

“Empathy and Emotional Customer Journey Map Methods : for Designing Creative Learning Space”^{*}

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Abstract

This research article is a result of the workshop project “Co-Creation Workshop for Creative Learning Space”, which aims: (1) to analyze learners’ learning behavior in the learning space of Silpakorn University, Wang Tha Phra campus; (2) to evaluate the situation of the learning process of design arts students; (3) to understand the process of support and relationships between service providers and users in the learning space at Silpakorn University, Wang Tha Phra campus; and (4) to suggest guidelines in order to design learning space service that suits the learning process of design arts students. The sample group for this research is a group of students, who are the core stakeholders, which consists of 29 volunteers of the current students and the main library’s officers. The data used in the research was collected from the participatory workshop under the title “Co-Creation Workshop for Creative Learning Space” in order to study creative learning space regarding design arts in the context of Silpakorn University, Wang Tha Phra campus, which is research mixed between action research and qualitative research. This article will present the research in the procedure of exploration and data collection.

The data will be collected in depth, especially in the field of ethnographic research, which will be able to indicate “user insights” of the studied group. In addition, the data during this period will be useful data that leads to finding new choices for the most appropriate learning space design. The research applied the concept and theory of “Service Design”, which is the combination of participatory design and user-centered design. There are two sets of research tools, including the empathy map and emotional customer journey map.

The result of this research presented learning characteristics of the learners, which can be divided into two groups; the first group, whose objective was to learn, which is aimed at getting information from useful research, needing a well-managed arrangement of space;

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and the second group, who aimed to get fresh ideas and inspiration from learning. Both of these two groups need a space to relax from learning as well.

Background and significance of the research

When the idealistic idea of lifelong learning has become a reality, learning space is not only found in classrooms, libraries or schools anymore, rather everyone can learn anywhere at any time. Often classrooms try to push and produce students to have the same ways of thinking and qualifications, which is not how it should be. Moreover, social, economic, and cultural factors have been resulted in the change of people's ways of living, including learning, work, society, and space. The advancement of internet and technology these day help learners to be able to access to knowledge and have freedom to express creative ideas easily and rapidly.

These constant changes resulted in significantly changed of tendency of the learners' behavior in response to their needs and the paradigm of the study of design arts, which explained that the study of design arts should allow learners to express opinions freely and imagination, as well as learner should have a special learning space in order to fulfill imaginations, enhance creativity and fully show abilities of the learners

Silpakorn University is a well-known university for its reputation of education and the service of design arts which ranked in the top rank of Thailand, having Wang Tha Phra campus as a place to captivate and manage the study of design arts for students and Wang Tha Phran main library that supports learning service including resources and space. Regarding changed factors above and the role of being a campus of design arts, therefore, the emphasis of the university's learning space is considered as one of the top priority factors that will support learning. Learning space should not be only a place to study but a creative learning space that reflects the context of society, environment, and learners of that space, especially design arts learning, should provide learning style that develops both thinking and imagination skills.

An idealistic learning space should allow learners to decide which learning space is the best for them. Thus, the important thing of learning space management is to get to know learners in order to find out what they actually need from learning and what kind of learning space they want. "Understanding your learners is part of designing good learning experiences. If you don't understand your learners, unfortunate things can happen" (Dirksen 2011). Education should realize the differences between learners and help them to use their abilities as much as they can. There is no need for everyone to be the same but they all have a chance

to develop themselves to the direction that they want and at the level that can go with their best, if not, how can an idealistic learning space will become a reality?

Regarding the study of the real need of design arts study, it cannot be studied from the collection of thoughts or traditional tools that have been used because art students have various needs and interests and they are different depending on skills and majors of studying. So, there should be the innovation, which is the collection of thoughts or new technology that will unlock and create changes that never happened before in designing of learning space. The application of service design tools which are the study of humanity and social science, even though the researcher acknowledges the actual need of the target groups from an interview or a traditional way of data collection. The basic skills of the traditional research such as conversation, listening, observation and test are not enough be a tool that use to design efficiency service, especially art learning space which its users have various needs.¹

The research procedure of service design will use effective research activity design in order to create participation among core stakeholders and systematically in-depth synthesize the obtained data from the activity as those procedure lead to creating value to such service.

To design for people, we need insights of people's needs, motivations, and behaviours. Qualitative research can usually provide the data for these insights better than quantitative research (Andy Polaine 2013). The research procedure of the service design will allow the core stakeholders to participate in activities without getting bored and open doors for them to review their experiences and express those experiences in a form of story, opinion, emotion, and point of view. Participation will allow the researcher to acknowledge in-depth needs and emotions occurred among participants very well. The procedure of service design for design arts learning space is not only the research that designs learning service but also covers the innovation and experience development and improvement in order to create learning process, leading to best learning. It is hoped that the result of the study of learners' needs will lead to the occurrence of the service of design arts learning space. In addition, the service is not just temporary learning experience creation but will have to create innovation and "chance" to learn in a long term. Thus, learning space service needs to be designed.

¹ Curedale, R. A. (2013). Service Design: Pocket Guide, Design Community College Inc.

Research objectives

1. To study and analyze learner's learning behavior, who are the core stakeholders of the learning space at Silpakorn University, Wang Tha Phra campus.
2. To evaluate the situation regarding learning process of design arts students.
3. To understand the process of support and relationships between service providers and users within the learning space at Silpakorn University, Wang Tha Phra campus.
4. To suggest guidelines in order to design learning space service that suits the learning process of design arts students.

Research questions

- In different ways, how to use space and technology to learn creative design arts?
- In which space the learning mode still in?

Research operation

This research is about the study of design arts creative learning space in the context of Silpakorn University, Wang Tha Phra campus; it is mixed-research between action research and qualitative research by emphasizing on corporation and understanding of learning space service providers' work and reflection of space usage experience of space users. This research needed holistic information in order to understand the context of design arts learning process, which details regarding environment, society, culture, way of life, and participation experiences of learning space were collected during the research period and were analyzed in order to understand such context, which this is considered as the fundamental concept of qualitative research

The data used in this research was collected from organizing the participatory workshop for the core stakeholders, which was held under the title "Co-Creation Workshop for Creative Learning Space" on January 27, 2015 at Design Arts Gallery, Faculty of Decorative Arts, Wang Tha Phra campus.

