

Improvement of Facilitation and Management Skills by Whole Systems Approach

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ABSTRACT

The whole systems approach (WSA) is a generic term for varieties of methods such as Open Space Technology, Appreciative Inquiry, World Café and so on, which are commonly based on dialogue and attach great importance to communication among all stakeholders. It is widely introduced in the business scene for the purpose of organization reform, making innovative team and so on. The WSA has been introduced to reconsider the role of teacher and to introduce the rational educational policy intended to the PBL classes in NIT, Tsuruoka college. For this purpose, we held a workshop for the teachers in charge of the PBL classes. Through the workshop, the teachers could learn the essence of the WSA, focusing on “Being” aspect of facilitators and teachers. In the next step, they try to introduce its know-how in the classes. This activity apparently improves the teacher’s approach to the classes and quality of communications among teachers and students.

KEYWORDS

Whole systems approach, Dialogue, Faculty Development, Standards: 9, 10

INTRODUCTION

One of central topics in the C-D-I-O implementation in the higher education would be a change of roles expected to teachers and students (Kontio, 2015) (Penttila & Kontio, 2016), which is closely related to CDIO standards 9 and 10. To realize the education with the keywords such as independence, innovation and active learning, only the system reform is insufficient, and the role of teachers should also be reformed well. Especially, what is important for “Being” a teacher in the class would be a critical problem rather than “How To” teach in the class. Since Japan is one of countries which put emphasis on hierarchical relationship in the society, surely including school, the shift from the teaching-based lecture is not so straightforward. Even if the PBL-typed class is introduced, there is no practical improvement in the learning culture if the teachers don’t understand the problematic points of their attitude and the way of communication or instruction. This is not the problem only in the PBL class, but also the problem in ordinary lectures. The teachers’ attitude with the full of themselves implicitly restrict the diversity of thinking of the students and limit the chance of important feedback from the students.

In National Institute of Technology, Tsuruoka College (NITTC), to reconsider the role of teacher and to introduce the rational educational policy (intended to PBL-typed class), the whole systems approach (Adams & Bill Adams, 2000) (Holman, Devane & Cady, 2007) has been introduced. The whole systems approach (WSA) is a generic term for varieties of methods such as Open Space Technology, Appreciative Inquiry, World Café and so on, which are commonly based on dialogue and attaches great importance to communication among all stakeholders. This approach is closely related to ideas of the Theory U (Scharmer, 2016) and the Learning Organization (Senge, 1990).

WHY DO WE INTRODUCE THE WHOLE SYSTEMS APPROACH?

“What the student does is actually more important in determining what is learned than what the teacher does.” (Shuell, 1986) (Murphy & Kontio, 2018) This sentence plainly speaks what is important to foster the active learners, and implicitly describes importance of what is in demand to “be” a teacher, while not a few teachers focus on only “how to” introduce the active learning. Thus, one of important things for the learning culture improvement from teacher sides are become aware of above “be” aspect. Also, since the modern engineering scene shows faster progress than ever before and the required skills for product/service development become mutually connected and complex, there could be more than one solution for a problem in many cases, and we need to seek an appropriate solution depending on the situation, and continuous feedback and refinement action are important. The WSA can give a strategy to these problems, by focusing on the collaborative leadership, the collaborative and sustainable improvement of learning cultures and programs, sharing the commitment and outcomes. Especially, the problems in the modern society are not a jigsaw puzzle type in many cases, but the Rubik’s cube type, which means one solution for an aspect can cause a problem in different aspect. Then, the mutual and collaborative communications among students is important than the teacher’s teaching-based guidance.

As mentioned before, the WSA based on dialogue and attaches great importance to communication among all stakeholders. Then, in the activities based on the WSA, all the attendees work under an equal relationship, which is important to realize the more stimulating and effective interaction between teachers and students, being expected to lead the refinement of the class contents and flexible operating of the class.

