

Creating a Sustainable Constructionist Society with Generative Social Field

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Abstract

Mitta Social Enterprise is an organization dedicated to expanding the impact of the Constructionism approach to education developed by Darunsikkhalai School for Innovative Learning. Currently, they are building upon this foundation by incorporating knowledge from Compassionate Systems. The DJOP Innovation 2023 project is one such initiative that implements Constructionism-based learning activities and cultivates Compassionate Systems thinking among participants. This is achieved through the creation of a generative social field for youth from 10 Juvenile Vocational Training Centers across the country. Findings from this project reveal that participants felt a sense of safety in the learning environment (Generative Social Field), which led to the realization that others valued them. This, in turn, fostered self-worth among the participants. They became more open to listening to their peers and actively shared ideas with one another. Additionally, they were able to reflect on their learning and connect the artifacts they created to their own life experiences. It is evident that Compassionate Systems enhances the reflection process inherent in Constructionism, making it more profound and connecting it to personal experiences and perspectives on life. This approach also fosters a friendly learning atmosphere, creating a sustainable learning community.

Keywords and Phrases: Sustainable Constructionist Society, Evolution of Constructionism, Compassionate System, Design Thinking

1. Introduction

Darunsikkhalai School for Innovative Learning is a leading example of an educational institution that fully implements the Constructionism theory in its teaching and learning practices. Founded over 20 years ago, the school has been a pioneer in this approach. MITTA SOCIAL ENTERPRISE COMPANY LIMITED was established to extend the impact of Darunsikkhalai School for Innovative Learning's Constructionism-based education to other schools, communities, and organizations across Thailand. The goal is to empower Thai people to learn how to learn, fostering lifelong learning.



Currently, Darunsikkhalai School for Innovative Learning and MITTA SOCIAL ENTERPRISE COMPANY LIMITED are entering a new phase of Constructionism development. This phase aims to pilot the integration of Compassionate Systems into lifelong learning for Thai individuals (Figure 1).

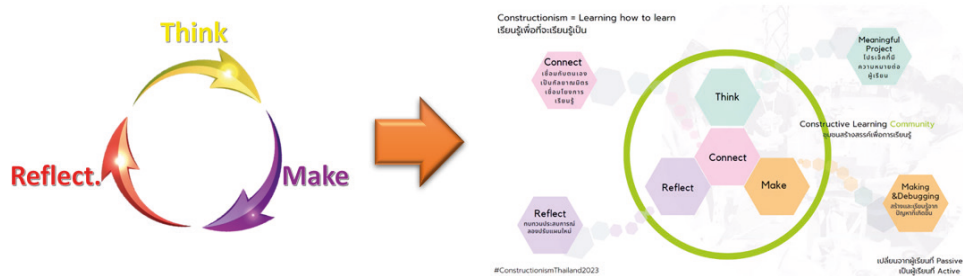


Figure 1: Illustrates the evolution of the Constructionism process, from its traditional form to its current iteration that integrates Compassionate Systems. (Image courtesy of Constructionist Thailand).

1.1 Project Description

The DJOP Innovation 2023 project is another initiative by Mitta Social Enterprise, in partnership with the Department of Thailand Juvenile Observation and Protection, aimed at developing the thinking processes of youth in Juvenile Vocational Training Centers. Now in its second year, the project provides opportunities for youth and their house teachers to learn Design Thinking, programming, and fabrication through the creation of life-relevant innovations under the theme “For a Better Tomorrow.” This project aims to teach design processes and computational thinking.

This project is designed for youth from 10 Juvenile Vocational Training Centers across the country, all of which are exclusively for males. Participants are selected by their house teachers, with 5 youth chosen from each center, totaling 50 participants aged 11-23. The activities are divided into two rounds, with 5 centers participating in each round. These activities are held at the Mitta Learning Studio, 11th floor, Darunsikkhalai School, King Mongkut’s University of Technology Thonburi.

1.2 Project Activities

This curriculum focuses on enabling learners to create innovative prototypes based on their own interests, following the Constructionism approach. The Compassionate Systems process is integrated to instill in learners the ability to think critically, solve problems independently, reflect on their life experiences, connect themselves with society to contribute to it, and take care of their own well-being.