Population and sample group

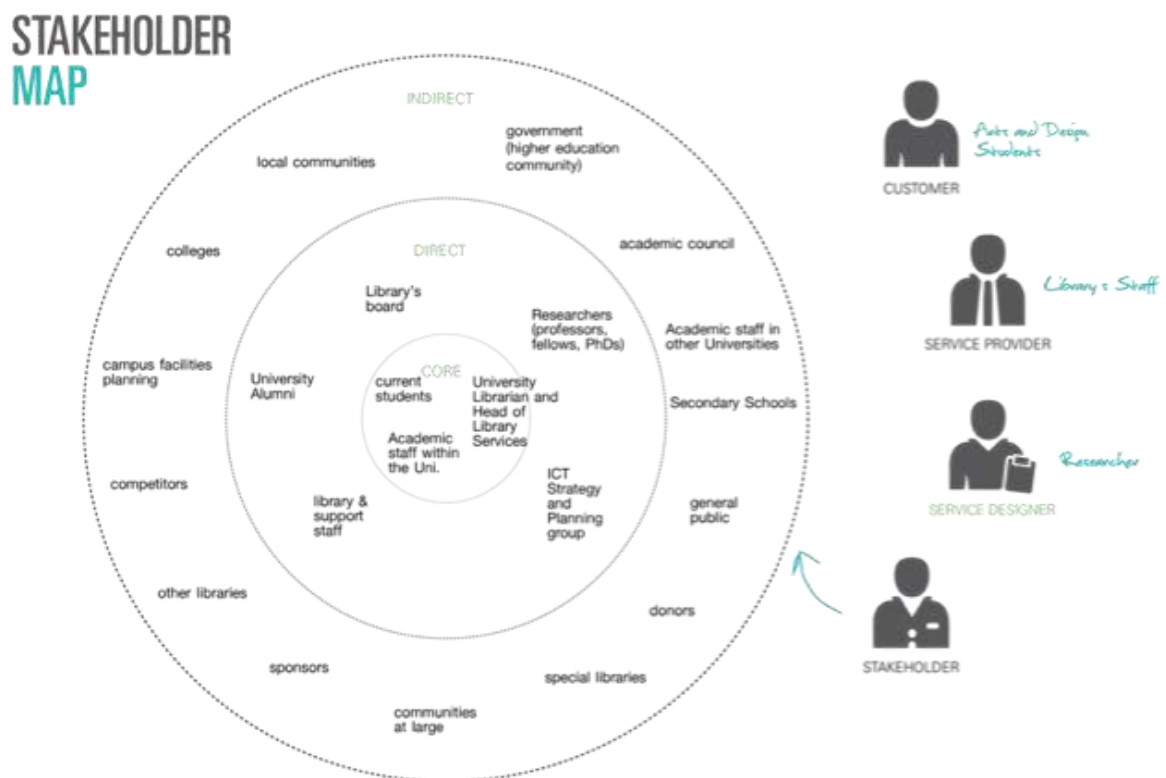


Figure 1: Core stakeholders of learning space at Silpakorn University, Wang Tha Phra campus

This research is a part of dissertation titled Service Design for Thai Creative Learning Space, so it referred to the same population and sample group as shown in figure 1. The researcher selected the population that will be used in the research from the group of core stakeholders which included current students, main library officers, and academic officers². Hence, the population for this research was divided into two groups including; the group of learning space service users who are current students at Silpakorn University, Wang Tha Phra campus, and another group was the learning space providers, who are the main library officers, Silpakorn University, Wanh Tha Phra campus. There were 29 participants total in this study.

The first group, the group of current students who are service users or people who use the learning space, there were 20 people participated which consisted of 9 students from Faculty of Painting Sculpture and Graphic Arts, 2 students from Faculty of Architecture, 4 students from Faculty of Archaeology, and 5 students from Faculty of Decorative Arts. The reason

² There was a time limit for this workshop research, so the researcher cut down the group of academic officers

that the researcher selected students from these four faculties is because those faculty are faculties that provide classes at Silpakorn University, Wang Tha Phra campus. Moreover, these students always use space in the university, outside and inside classrooms, especially the main library of Wang Tha Phra campus.

The second group which is the group of service providers, the researcher selected this targeted group as it is clearly seen that the main library plays an important role as a service provider that supports and develops learning process regarding art study and other majors, as well as provides resources and contributes to innovation creation. There were 9 officers from Wang Tha Phra main library participated in this study.

Research process

The researcher worked and collected data through the participatory workshop of core stakeholders under the project entitled “Co-Creation Workshop for Creative Learning Space.” There are two processes (figure 2), however, only the first process of exploration will be discussed in this article, which is the research process in order to obtain user insights.

Exploration is a survey and data collection, which the data will be collected in depth, especially in the field of ethnographic research as it will indicate “actual needs” (user insights) of the studied population. Data obtained during this period is the data that will guide to new chances for the most appropriate service design. During the exploration process, the population group will be selected from the analysis result of stakeholder mapping (figure 1). There are two types of tools used in this process which are empathy map for the learning space service provider group and emotional customer journey map for the learning space service user group. The obtained result is the actual needs or user insights including in the dimension of learning space usage experience, vision of problems, depth demand, or even the participants’ attitudes.