STRATEGY FOR THE SPREAD OF THE WHOLE SYSTEMS APPROACH

To effectively introduce the WSA, at first, we concentrated to make a core team in our college. For this purpose, we had a workshop for the core teachers to take charge in the PBL classes and also for management level staffs such as (vice-)president. Our expectation in the workshop was to understand the importance of the WSA to improve our classes, and to become aware of the potential of the WSA, which can apply for the system reform. In the workshop, plenty of experimental activities were introduced, limiting the learning of the theory minimum. The workshop was organized by the present author and the main facilitator was played by Mr. M. Baba, who is working for the regional vitalization by using the WSA. He could attend the workshop from truly objective viewpoint since he does not belong to NITTC. As a result, his facilitation was a key point for active dialogue, being apart from each position. The attendees could find out the effectiveness of dialogue-based communication, and its advantage against the discussion-based communication. While the purpose of the discussion or debates is to appeal how one’s own opinion is better than the others’ opinion, the purpose of the dialogue

is to get a common understanding among attendees. Also, the relationship between the attendees has been apparently becomes better, sharing the positive and hopeful atmosphere with great smiling. Also, attendees could share the vision for the improvement of the classes.

In the second stage, the attendees of the workshop familiarize the WSA through their activities. For this purpose, the attendees have started to introduce the essence of WSA to their classes and recommend the other teachers to visit the classes freely. Also, they introduce the know-how of the WSA in meeting for personnel, taking care of dialogue-based communication. As a result, the communication besides meeting has also become active, leading the better relationship among teachers.

WORKSHOP FOR TEACHERS

The workshop mentioned before was programmed as sequential two days sections, being followed by one day reflection section after one month, with attendance of 10 teachers. The program of the workshop is given in Figure. 1.

Day 1	Day 2	Reflection
<ul style="list-style-type: none"> ✓ Opening & Check-in ✓ Paired Interview & Re-story ✓ Inquiry for future I want ✓ Check-out 	<ul style="list-style-type: none"> ✓ Check-in ✓ Theory lecture (WSA, Growth mind set, future thinking) ✓ Meeting by Open Space Technology (OST) ✓ Future Newspaper (Quick Prototyping) ✓ Check-out 	<ul style="list-style-type: none"> ✓ Check-in ✓ Reflection of activity ✓ Theory lecture(AI, OST, etc.) ✓ Meeting by World Café ✓ Check-out

Figure 1. Program of the Workshop

In the workshop, the lecture of the theory behinds each method was kept to a minimum, and the active and experimental activities was introduced abundantly. This is mainly from two reasons. One is to experience the activity based on the WSA without prejudice since the teachers tends to think too logically to action. The other is to feel the importance of “Being” aspect in the facilitation and management than “How to” one from the reason mentioned before. Then, detailed program was kept in secret until the workshop.

Check-in & Check-out

In each day, Check-in and Check-out session were set up to share each motivation, impression and expectation. In the first day, each attendee commented about “What do you want to feel after the workshop?” to activate thinking from the growth mind set and the future thinking. Also, to enhance the readiness, the pre-survey was done.

Paired Interview & Re-story

Attendees work in pairs. In a pair, both persons play an interviewer and an interviewee by turns, and the interviewer asks the questions along the list given. In the interview, to get deep insight, the questions are designed to answer as a story from interviewee’s experience, thinking deal of imaging and feeling. After the interview, the results are presented to all attendees from the interviewer. By this, the interviewee could reconsider its own opinion objectively and sometimes could notice a gap between “what he/she talks” and “what he/she listens to”. In this time, the audience writes the phrases in the presentation, which feel positive and important,

down to a post-it. This post-it, we call it as “Positive-it”, is presented to the interviewee. The positive-it could improve a feeling of self-approval and makes the interviewee happy.

Inquiry for the future I want

In this section, the attendees imagine what they want to realize in the future, this time we set the future as 5 years later and share their image with the others. This session is aimed to think a problem by future thinking, in which one consider what they should do now by the back-casting from the future one wants to.

Meeting by Open Space Technology

A specific point of Open Space Technology would be that the progress of dialogue is not controlled by the facilitator and respect the independence of the attendees (Owen, 2008). In the workshop, the theme was “Things you want to talk with the present attendees”. The topics was offered from the attendees and each attendee could join any topics they want.

