

# The Application of SECI Method as a Learning Innovations in Rural Areas

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## ABSTRAK

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In various regions, educators always expect to be able to run education well, which complete facilities support. However, this expectation is not always fulfilled, especially in schools in the interior both Indonesia and Thailand. Learning in rural areas is always constrained by the lack of facilities owned, causing the material not to be delivered properly. The purpose of this study was to reveal how learning in rural areas applied the SECI method. There are many learning resources from the surrounding nature focusing on the activeness of students and giving rewards. The results of this study show that there is optimism for good learning in the interior even though there are limited existing facilities by innovating to utilize learning resources from around the school that is easy to obtain.

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## Introduction

A teacher must be ready for all the conditions faced in the learning process activities in the classroom. One of the most basic tasks of the teacher is to make students know from not knowing, providing explanations of learning materials that have been set based on the applicable curriculum. However, it will be challenging for teachers who teach in rural areas

with various limitations [1]. But it also has its advantages of teaching in rural areas. The benefit when teaching is that students calmly follow the learning that takes place, and the teacher will efficiently manage and master the class because of the small number of students [2]. With a small number of students, teachers will better understand the characteristics of students and which students already understand and do not understand the material that has been delivered. In addition, another good thing is that communication between students and teachers will run well to create closeness between teachers and students, which facilitates the delivery of material when in the learning process [3]. Teachers must be creative, professional, and fun by positioning themselves as parents full of affection for their students and becoming friends, a place to complain and express feelings for students [4]. When classroom learning is created good communication between teachers and students, fun, joyful learning will be formed so that students are not afraid when giving opinions openly. Of course, education will run effectively.

Some of the challenges faced when teaching in rural areas include the lack of facilities that support the learning process. Such as a microscope which is used to help the practicum process in science lessons when you want to observe chloroplasts on the leaves and the low enthusiasm for learning students in participating in learning. A teacher must be creative to use learning material and media from around the school [5]. The creativity presented by the teacher will have implications for optimal learning outcomes. Teacher creativity in learning can affect things related to education. One of the effective learning strategies is the SECI model [6][7]. This study aims to explain the application of the SECI model in learning in schools located in rural areas in Indonesia and Thailand.

## **Method**

This research is descriptive and qualitative based on the author's experience as a teacher in an inland school. The primary source of data is based on teacher (as researcher) experience and secondary data in the form of documents in the school. Data is processed by reducing and grouping based on certain themes. The learning model that is the focus to be studied is the SECI method. This research is conducted at a junior school level.

## **Result and Discussion**

Several learning strategies can be done when teaching in rural areas with various limitations—applying this good strategy so that the transfer of knowledge goes well and students understand the material. Utilizing the surrounding environment as a learning material is one that can be done when teaching in rural areas [2]. Using the surrounding environment is one way to optimize the achievement of results in the learning process because utilizing the environment around learning will become more meaningful and easily found in everyday life [1]. Various subjects can be learned from the environment around the school,

such as social sciences, natural sciences, languages, arts, natural skills, and others. For example, science lessons will conduct a practicum identifying acid bases. With the limitations of laboratory equipment, students can locate acid-base compounds using natural ingredients in the environment, such as turmeric, hibiscus, red spinach, and other natural ingredients. When the school uses the environment in the teaching and learning process, it will enrich the teaching material and clarify the principles and concepts studied in the field of study. Learning in an environment provides a significant opportunity for students to improve their learning outcomes. In general, learning by using the environment can increase students' learning motivation [1]. Knowing that utilizes the environment makes learners learn to be more meaningful because they are faced with an actual event and situation that they often encounter in real terms in the natural environment.

The use of learning models is constructive in the learning process so that the material can be conveyed properly. One model that can be used is the SECI Method. The SECI (Socialization, Externalization, Combination, and Internalization) method is a model that focuses on the activeness of students through group learning [7]. The knowledge sharing model is known as the SECI model as a continuous process in creating knowledge. SECI is one of the Knowledge Management System (KMS) methods or knowledge management that uses four knowledge transfer processes [8]. KMS is a system that can help to collect, manage and distribute knowledge. There are four reasons for the application for SECI [6][9].

Socialization is the process of transferring knowledge from one individual to another or the environment directly. This stage of socialization can be more effective if scheduling is made for the knowledge transfer process such as training, discussions, meetings, or field activities. Externalization is the process of translating experience, instinct, or analytical skills into more tangible forms such as reports, writings, books, digital data, concepts, or prototypes.