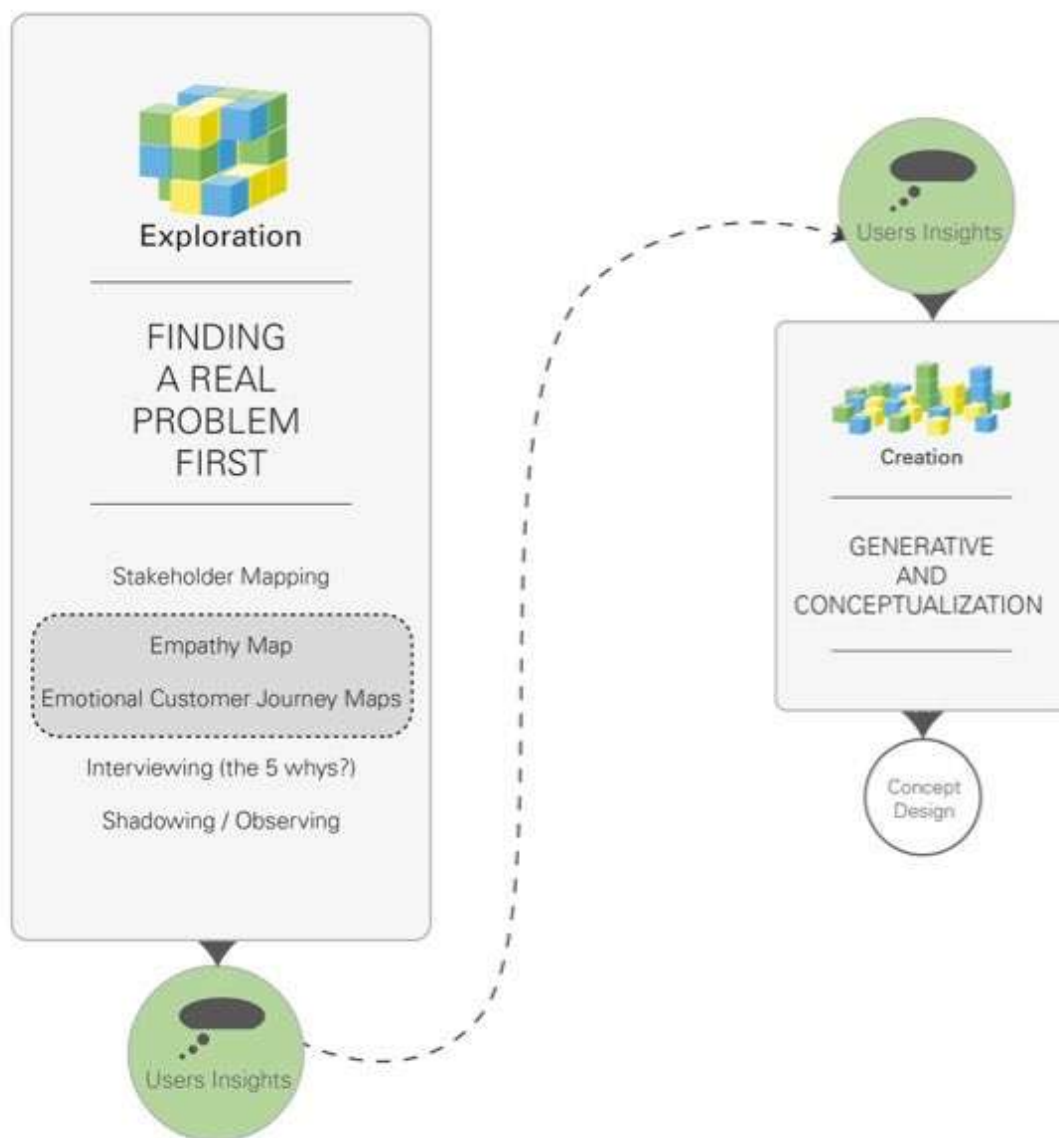


Figure 2: Service Design Process for Co-Creation Workshop

During the exploration process, the population group will be selected from the analysis result of stakeholder mapping (figure 1). There are two types of tools used in this process which are empathy map for the learning space service provider group and emotional customer journey map for the learning space service user group. The obtained result is the actual needs or user insights including in the dimension of learning space usage experience, vision of problems, depth demand, or even the participants' attitudes.

After the exploration process is done, the researcher and participants will be able to see an overall image of the real needs of themselves and their friends. During the empathy map and emotional customer journey maps activity, the researcher will interview and shadow

or observe by listening and asking questions which will lead the researcher to be able to understand forms of thinking process that the participants expressed clearer and more concrete. When the researcher understands the real needs in every aspect, after that the research will move into the process of brainstorming in order to create new ideas and innovations for the service.

Research tools

Tools used in this research are the tools from the theory of Service Design, which is the concept of the combination between participatory design and User-Centered Design and connecting to the science of product, environment, experience and interaction (Marc Stickdorn 2012). There are two types of tools that will be used in order to find user insights;

1. Empathy Map

Making empathy map will help the researcher to understand the targeted groups rapidly in every aspect (Osterwalder and Pigneur 2013). Moreover, empathy map is important because it leads to the development of correct and suitable concept for those targeted group, which is considered as the first step of the development of new concepts and innovations.

The map of understanding, which will be used with the learning space service provider group, is the application using the concept of putting yourself in someone else's shoes or to try to understand the others as much as possible. The structure if empathy map can be divided into six parts as follows;

1.1 See or things that can be seen. This part of research will let the participants to think back to what they have seen in the environment of the space that used in order to see who were they with? what events they saw? what was the environment? and who was the important person in that environment?

1.2 Hear or things that can be heard. What did the participants here during the activity? what are things that influence participants? such as, what did their friend say? which participants have influence on others? which media have influence on participants and explain things that the users have heard?

1.3 Think and feel. Let the participants tell what they think and how they feel? what is the important thing for them and what affects their emotions? as well as let the participants think what is their dreams and inspirations or even their anxiety

1.4 Say and do. Let the participants think of what they have said or done in public? what are the current attitudes of participants? and what are stories that the participants told others.

1.5 Pain. What are problems or obstacles currently? what are things that make the participants confused? what are things that obstruct their needs? and what risks are they afraid of?

