and a trainer.

This kind of psychological approach for each beneficiary is difficult in wholesale teacher training So, this research conducted private teacher training about detail of teaching strategy used ICT in terms of supporting autonomy, supporting competence and supporting relationship, and clarified result of it.

RESEARCH DESIGN

The purpose of this research

The purpose of this research is how a teacher who attended private teacher training in terms of supporting autonomy, supporting competence and supporting relationship begin to use ICT in the class.

The object of practice

The object of practice was a public elementary school at division of Leyte in the Philippines. The reason why was that DepED in Leyte have conducted a only teacher training about ICT operation. It means that DepED in Leyte have not conducted teacher training how a teacher use ICT in the class. In addition, this elementary school is a model school in this division. The author hoped that result of teacher training in this public school will spread other schools in this division, so the author chose this public school.

Design for teacher training

The author and trainers who belonged to Kansai University have conducted a teacher training during three weeks in August and September 2017 (Training 1) and a teacher training during one month in February and March 2018 (Training 2) (Table 1). In Training 1, we had observed class and made a movie teaching material collaborated with a teacher in a weekday. In Training 2, we conducted five kinds of teacher trainings for 30 minutes to a hour after school. In addition, we had observed class in a weekday. Furthermore, we had made an ICT teaching material collaborated with a teacher who is in charge of lesson study.

The form of teacher training was whole training which all teacher participated teacher trainings and private training which we supported three teachers.

We had conducted whole training in Training 1. We made training contents based on result of questionnaire and interview about teachers' needs and problem analysis of class observation. As a result of teachers' needs, teachers wanted to learn how to use presentation software (PPT) and editing movie software. As a result of problem in class, teachers could not use ICT in the class purposely. In contrast, we made three levels of teacher training about PPT and two levels of teacher training about movie. The reason way was that trainer does not control which teachers participate teacher training, but teachers can choose which teacher training participate. It means supporting autonomy.

We had conducted private training in both Training 1 and Training 2. In Training 1, we made a movie teaching material collaborated with Teacher D, and made Teacher D use it in her class. We made a movie teaching material to achieve her vision of class used ICT, and taught how to use it. So, Teacher D can recognize why she use ICT in the class. It means supporting competence. In addition, trainer interact

Category	Teacher training 1				Teacher training 2					
	Music 1		Music 2		Physical education 1		Health 1		Music 3	
	Count	Time	Count	Time	Count	Time	Count	Time	Count	Time
Total time	4:17		2:45		22:52		38:20		59:30	
Showing learning contents	0	0:00	0	0:00	8	17:28	4	10:16	3	2:09
Explaining learning contents easily	4	3:31	1	2:17	0	0:00	3	12:14	0	0:00
Showing exercise	3	0:37	2	0:28	0	0:00	2	7:42	12	23:19
Showing exercise for group work	0	0:00	0	0:00	0	0:00	0	0:00	0	0:00
Showing assignment	0	0:00	0	0:00	0	0:00	1	4:22	0	0:00
Showing answer	0	0:00	0	0:00	0	0:00	0	0:00	0	0:00
Playing music for dance and sing	0	0:00	0	0:00	3	5:24	0	0:00	2	0:50
Relfecting on contents of movie teaching material	0	0:00	0	0:00	0	0:00	1	3:46	0	0:00
Showing musical scale	1	0:09	0	0:00	0	0:00	0	0:00	10	19:45
Showing page of textbook	0	0:00	0	0:00	0	0:00	0	0:00	1	1:34
Unknown	0	0:00	0	0:00	0	0:00	0	0:00	2	11:53

Table 3. categories about the purpose of using ICT in class

with teacher in class observation to construct relationship with a teacher. It means supporting relationship.

In Training 2, we had conducted class observation and lesson study. In class observation, we had suggested how to use ICT in order to achieve teacher's ideal class and discuss it with a teacher. When a teacher used ICT in the class, we suggested improving points how a teacher use ICT. In lesson study, we made a teacher choose unit, and discussed ICT teaching material in order to achieve objective of unit. Then, a teacher made ICT teaching material by herself supported from us, and use it in lesson study.

RESEARCH METHOD

The object of analyzing data is five Teacher D's classes who is attended whole training and private training (Table 3).

Table 2. The object of data analysis of Teacher D's classes

Number	Period	Grade	Subject	Content	ICT
Music 1	Training 1	5	Music	Music scale	Movie
Music 2		5	Music	Music scale	Movie
PE 1	Training 2	5	Physical education	Dance	PPT
Health 2		5	Health	First aid	Movie PPT
Music 3		5	Music	Harmony	PPT

There is research method analyzed teacher's remark and behavior in class to clarify how much teacher use educational media in class. For example, Ishida (2016) analyzed teacher's remark, who is junior high school model teacher, in critical incident to clarify tacit knowledge. In addition, this research method is used to clarify teaching skill used ICT in the class too. For example, Yagisawa, Satou and Horita (2018) analyzed teacher's remark and behavior in a elementary school introduced one-to-one tablet type device in order to clarify teaching skill and knowledge. However, there is no research clarified Pilipino teacher's teaching skill and knowledge used ICT in the class. Thus, the author analyzed teacher's remark and behavior in order to clarify how much teacher in the Philippines can use ICT in the class.