The combination is the process of creating, collecting, and managing actualized knowledge such as reports, writings, books, research results, or questionnaires into a systematically compiled medium (knowledge base). At this stage, a method of classifying is required to form relationships between documents (taxonomy).

Internalization is the process of absorbing knowledge from various literature and trying it out in everyday life, often called learning-by-doing. This process results in the formation of experiences, ideas, or concepts from the experiments carried out. The stage of forming new knowledge is under the concept of CBR (case base reasoning) where the solution to the new case will be developed when we use the solution of several previous issues.

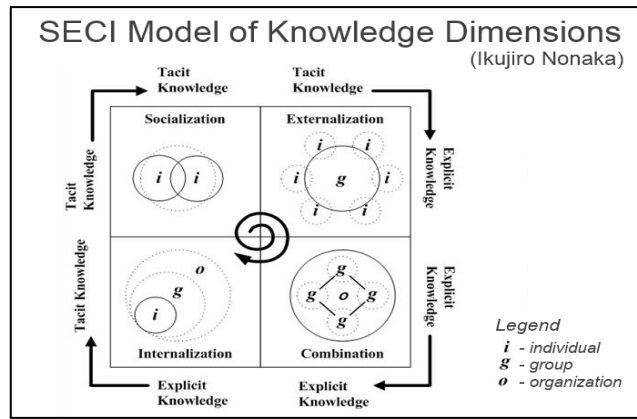


Figure 1. Model Seci Scheme

An example of applying the SECI method in the classroom to increase student activity begins with dividing students into groups. Each group consists of 4-5 people. Then the group is divided into several groups. Each group consists of 2-3 people. They are followed by the teacher's explanation of the life-length learning model and the stages that students must carry out. Before entering the initial stage of the life model, all students are asked to read the material they are studying, then enter the initial stage of the SECI model.



Figure 2. SECI Method Implementation

In the socialization session, the group discusses or communicates the results of the understanding they read on the material. The goal is to transfer knowledge from each student to get an experience of the material they are studying. Meanwhile, in externalization, students unite their understanding of the material of each group in one group. A combination is a stage where each group appoints a representative to form a new group which is a combination of each group representative. At this stage, the new group discusses understanding the material they brought from the previous group. In this stage, the new group is given the freedom to unite their understanding in the form of writing, concepts, designs, map mapping, and others. This stage aims to get an experience of the material they are studying. If you agree on the understanding or concept of the material learned, return to the previous group. Internalization

is carried out through representatives of each new group explaining the results of understanding the material from the discussion to the old group. In the end, the group chose one member to demonstrate the material understood in front of the class.

In the application of this SECI method, developing learning motivation is very important. Increasing the enthusiasm for learning of students in rural areas is not easy. The absence of competition between learners causes them sometimes to learn only an obligation that must be done without seeing results [10][11]. It is based on several factors. The fundamental aspect is parental support [10]. Living in the experience of the majority of parents of students are farmers whose daily lives are farming to manage the garden to carry out life. The lack of education from parents leads to a slight indifference to their child's education that does not provide direct guidance about their child's education. Another factor is that divorce between parents causes the child always to be the primary victim. Not a few were found in the experience of divorce, which caused children's education to be disrupted in contrast to children who received instruction in more developed areas and even in the city. With facilities and information that is easier to obtain, it is one of the factors that children are more enthusiastic about carrying out education at school [12][13]. For example, the number of tutoring places available makes children compete to participate in tutoring outside to be younger when they get learning at school. The thing that can be done to grow and encourage students' learning in rural areas is to give rewards as a motivation tool. Rewards are gifts, service providers, and educational tools given to students who have achieved good achievements [14]. Prizes are not always those of high value, rewards can be done by providing additional value for learners who get high scores compared to their peers, flattery, and applause. Another reward is giving a specific gift so that students become more active, for example, giving stationery or other items [15].

Rewards in the application of SECI can reinforce students and can motivate the spirit of learning because they feel valued for the successes that have been achieved[8]. Rewards are raised to motivate a person because there is an assumption that by giving gifts for the results of their work, they will work more optimally [16]. Rewards trigger students to compete and motivate students to grow and develop optimally. Things that need to be considered in giving rewards are that giving rewards to students must be educational. Teachers must know students' character in giving gifts. The gifts given do not cause envy in other students.