1.6 Gain. What are things that the participants obtain from the activity? what they need or what do they want to succeed? how can they measure such success, and what are strategies to reach such target?

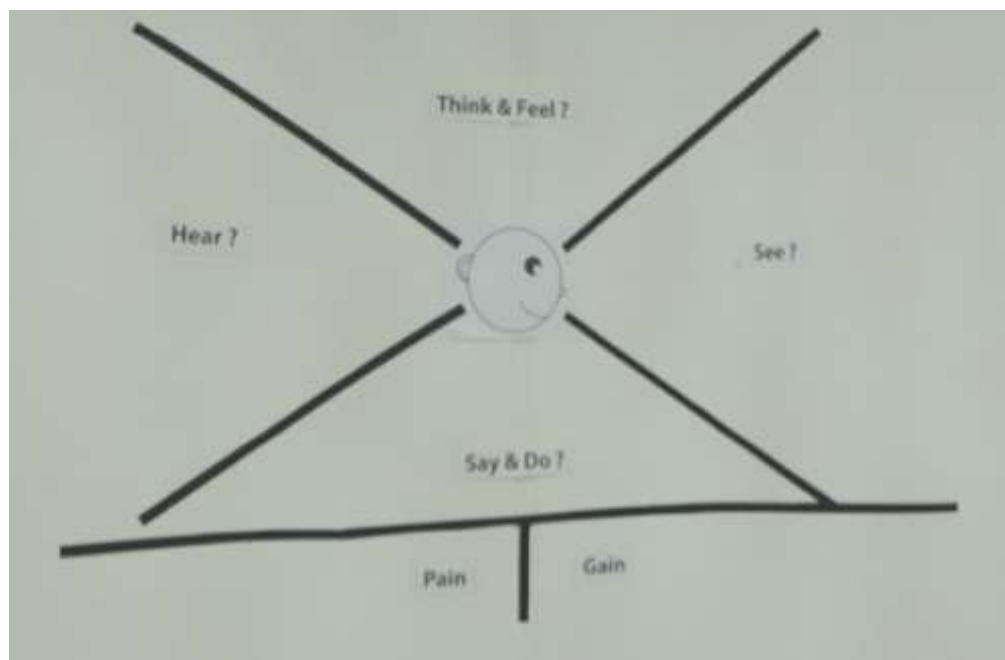


Figure 3: The big chart of empathy map for the participants to place post-it note.

From figure 3, the researcher prepared big chart, post-it notes and pens so that the participants can use in the activity. The post-it notes were divided by colors in order to avoid confusion.

1. Emotional Customer Journey Map

Emotional customer journey maps is the tool that the researcher used as a medium to convey participants' experiences (journey map) toward design arts learning space in the context of Silpakorn University. The researcher used this tool with the learning space service user group, this process will allow the researcher to see the experience of learning space usage and the learning models of the participants, including before, during and after the learning process, which will be presented in the form of a chart. However, the researcher added the

emotional stickers in the journey map as well in order to see how interactions and feelings of the participants show on the touch point in order to find out the point that is the cause of the problem and lead to new chances. This tool will help the researcher to understand the participants' point of view and the connection of each step of learning space service and usage clearer.



Figure 4: Equipments used in the building of emotional customer journey map

From figure 4, the researcher specified the main issue for building the emotional customer journey map. Purpose of this process was to let the participants tell their experiences of doing a project, starting from receiving brief until finishing project as well as indicating emotion of each touch point. The researcher prepared A3 sized paper, stationeries and emotional stickers for the participants. The emotional stickers were divided into three colors, yellow means happiness, pink means unhappiness or stress, and purple means confusion or curiosity.

Data analysis

Data analysis of this research analyzed the data from Co-Creation Workshop, which using those four tools helped the researcher to be able to analyze the content. Furthermore, from the study of participants' design and presentation including case study, participatory observation, in-depth interview, and focus group by analyzing the obtained information and presenting it in a descriptive presentation, These data had been analysed during data collection and group the obtained information by connecting it with the relevant concepts in order to explain the results in a descriptive form.

The research's results and conclusion

There were two types of tools used in the first process of this research which are empathy map and emotional customer journey maps, the results and conclusion are as follows;

1. Empathy Map The participants wrote their opinions from their experiences, attitudes and point of views on papers and put them on the board as shown in figure 5, it can be seen that the opinion was expressed in 178 issues.

To be able to understand and analyze the research results clearer, the researcher has divided the data into six groups;

1. User refers to data concerning the main library space and service users
2. Service Provider refers to data of the main library officers and the service.
3. Facilities refer to data about resources, facilities and information technologies.
4. Space refers to data concerning service space
5. Service refers to data about the main library service.
6. Others refer to data concerning other issues that are not relevant to learning-space but occurred during the service such as general conversation between coworkers as soon.



Figure 5: The data that the participants put on the chart of empathy map

After analyzed the obtained data and group it according to frequency of activities, the researcher noticed the real needs of participants clearer. So, according to divided into six group as mentioned above, the result can be summarised as follows;

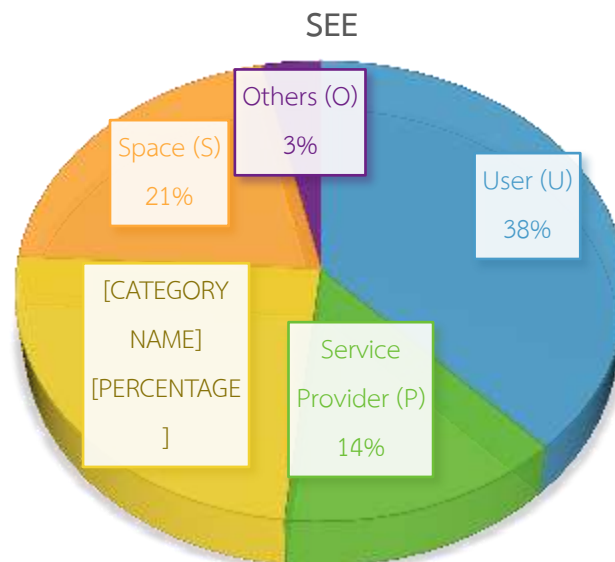


Chart 1: Show the ratio of things that the participants saw during the service of learning space

In the service space of Wang Tha Phra main library, large amount of students (users) use the service from the library, can be seen from Chart 1, which 38% of the participants informed that during the service, they saw different behaviors of users. Most of the students brought their laptops to use in the library and used the electricity from the library. Furthermore, most of the students did not use the computers that the library has prepared and most of the users spent their time in the library all day as well as used other resources such as books and magazines.