Future Newspaper

The attendees make a newspaper very quickly (typically less than one hours), to experience quick and dirty prototyping. The theme was “NITTC is featured its activity ___years later”. In the beginning, each attendee gives interesting topics and share them with everyone. Next, the attendees make groups to write the article according to their interests. This process enhances consensus-building among members and independence. In this activity, the attendees can also learn the importance of visualization of ideas for deeper understandings and quick feedback.

Reflection of activity

Reflection session was set up one month later from the initial two days’ workshop. In the end of Day 2, each attendee made an activity plan for the next one month to achieve each goal in future. Until reflection session, the attendees periodically communicate for the peer-coaching. In the reflection session, each attendee commented about their activity, including what they can, what they feel (difficulty, happiness and so on), and the positive-it was given again.

Meeting by World Café

The session by World Café method (Brown & Issacs, 2005) was set up with three rounds. In the first round, the attendees separate into small groups and have a conversation. In the second round, remaining one person as the table host, attendees move to different tables and share what happened in the first round at each group. In the third round, attendees work in the same group with the first round and conversation again. Finally, individual insights and results from the conversation are shared. Interestingly, we can find things in common and visualize the flow of thinking in total (collective intelligence). The theme for inquiry in first and second round was “how does quality of relationship change in the workshop?” and “what do you learn and how do you apply it for future activity?”. In third round, the inquiry was “what is necessary for both teachers and students to work independently and actively?”.



Figure 2. Scenes in the workshop

Results from comments and survey

After the workshop, we did not take the survey with numerical evaluation of topics. Instead of it, we took interview and survey by writing down of comments, to see the feeling and emotional aspect. The most impressive point in these comments is that almost comments are hopeful and positive toward the future. In the pre-survey before the workshop, almost of teachers commented about the practical problems they are facing and how to seek the solution for it, being forecasting viewpoint.

The other perception was that almost of teachers have a gap between what they want to achieve and what they actually do now since teachers are basically busy and there is no enough time for refinement of their activity. This gap with the busy environment makes them negative and bothersome feeling. After the workshop, however, everyone noticed that it is important to be positive for the better work and education, and such positive thing always exists nearby.

In some comments, the attendees could develop mutual trust and relationship through the dialogue-based communication. In the workshop, varieties of teachers, who are from different expertise, worked together, while the teachers communicate only with some fixed teachers generally. On this point, the workshop became a chance to expand their companion to talk with and to get a fresh insight.

DISCUSSIONS

In the workshop, we focused on the “Being” aspect of facilitators and teachers, putting emphasis on communication through dialogue. Also, we did not treat the practical problems, which the teachers are facing directly, so much. As a result, the teachers could concentrate on importance of dialogue and future-thinking.

In the classes, the essence of the WSA has been introduced on many aspects. For example, now we have spent more time for team building in the PBL classes than before. By introducing the group-interview and re-story, the communication among group members becomes apparently better. Also, by introducing the essence of the Open Space Technology, the students can choose the group members in the project, which have a similar opinion about the working theme with them. This enhances the motivation for the work. On the other hand, this method is sometimes problematic for the students, who cannot indicate his/her intention

explicitly. In these case, the teacher's support with deep understanding about him/her becomes important.

In the PBL classes, the quality of communication among teachers becomes better and frequent discussions and continuous improvement of contents become usual. Also, the positive and lively activity of teachers simulates the students so much, resulting in active communication with group members and also with teachers.

In Japan, students generally call a teacher as "(Name) - sensei", where "sensei" means teacher, while teachers call a student only by name. This system is originally coming from the hierarchical problem according to position and age. Recently, however, some teachers are recommending to call their name as "(Name) - san", where "san" means Mr. or Ms., regardless of teachers and students. This is a very small thing, but would be an important step for the improvement of quality of communications between teachers and students.

CONCLUSION

In NITTC, the WSA has been introduced to reconsider the role of teacher and to introduce the rational educational policy intended to the PBL classes. Through the workshop, the core teachers could learn the essence of the WSA and try to introduce its know-how in the classes. This activity apparently improves the teacher's approach to the classes and quality of communications among teachers and students. This activity has just started and continuous activity to expand the ideas of the WSA to the whole is necessary. As one of such activities, the workshop, working students with teachers and engineers together, has been started (Ohnishi, et al, 2020). We will report our further activities elsewhere.

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