Learners will learn the fundamentals of the Design Thinking process, allowing them to design innovations by studying user data (Empathize), using interview data to identify user problems and define the innovation to be developed to help solve those problems (Define), generating a wide range of ideas for the innovation (Ideate), creating diverse simple prototypes (Prototype), and testing those prototypes with users as quickly as possible (Test) to gather additional information and further develop the prototype to better meet user needs.

The final prototype of the activity is a Working Prototype, which demonstrates the working mechanism of the innovation and is closer to the designed innovation. This prototype will have some or many parts that demonstrate the operation of the innovation, using GoGo Bright with various sensors as a microcontroller to control those mechanisms.

As mentioned above, in this project, in addition to designing and creating innovations based on the Constructionism approach, we also designed activities to promote Compassionate Systems, focusing on the Generative Social Field to create an open learning atmosphere where everyone has the opportunity to speak and share things, listen to others with an open mind, and be ready to share ideas with friends, making learners feel comfortable learning together and creating friendships.

The activities that we have introduced to the learners to practice are: before starting the activities every morning, learners are trained to observe their own emotions and feelings and Check-in to talk about things they want to share with their friends and listen to their friends as well; Grounding, which is an activity that focuses on bringing learners back to the present. Some activities involve being with oneself, and some activities are paired activities. The activities are diverse, such as Meditation, Tai Chi, etc. And before the end of the activities each day, there will be a Grounding activity to allow learners to let go of worries or things they are working on and come back to the present together again. After that, learners are asked to do a Journal or record their Reflections, what they felt, did, or learned today. And finally, at the end of each day, there is a Check-out activity to share or talk about things they want to tell or share with others and listen to their friends again.

2. Methodology

This short paper documents a best practice study using qualitative research. It explores how the Generative Social Field impacts Constructionism. Data was collected during and after the activities.

During the activities, data came from: Observations by the researcher and organizers and students sharing during the activities, including: Check-in and Check-out sessions, “giving heart-filling” (ให้ใจ-เต็มเต็ม) activity, sharing summaries of learning after creating innovations.

Post-activity data came from: students’ written reflections on their experiences after activities.

3. Results of Implementing Compassionate Systems

The implementation of a Generative Social Field within the Constructionism process enhances Constructionism in the following ways:

3.1 *Sense of Safety in the Learning Environment (Generative Social Field) Leading to Self-Worth*

Learners reflected: “I feel that everyone sees my value and doesn’t overlook me, and understands us. This makes me feel that there are many more people ready to give us opportunities, we just need to take good care of ourselves and be ready to accept those opportunities.” (Figure 2)

“Participating in this project has allowed me to learn new experiences, to work as a team. Although there may have been some mistakes, misunderstandings, and trial and error, we were able to overcome them well. This makes me realize that every success must come from mistakes first, and there is nothing that anyone has never made a mistake in.” (Figure 3)

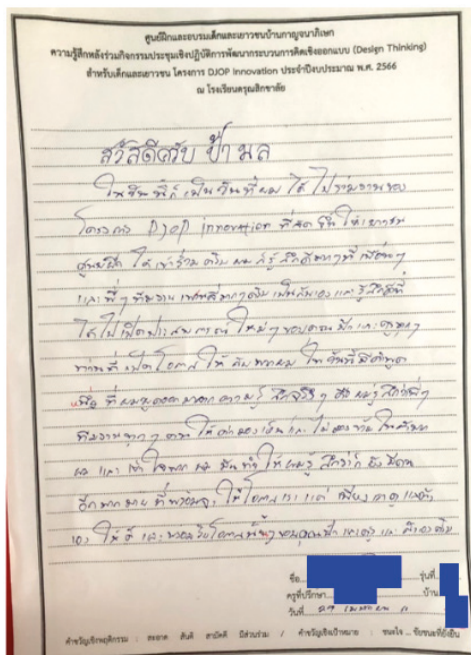


Figure 2: Learner reflections after the activities.