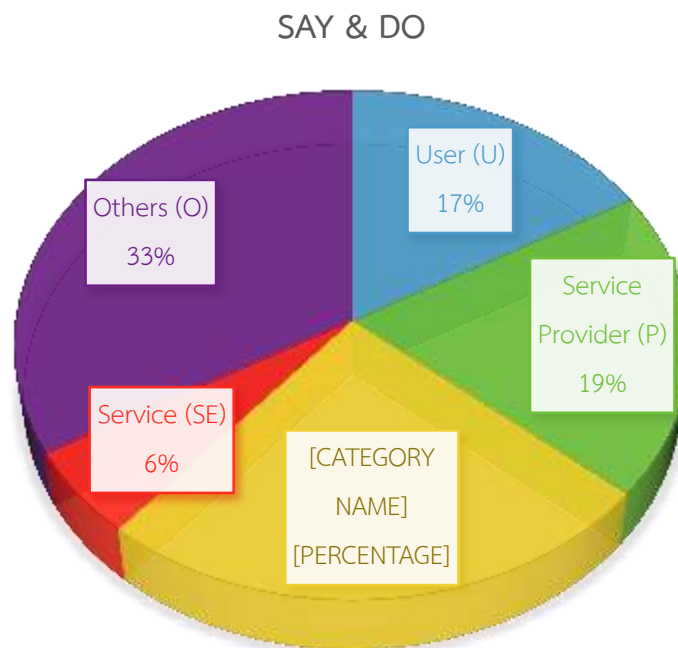


Chart 2: Show the ratio of what the participants said and did during the service of learning space

Say & Do are what the participants have said and done often in each day. These data revealed that they are not about the service but other work or daily conversation. In addition, it was also about the service provider, referring to coworkers, and the percentages of these two issues are 33% and 19% respectively. This points out that the communication between the service provider and the users are in the low efficiency of the communication occurred only whenever there were especial events or when help is needed.

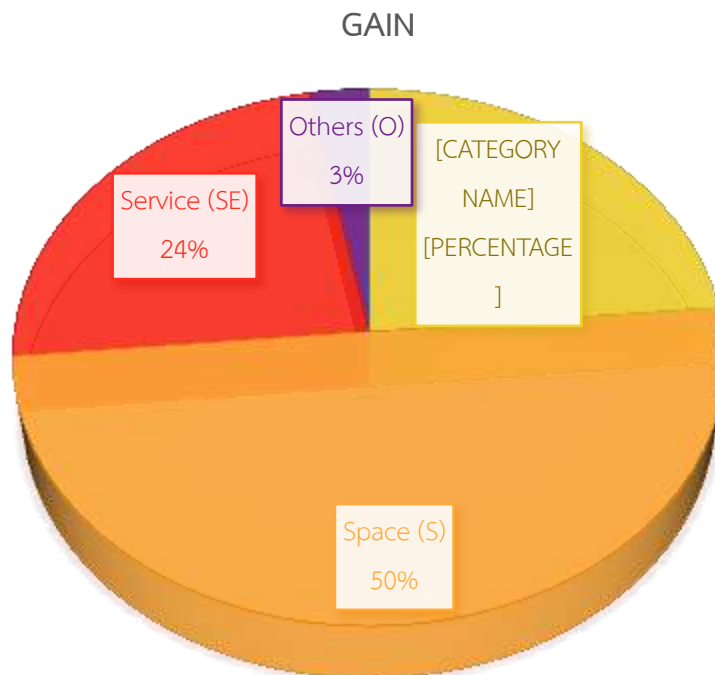


Chart 3: Show the ratio of what participants said and did during the service of learning space

Gain refers to issues that the participants think that there should be some development. It can be seen that the issue about service users or coworkers were not discussed at all. On the contrary, the need to develop service space is at 50 %, followed by the need of facilities and service development at 23.5 %. The need of development included having enough space to service in the library, study rooms for students, separate zones such as IT, loud zone, and quiet zone, more space to service students, more budgets to purchase more books.

Pain refers to the aspect of things that are concerned as problems and they obstructed the service or work, leading to unhappiness or inconvenience. The result found indicates that it is about facilities that are old and need maintenance, such as water stops running, burglar and the cameras did not work, broken computers, leaking roof, power cut, air conditioners are set on too low temperature, etc. However, there are some interesting opinions such as the issue of having less people work in the library, which this might be the reason that there is more work to do and less people working, therefore it resulted in less communication between the service provider and service users. Moreover, it also included the issue concerning the service users do not follow the library rules, which can analyze the data obtained from the Gain that there is limited space for high demand of users, so the learning space is crowded and the service provider is not able to fully take care of the users.

Hear refers to general issues such as complaining about too much work, giving courage to work, and problems about work. Furthermore, things that are heard often is about facilities such as students asked where can they make a photo copy, or asked about books.

Think & Feel refer to things that the participants think and feel which 32 % think and feel about the service and 26 % think and feel about the space.

2. Emotional Customer Journey Map

The participants drew the experience chart from their learning experiences as well as indicated their emotions for each touch point. In addition, the participants drew the chart of emotional customer journey maps and put emotional stickers for 20 charts total. There are three colors of emotional stickers in the charts, including yellow refers to happiness, pink refers to unhappiness or stress, and purple refers to confusion and curiosity. The example of emotional customer journey maps is shown in figure 6.