The procedure of actual analysis was that the author choose parts which Teacher D use ICT in class, and ① the author wrote out ICT operation, purpose of using ICT and interaction between a teacher and students. ② the author made 11 categories about the purpose of using ICT in class (table 3). ③ the author compared categories among five classes in order to analyze how Teacher D used ICT in class.

RESULT AND DISCUSSION

As a result of analyzing class analysis, in training 1, trainers operated ICT and solve technical problem in class. In contrast to training 1, Teacher D did them by herself in training 2. In addition, trainers asked Teacher D needs about a movie teaching material, and made it in training 1. In contrast to training 1, Teacher D downloaded movie teaching materials from internet and made PPT teaching materials by herself. Then, Teacher D used them in class. Next, classifying utilization of movie teaching materials and utilization of PPT teaching materials in order to show detail of change about using ICT in class. Anyway, [] is category about way of using ICT in class.

Utilization of movie teaching materials

In using Music 1 and Music 2 used movie teaching materials, total time used ICT in class under 20% in whole class.

The purpose of using a movie teaching material in class are two things. One is that Teacher D used ICT in order to [Explaining learning contents easily]. Total time using ICT is 3:31 in Music 1 and 2:17 in Music 2. One example of using ICT is that Teacher used a movie teaching material in order to connect between a musical scale, keyboard of a piano and actual tone in introduction. In addition, Teacher used it in order to explain concept of harmony. Then, Teacher D taught detail of concept of harmony using a electronic piano and a blackboard in development. Another one is that Teacher D used ICT in order to [Showing exercise]. Because the movie teaching material used in Music 1 and Music 2 included exercise about a music scale. Kubota and Konno (2018) suggest that a teacher use ICT in order to explain learning contents easily to students as a perspective of using

ICT in daily class. Furthermore, DepED suggests a same opinion with Kubota and Konno (2018). Therefore, this is one of the good result which Teacher began to using ICT in order to explain learning contents easily.

On the other hand, using movie teaching materials is different between training 1 and training 2. In training 1, Teacher D used a movie teaching material in introduction. Then, Teacher D explained learning contents. In contrast to training 1, Teacher D played three movie teaching material after explaining learning contents. Students lost concentration, and did not watch movie teaching materials. The cause of this difference is that trainer made a movie material with teacher D and share how to use it in training 1. In contrast to train 1, Teacher D downloaded movie materials from internet, and used them in training 2. Teacher D have not used a movie teaching material before training 1. This is one of the good result which Teacher , who have not use a movie teaching material, begun to use movie teaching materials in class. However, Teacher D did not use movie teaching material effectively by herself.

Utilization of PPT teaching materials

In using Physical education 1, Health and Music 3 used PPT teaching materials, total time used ICT in class over 73% in whole class. Maximum time is 97%. Total time using a PPT teaching materials is longer than total time using a movie teaching material.

Teacher D used a PPT teaching material in order to **【Showing learning contents】**, **【Showing exercise】** and **【Showing music scale】**, and Teacher D interacted with students using it. In terms of **【Showing learning contents】**, Teacher D shew kinds of dance steps in a PPT teaching material in Physical education 1. Then, Teacher D asked students about each dance step. Teacher D made students demonstrate each step in order to teach each step. In terms of **【Showing exercise】**, it was the longest time in Music 3. For example, Teacher gave a question about tone and harmony shown by a PPT teaching material. In terms of **【Showing music scale】**, Teacher D played the electronic piano and shew music scale at the same time. it means that students could watch music scale while they sing. According to Hotta, Takahashi, Yamada and Yagi (2013), what a teacher uses ICT in order to show information is important. Furthermore, there is problem about learning environment in the Philippines. For example, students is difficult to watch sentences and pictures on blackboard because a choke and blackboard are low quality. In addition, a teacher could not distribute a handout because a paper is expensive. Then, some students do not have a textbook. So, these

ulations is suitable learning environment in the Philippines.

On the other hand, there is **【Unknown】**class part why teacher D use a PPT teaching material. In Music 3, Teacher D prepared animation in a PPT teaching material for checking answer. However, Teacher D wrote down an answer to a question on the blackboard. Then, Techer D skipped that slide. The cause of this is lack of experience which Teacher D uses ICT in class.

CONCLUSION

In this research, as a result of private training in terms of supporting autonomy, supporting competence and supporting relationship, Teacher D has obtained skill making ICT teaching materials and use them in the class by herself. In addition, Teacher D has begun to use ICT purposely in the class. However, there is unknown class part why Teacher D used ICT in the class because of lack of experience which Teacher D uses ICT in class.

This research clarified result of only one case. In this further plan, the author will compare with teachers who attended whole training and teachers who attended private training. Then, the author will clarify common points and different points.

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