The Problem of Collaboration with Teachers from Perspective of ICT Support Staff

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Abstract

The purpose of this study is to clarify what difficulties ICT support staff face and the factors behind these difficulties, focusing on the collaboration between teachers and ICT support staff. In this study, the author personally entered a school as an ICT support staff in City A and conducted a participant observation. As a result, the author found difficulties in "Few requests of ICT support from teachers" and "Making active communication from ICT support staff". Following Three factors were considered related to "Few requests of ICT support from teachers".

1. Teacher's lack of image which utilize ICT in the class
2. Teachers' lack of understanding of ICT support staff's work
3. Limited activity time of ICT support staff

In addition, Following Three factors were considered related to "Making active communication from ICT support staff".

1. Lack of skills as an ICT support staff
2. Lack of understanding of the teacher community
3. Lack of opportunities for skill development of ICT support staff

Keywords: ICT support staff, ICT support staff, collaboration, qualitative methods

Introduction

In recent years, Japanese teachers have been faced with the problem of long working hours. Therefore, the Japanese government has stated that to improve the busyness of teachers, it is important that collaboration between teachers and professional personnel. In addition, the informatization of education is advancing in Japan with the Global Innovation Gateway for All (GIGA) School Concept and COVID19. According to the Ministry of Education, Culture, Sports, Science and Technology (MEXT) (2021), the results of a survey on the actual status of informatization of education in schools in 2020 (summary) show that the environment for one-to-one computer is rapidly improving in 2021. It is important to create an environment of one-to-one computer to practice ICT-based education. However, it can be assumed that maintaining and managing dozens to hundreds of computers, preparing classes, and preparing teaching materials will place an additional burden on busy teachers. For these reasons, to practice education using ICT including one-to-one computer in Japanese schools, it is important to collaborate with ICT support staff who assist teachers in using ICT. Previous studies on ICT support staff have done the following.

In MEXT's (2018) study, examples of activities of ICT support staff in cities that had introduced the system earlier were organized and analyzed to organize the respective duties of teachers and ICT support staff. As a result, the duties of ICT support staff were classified into four categories: class support, schoolwork support, environmental maintenance, and in-school training [Table 1]. In addition, by organizing the work content, the skills required for the work of ICT support staff were clarified.

Sumimura & Fujimura (2019) conducted an interview-based survey of ICT support staff and school

administrators and teachers in charge of information, as MEXT's (2018) study clarified the tasks of ICT support staff but was insufficient in terms of what kind of support tasks teachers desired. It became clear that there were significant differences between the support tasks of ICT support staff and the support tasks desired by teachers, and in particular, that support for use in improving classes and school management was important.

[Table 1] Work of ICT support staff

Classification	work	
Class support	Support for lesson planning	Support for school events, etc.
	Creation of teaching materials	Support for trouble
	Preparation of ICT equipment	Clean up ICT equipment
	Maintenance of ICT equipment	Creation of examples of ICT equipment utilization
	Support for operation	Grasping the status of ICT equipment utilization
Schoolwork support	Operational support for academic records management	Operational support for information dissemination to homes and communities
	Operational support for attendance management	Operational support for information sharing among faculty and staff
	Operation support for grade management	
	Operational support for time and attendance management, facilities management, and service management	
	Operational support for the preparation of notification sheets and instructional records	
Environmental maintenance	Daily maintenance support	Support for creating operational rules
	Support for trouble	Support for creation of security policies
	Annual update	Support for ICT equipment development planning
	Software Update	
In-school training	Support for planning in-school training	Conducting in-school training
	Preparation for in-school training	Support for conducting in-school training

The study by Ezaki and Hazeyama (2015) aimed to propose a class curriculum for the training of ICT supporters and educational information coordinators, taking advantage of the characteristics of teacher training colleges. Therefore, they compared and examined the contents of the class curriculum with those of the curriculum for training ICT support staff and educational information coordinators, and proposed revisions to the class curriculum based on these.