Figure 6: The example of Emotional Customer Journey Maps drew by the participants.

From 20 charts of the emotional customer maps, the researcher concluded to one chart which is the Learning Journey Experience Map (as shown in figure 7), and divided the learning process into 3 periods, which are Pre-Learning, Learning, and Post-Learning in which each period has different learning activities. For the pre-learning process, it is the period that

the students will receive the brief from teachers, after that, it is the process of leaning which there are research and implementation activities. These two activities can be done on a reverse. Next, it is the final process which is the post –learning; the activity used in this period is called deliverable, which students present their or submit knowledge to teachers (as shown in figure 7).



Figure 7: Learning process

The researcher divided all obtained data into six interesting issues as shown in figure 8 (1/2) and figure 8 (2/2);

Touch point, in this research refers to the touch points that the participants have experienced, including things that they used, saw, found, acknowledged and communicated during the learning process and the learning space usage both directly and indirectly. Regarding touch points, the researcher separated by types to make it easy to understand, as well as used symbols to refer to touch points and divided by colors according to activities occurred.

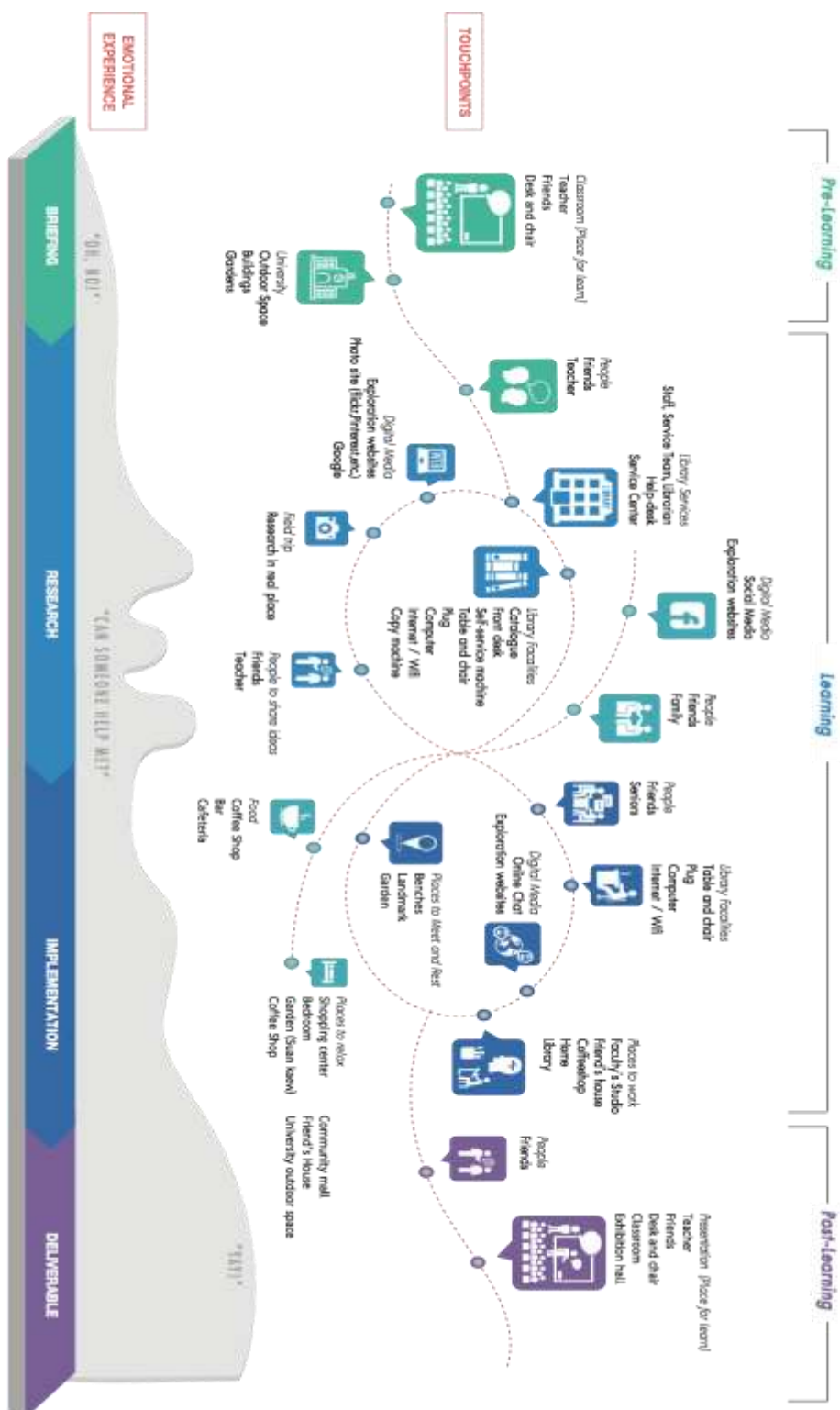
Emotional Experience, is the period of emotions and feelings of the participants during the learning process and the learning space such as, what are things that make the participants feel relaxed or what are things that make the participants confused and feel stressed.

Place is the area or space that is connected to the learning process, which will tell what kind of place that the learners use for learning which covers not only within the university but also other space that the students used. Action is the activity and a form of actions happened during the learning process and the learning space. Thinking refers to opinions or attitudes of the researcher toward the learning process and space. Felling refers to feelings of the participants that expressed by drawing the charts.