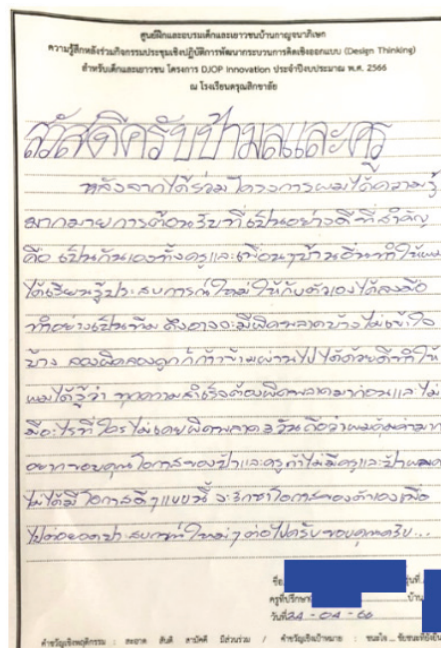


Figure 3: Learner reflections after the activities.

3.2 Fostering Openness to Listening to Peers and Sharing Ideas

The Generative Social Field process allows learners to share and listen to their peers, creating a safe learning space. This can be observed from the “giving heart-filling” (ให้ใจ-เติมเต็ม) activity after the Show & Share. In this activity, each group of learners shares their innovations with their peers, giving the listeners an opportunity to “give heart” and “fill.”

“Giving heart” (ให้ใจ) refers to listeners expressing admiration or appreciation for something, whether it be the process, the invention, the idea behind the invention, or offering encouragement to the presenting group. “Filling” (เติมเต็ม) refers to listeners sharing or offering ideas related to those innovations to the inventors. This could be extending ideas, suggesting equipment or mechanisms that could be used, as well as future market trends that the listening group has observed.

In this project, with the implementation of the Generative Social Field process, it was found that learners were open to listening to their peers. Although the ultimate goal of this project is an innovation competition, learners helped each other by offering ideas to help extend each other’s innovations, creating a learning space of sharing.

3.3 *Crystallization and Connection of Learning Between Artifacts and Life Experiences*

The Grounding exercises allow learners to return to the present moment, be with themselves, and practice observing and reflecting on their own feelings. This enables learners to reflect on various experiences, including their feelings during the activities and what they learned from them. This practice helps learners take care of their own mental well-being and allows them to connect their experiences of creating artifacts with their own life experiences. These thoughts are then conveyed through journaling before the end of each day.

After the learners have completed their innovation, there will be a Show & Share of that innovation, along with a summary of what they have learned from creating the innovation. Here are some reflections from learners connecting their learning from creating the innovation with their life experiences:

- Creating the innovation is difficult. There are mistakes, there are problems. It's very difficult, as difficult as life has been.
- In the past, I wasn't a bad person, but I was someone who made mistakes, and I have to correct them.
- While living outside, I didn't finish school, I didn't finish Mathayom 6 (Grade 12). But while I've been in the detention center, I have studied until I finished Mathayom 6, and now I'm studying for a bachelor's degree.
- I've never liked being in the detention center, not even for a single day. But being in the detention center has allowed me to participate in this activity. It has made me realize that there is such a good learning activity like this.

4. What Compassionate Systems Adds to Constructionism

The use of Generative Social Field and Compassionate Systems in the Constructionism process enhances Constructionism as follows:

4.1 *Making Reflection in the Constructionism Process More Profound and Connected to Life Experiences or Perspectives*

By having learners do Grounding, allowing them to return to themselves, return to the present, and practicing observing their own feelings, learners learn to connect with themselves. This leads to a better connection between new experiences, life experiences, and various perspectives in life.

4.2 *Creating a Friendly Learning Atmosphere*

Check-in and Check-out allow learners to share things with their friends and listen to their friends as well. This creates an atmosphere where learners are familiar with sharing and listening to others, leading to a connection between themselves and others. This makes the atmosphere of the activities a friendly learning environment, full of care, encouragement, and mutual support, helping each other share ideas to develop each other's work.

5. Conclusion

From the above, the author believes that creating a Generative Social Field and Compassionate Systems is very important because it will help create learners who are mindful, ready to listen to others, ready to share and support each other, and who deeply reflect on things. These things will help further Constructionism by creating team-based learning, creating connections, creating a friendly learning community, and being ready to help society and others, and a sustainable learning community.

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