The Oe (2020) study aims to improve the training of ICT support staff to improve the quality of ICT support staff. Using questionnaires, rubrics, and activity reports, they analyzed how the self-evaluation and behavior of ICT support staff changed when training was conducted for nine ICT support staff in local government city A by a person familiar with the school site in that area, called the chief guidance officer. The results showed that the ICT support staff's understanding of the training involving the chief instructor was high, and that the chief instructor's specific guidance was effective as the reason for the high level of understanding.

In summary, previous studies on ICT support staff have investigated the role, necessary skills, and training methods of ICT support staff. However, there are still few research that uses qualitative methods to decipher the collaborative process and clarify the facts of the parties' actions, feelings, and communication.

Therefore, the purpose of this study is to clarify what difficulties ICT support staff face and the factors behind these difficulties, focusing on the collaboration between teachers and ICT support staff.

Methods

In this paper, the author personally entered a school field as an ICT support staff in City A and conducted a participant observation. The period is for three months from January to March 2022. The details of the field are in Table 2.

[Table 2] The details of the field

| Field	Frequency of Visits	Total number of visits
N junior high school in s city	Once a week	11
ICT support staff only meeting	Once a month	3
Meetings between teachers, ICT support staff and the Board of Education	-	1
Meeting of the Board of Education and ICT Support Staff	-	1

Results

As a result of the analysis based on the participation observation, the author entered a junior high school as an ICT support staff for three months, but received few requests for support from teachers, although there was some work to download digital textbooks. The author spent a lot of time worrying in the staff room, saying that she wanted to provide support but did not know what to do. The reasons of "Few requests of ICT support from teachers" are summarized in Figure 1.
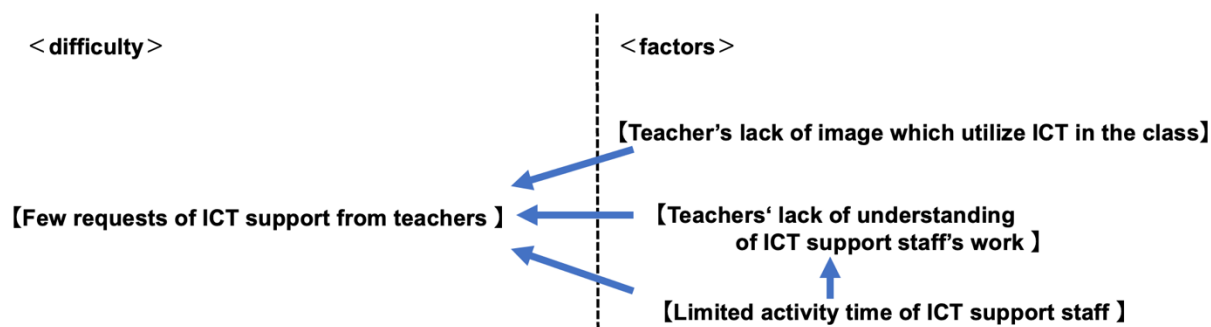
[Figure 1] Factors of "Few requests of ICT support from teachers"

One of the reasons why there were few requests for support was the need for teachers to have an image of how they would like to utilize ICT in their classes. In the schools visited, the use of GIGA terminals was left to the individual teachers, and the teachers who requested support had an image of how they wanted to use ICT in the classroom. Therefore, we considered that "Teacher's lack of image which utilize ICT in the class" was one of the factors. Next, some teachers said that even if they needed support from ICT support staff, they did not know what kind of work ICT support staff could do and were reluctant to make a request. Thus, we considered that "Teachers' lack of understanding of ICT support staff's work" was one of the factors. In addition, it is necessary to communicate with teachers to know what kind of work they can do. However, in this case, the teachers who could communicate were biased because they came in on certain days of the week and during certain hours, and the number of teachers in the staff room was limited. In addition, the limited working hours of the ICT support staff may have meant that they were not working during the times when teachers wanted their support, and we considered the "Limited activity time of ICT support staff" to be a factor.