The results from 20 charts of the emotional customer journey maps from students of four faculties can be concluded and analyzed as follows

LEARNING EXPERIENCE

Experience Map & User Journey & Emotional Map



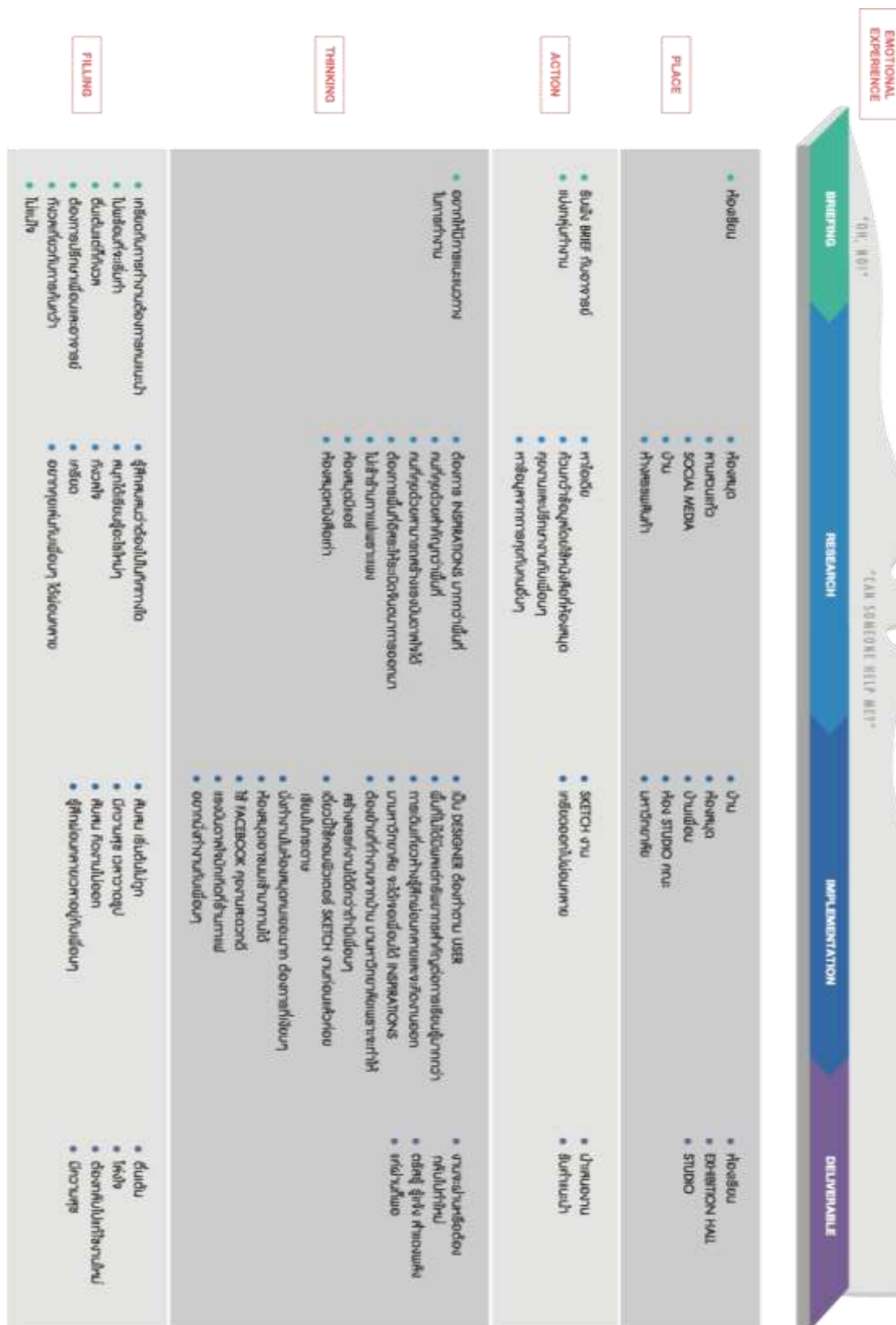


Figure 8 (1/2): Learning Journey Experience Map

Figure 8 (1/2): Learning Journey Experience MapStart from the pre-learning, students will listen to the brief or questions from teachers which most of these take place in classrooms, after that, students were divided into groups in order to work with their friends and this usually takes place outside classrooms, classrooms, and gardens. Emotional condition occurred in students during this period revealed that learners felt stressed with their work, need someone to suggest, and most of them were not ready to work. Moreover, they were worried to do research and were not sure where to start, resulting in the need of guidelines for work more. However, before moving to the learning period, most of the students preferred to consult their classmates about the directions of work and search rather than asking teachers. In addition, some of the participants mentioned that they have not started working yet during this period because they claimed that they did not feel familiar with it yet as it is the beginning of work, so they spent most of their time during this period to brainstorm and relax with friends.

When entering to the learning process, the first step the students will do is to do research, the areas the learners use for research are various and different depending on what they are studying about, such as the group of students from the Faculty of Archeology and the Faculty of Painting Sculpture and Graphic Arts will use the space in the main library to do research, which might be because of the teaching and learning form that emphasizes on research from history books.

On the contrary, students from the Faculty of Decorative Arts and the Faculty of Architecture always need the most updated information, therefore they spend their time try to find inspirations at home and use internet or social media. Moreover, they also try to find inspirations at other places such as shopping mall or talk to friends

Although the models of space usage for the beginning of learning of both groups are quite different, there are two things similar which are; to be able to talk and work with friends at the same space during the learning stage will make students feel relaxed, and due to relaxation, students have fun with learning. As most of the students focus on friends regarding the aspect of work and interaction, therefore, students have demand and attitudes concerning learning and space in the period of learning, such as creative ideas are more important than space, talking to nice people leads to the occurrence of creative ideas and inspirations, space management for new things are necessary because it supports the explosion of imagination, etc.

Apart from the students focusing on space as a main issue, resources and technology are also important that will support the learning process. Even though internet or social media

plays an important role these days, but from the learners' point of view, social media does not cover all they needs, thus, books are still the most important factor that students need and use for research. Furthermore, the students from the Faculty of Archeology and the Faculty of Decorative Arts provided a reason that, books are more reliable than information obtained from the internet and once you know what you want to research, you can find such information faster than the internet.

After research, students will move to the process of implementation. During this process, most of the students choose to work with friends at the same place because they believe that even though work can cause stress, but being with friends they will feel more relaxed. Most of the students from the Faculty of Decorative Arts will gather to work at some of their friends' houses as there is not enough space at the faculty.