## **Conclusion**

In learning in schools that are in the interior, teachers need to be creative in utilizing various learning resources. Learning resources from the environment can be authentic when the teacher can relate the material to real problems. One of the effective methods in this learning is the SECI method. An essential aspect in the application of this method is the

motivation and activeness of education that needs to be maintained during the learning process. This method, based on experience, can also be applied to other subjects. The utilization of various types of learning resources that exist can support the successful application of this method.

### Conflict of Interest

The authors stated there was no conflict of interest in the study.

### References

- [1] A. Yarrow, R. Ballantyne, B. Hansford, P. Herschell, and J. Millwater, "Teaching in rural and remote schools: A literature review," *Teaching and Teacher Education*, vol. 15, no. 1, pp. 1–13, 1999.
- [2] R. Greenough and S. R. Nelson, "Recognizing the variety of rural schools," *Peabody Journal of Education*, vol. 90, no. 2, pp. 322–332, 2015.
- [3] B. Handal, K. Watson, P. Petocz, and M. Maher, "Choosing to teach in rural and remote schools: The zone of free movement," *Education Research and Perspectives*, vol. 45, pp. 1–32, 2018.
- [4] E. Kormos and K. Wisdom, "Rural schools and the digital divide: Technology in the learning experience," *Theory & Practice in Rural Education*, vol. 11, no. 1, 2021.
- [5] H. I. Yildirim, "The effect of using out-of-school learning environments in science teaching on motivation for learning science," *Participatory Educational Research*, vol. 7, no. 1, pp. 143–161, 2020.
- [6] A. Prasetya and K. Taroreh, "The Implementation of Socialization, Externalization, Combination, and Internalization (SECI) Through EDMODO Application to Improve Student Group's Learning Outcomes," in *1st International Conference on Education Innovation (ICEI 2017)*, 2018, pp. 5–8.
- [7] N. Songkram and S. Chootongchai, "Effects of pedagogy and information technology utilization on innovation creation by SECI model," *Education and Information Technologies*, vol. 25, no. 5, pp. 4297–4315, 2020.
- [8] N. B. Mendoza, E. C. K. Cheng, and Z. Yan, "Assessing teachers' collaborative lesson planning practices: Instrument development and validation using the SECI knowledge-creation model," *Studies in Educational Evaluation*, vol. 73, p. 101139, 2022.
- [9] Z. Alimuddin, J. H. Tjakraatmadja, A. Ghazali, and H. Ginting, "Using Seci To Improve Teachers' Pedagogical Content Knowledge," *Electronic Journal of Knowledge Management*, vol. 19, no. 1, pp. 1–14, 2021.
- [10] V. D. Yekti Irawan and O. Usman, "The Influence of Parent's Attention, Reward Giving, and Learning Facilities on Students Learning Motivation," *Reward Giving, and Learning Facilities on Students Learning Motivation (January 15, 2021)*, 2021.
- [11] Z. Dörnyei and C. Muir, "Creating a motivating classroom environment," *Second handbook of English language teaching*, pp. 719–736, 2019.
- [12] Y. D. Puspitarini and M. Hanif, "Using Learning Media to Increase Learning Motivation in Elementary School.," *Anatolian Journal of Education*, vol. 4, no. 2, pp. 53–60, 2019.
- [13] Z. Jing, "Research on the Influence of Invisible Knowledge Learning in Online Learning on Students' Entrepreneurial Orientation," *International Journal of Emerging Technologies in Learning (ijET)*, vol. 17, no. 2, pp. 209–222, 2022.
- [14] Y. Wang, Y. Hu, F. Wu, and Y. Chen, "Automatic Reward Design via Learning Motivation-Consistent Intrinsic Rewards," *arXiv preprint arXiv:2207.14722*, 2022.

- [15] T. C. Dumitru, "Motivation and its challenges to learning," *Studia Universitatis Moldaviae (Seria Științe ale Educației)*, vol. 149, no. 9, pp. 43–48, 2021.
- [16] J. A. Tolero and J. S. Echaure, "The Relationship of Learning Motivation, Reward and Achievement in Science of Secondary Students in The District of Botolan," *International Journal of Multidisciplinary: Applied Business and Education Research*, vol. 2, no. 9, pp. 712–722, 2021.

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