Next, the author attempted to actively communicate with the faculty members myself but found it difficult. The factors are summarized in Figure 2.
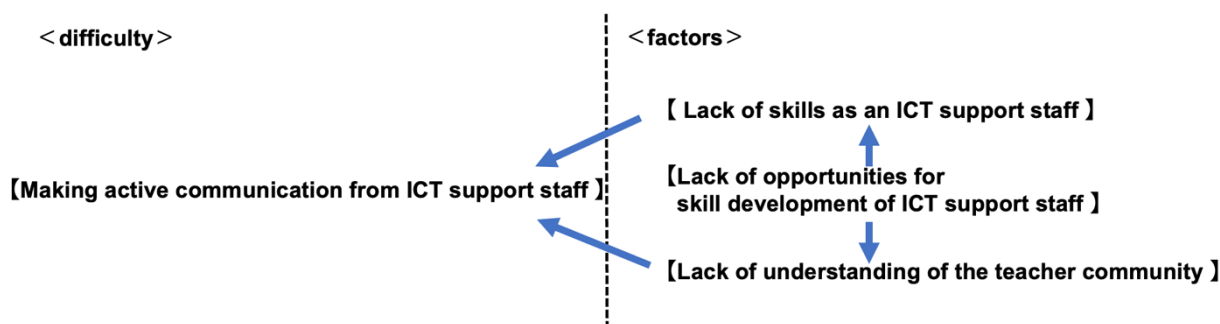
[Figure 2] Factors of "Making active communication from ICT support staff"

  ICT support staff need both pedagogical knowledge and ICT skills to make suggestions to teachers on how best to use tablets in the classroom. We consider that "lack of skills as an ICT support staff" is one factor because they cannot make the best suggestions to teachers. Secondly, there was a situation where the ICT support staff did not know when to approach the teachers when I entered the school. We consider that one factor is "Lack of understanding of the teacher community". And during the period when I worked as an ICT support staff, I felt that the only way to solve the above factors was to solve them by myself, especially "Lack of understanding of the teacher community" was difficult to solve by myself. Based on this, we consider that one of the factors is "Lack of opportunities for skill development of ICT support staff" such as creating lessons combining pedagogical knowledge and ICT skills and communicating with teachers.

Discussion

  This study is an analysis of the author's participant observation. To further understand the actual situation in the field, it is necessary to clarify what difficulties other ICT support staffs were facing and the factors contributing to these difficulties. In the future, semi-structured interviews will be conducted with two persons who were active as ICT support staff in A city.

References

Ezaki, A., & Hazeyama, A. (2015). Proposal of a Curriculum for Training of ICT Support Staff and Informatization Technology Coordinator for Education in Tokyo Gakugei University. *Academic Information Committee, Tokyo Gakugei University, 67*, 205-212

JAPET (2018). Survey and research for training and securing ICT support staff. Retrieved March 23. https://www.mext.go.jp/content/1398432_4.pdf

MEXT (2021). Results of the Survey on the Actual State of Informatization of Education in Schools in 2020 (Summary). Retrieved June 19.https://www.mext.go.jp/a_menu/shotou/zyouhou/detail/mext_01635.html

NIER (2019), OECD TAILS 2018 Report - Teachers and Principals Who Keep Learning – Summary, Retrieved June 19,https://www.nier.go.jp/kokusai/talis/pdf/talis2018_summary.pdf

Shimoda, J., Murase, K., & Kato, N. (2013) A study on the role of ICT support staff in schools: A proposal of the role of ICT support staff based on the perspective of teacher culture. *Proceedings of Annual Conference of JSEI, 29*, 302-303

Sumimura, N., & Fujimura, Y. (2019) Research on the Difference between the Current Situation of Support Works by ICT Supporters and Support Works Requested Teachers. *Research report of JET Conferences,19*(3), 143-150.