For the students of the Faculty of Architecture, the main space they are using is the studio at the faculty as there are varieties of equipment and it is convenient. And students from the Faculty of Archeology and the Faculty of Painting Sculpture and Graphic Arts, they still use the space at the main library with their friends, even though their work is not a group work. Most of these students bring their own laptops and plug in to the main library's power. However, there is a problem that sometimes there were not enough power sockets.

Although some of the students choose to use the space at the main library, the students of the Faculty of Architecture agreed that the library's space is not appropriate for the creation of work because it is noisy, but a coffee shop is a better place for inspiration and concentration because it provides the feeling of relaxation and good atmosphere.

During the process of work creation or implementation, the issue that all students experienced is the stress from work such as sometimes they were confused or could not work very well, and what they needed for the stress is to relax. Most of the students share the common way of relaxation which is using the relax space around the university such as gardens, seats in front of classrooms, restaurants, or coffee shops.

The last process after the learning process is the post learning, it is about the presentation of work to teachers in order to get suggestions. Most of the space that is being used in this process is classroom, exhibition hall or studio, which each of students might feel relieved or worried if their work will be approved or not.

Conclusio

From activities during the exploration process, beside the empathy map and emotional customer journey map, the researcher also obtained additional information during the

activity of observing and shadowing by completing interviews during the activity, and can be divided as follows;

Regarding the space, most of the library officers and students agreed that there is a limitation about space management, including both the inside space and surroundings. However, according to the need of space that can support group work with equipment and resources such as computers, the main library is the most appropriate space for this need. Therefore, the number of users is in large amount, leading to a crowded and noisy space. The library noticed the problem as it is not convenient for those who need a quiet space. In addition, it was found that the interaction between the service provider and users are at the very least, so the communication regarding rules and services did not reach many users.

Regarding the learning space development, it is revealed that the service provider intended and aimed to develop the library service for a better service such as, how to do the effective library advertisement, how to avoid the feeling of not wanting the users to pay for the fine, how to adjust the service to make it more suitable for the users, will the library look good after renovation, or how to create more space in the library. In addition, it included the aspect of digital and technology as well; it was found that both the service provider and the users agreed on the same aspect such as, the development of current resources to be digital in order to support the same need, or the trend of using e-book or e-journal more than newspapers but at Wang Tha Phra, it goes against the trend, so there should be some development.

From data collection regarding the user behavior and the service provider' opinions, it can be analyzed and group into two models: the first model; the space of this model focuses on the support of learners' learning behavior that aim to get useful information, the need of well managed space and the space that can support various activities and big groups, having up-to-date resources and are convenient to use. Furthermore, this model of space should create a good and relax atmosphere in order to make it perfect for exchanging opinions.

The second model: this model of space is suitable for support the group of students that aim to have creative ideas and imagination, as well as need new and fresh inspiration from the learning process. Thus, this kind of space focuses on physical condition and surrounding factors such as size, surface, light, noise, and the position of equipment, which all of these affect the learning process of this group of students. Moreover, it is required to have a space that is private, relaxed and offers imagination without limitation and technology that supports work development.

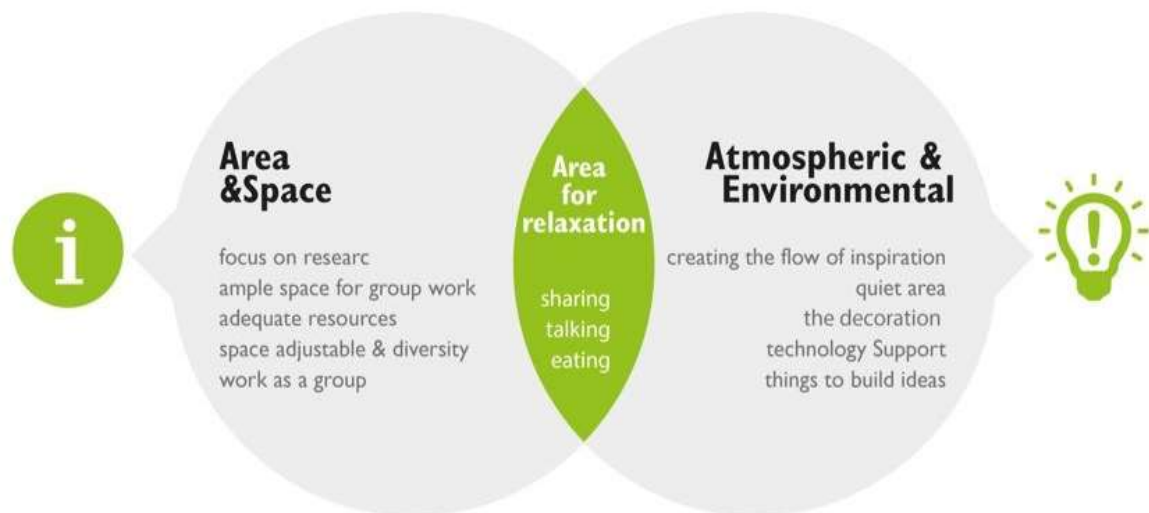


Figure 9: A summary of user needs from Emotional Customer Journey Maps

The emphasis of communication and exchange opinions is considered as the important factor for the learning process of both groups of learners. It revealed that during the learning process, there is usually stress and most of students need to relax. So, when there is a relaxed learning, students will enjoy learning more. Hence, apart from a good art learning space that offers benefits to students to have a good learning process, art learning space should be a place where students at all ages and any genders can find themselves together with others from having social interactions, doing activities, and spending time in the university. These are the things that technology and other information resources cannot provide, thus, universities should provide chances for students to try to live their lives in order to find various ways to develop their identities.

Further development

The researcher will use the obtained data from this research as support information in order to study Service Design for Thai Arts and Design Creative Learning Space in the second step; the creation, which is the step of concept creation for art and design learning space service.

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