

# **Pupils in Lower Secondary Schools in Central Vietnam Improve their Empathy towards Local People and Perception of Traditional Craft Village Preservation through Project-based Learning**

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## **Abstract**

“Project-based learning (PBL) is a model that organizes learning around projects”(Thomas p.1, 2000). Projects are authentic tasks closely linked to learners' daily lives. By being engaged in projects, learners not only develop the 21st century skills but also promote their awareness of and care about surrounding environment and people. This research examines how the pupils in two lower secondary schools in Quang Nam, a province in Central Vietnam, develop their empathy towards the local people and improve their perception of preserving three traditional craft villages (sedge mat making, blacksmith and noodle making) when they participate in the UNESCO-funded project-based learning project.

## **Introduction**

John Dewey- an American educator, described a society as “a number of people held together because they are working along common lines, in a common spirit, and with reference to common aims. The common needs and aims demand a growing interchange of thought and growing unity of sympathetic feeling” (p. 10, 2001). The significance of education is to equip students to be ready in such a society. However, in reality, although the school is often seen as a miniature society, it lacks activities in which students are working together to develop the common spirits and aims. John Dewey provided two pictures: one picture with silence: students sitting in the fixed classroom, learning certain lessons, to be recited to a teacher; the other with noise: student doing various things, not holding books, not arm folding. In the former picture, the school’s aim is to reach the final learning result in a secure way. In the latter picture, the teacher feel frustrated about whether their students could reach the expected outcome in such a bustle learning environment. However, this environment makes students to develop a “spirit of social cooperation and community life”.

The learning project is also a type of workshop that John Dewey mentioned, where the student communicate with the real community to experience, to do research, to link the classroom knowledge into the real life, to grow skills and “grow the unity of sympathetic feelings” (Dewey, p. 10, 2001). The learning project is designed based on the project based learning(PBL)

pedagogy. There are different definitions on the Project Based Learning. Thomas (2000), after reviewing different concepts and approach in research and practice of PBL, indicated the following defining criteria of PBL which can be different from the other pedagogy: “centrality, driving question, constructive investigations, autonomy, and realism.”(p.3)

- “PBL projects are central, not peripheral to the curriculum”: In this sense, the project is not an add-on to the traditional curriculum; it is a curriculum in itself. Students learn new concepts via projects.
- “PBL projects are focused on questions or problems that "drive" students to encounter (and struggle with) the central concepts and principles of a discipline”. The starting point of a learning project is driving questions which are linked to student’s life problem or to the concept presented in the classroom. By getting involved in the project, students seek the answer to the questions. The process of seeking answers becomes meaningful learning.
- “Projects involve students in a constructive investigation”: During the implementation of the learning projects, students not only sit and seek the answer in the available information sources but also communicate, inquire and build knowledge. The involvement of the students are from planning, implementation to monitoring and evaluation
- “Projects are student-driven to some significant degree”: There are different levels of the teacher intervention in learning projects which lead to different extent of student-driven mechanism. An ideal learning project is to provide the ownership and responsibilities to the hands of students.
- “Projects are realistic, not school-like”: This criterion emphasizes the main characteristic of PBL- authenticity. This characteristic is expressed from the topic, the tasks, the products, the way of communication and working.

In the PBL, students are able to improve the 21<sup>st</sup> century skills. From planning to implementing project, students communicate and collaborate with each other and with others, think critically about the driving questions, create the products. Moreover, the learning project is a self-directed learning approach in which students self-direct the direction of exploring the knowledge and self-seek the information. They also have to take the responsibilities in many steps of the projects. The project-based learning actually “places students at the center of the learning process” (Broodee et al, 2011) and it creates “independent thinkers and learners” (Bell, 2010). The PBL also promote the technology literacy of students in a way that students take use the technology to collect, process and synthesize the information and data. Different Web 2.0 tools can be used to think, create and share. One element of the PBL which is not documented and deeply researched is whether the PBL have impact on the empathy of the students.

According to Cohen & Wheeler (2004), empathy is a crucial ability which “allows us to tune into how someone else is feeling, or what they might be thinking. Empathy allows us to understand the intentions of others, predict their behavior, and experience an emotion triggered by their emotion.” (p. 163). Empathy was invented by Titchener as a translation of the German word “Einfühlung,” itself a term from aesthetics meaning “to project yourself into what you observe” (Titchener, 1909). However, it is very hard to define this term. There are two approaches: Affective approach which views empathy as an observer’s response to the affective states of the others whereas the cognitive approach shows that empathy involves understanding the other’s feelings (Kohler, 1929 in Cohen & Wheeler, 2004).

In the affective approach, there are four varieties of empathy: (1) the feeling in the observer must match that of the person observed. (Eisenberg & Miller, 1987; Hoffman, 1984; (2) The feeling in the observer is simply appropriate to the other person’s emotional state in some other way, even though it doesn’t exactly match it (Stotland, 1969) (3) The feeling the observer may be any emotional response to another’s emotion, which is named “contrast empathy” (Scotland, Sherman, & Shave, 1971 in Cohen & Wheeler, 2004).

The cognitive approach focuses on the cognitive process when the observers take roles, switching attention to take another’s perspective (Mead, 1934 in Cohen & Wheeler, 2004), or “decentering” (Piaget, 1932). This cognitive process also involves the process of setting aside one’s own current perspective, attributing a mental state (or “attitude”) to the other person (Leslie, 1987).

Empathy is the interplay between these two approaches. To measure the empathy, there are different instruments: Chapin Social Insight Test (Chapin), Rating Scale (Dymond, 1949, 1950), Empathy Scale (Hogan, 1969) and Interpersonal Reactivity Index (IRI) (Davis, 1980). In this study, we employ the IRI in a part of the study. The IRI has a list of 28 questions of 4 sub-scales: perspective taking, empathic concern, personal distress and fantasy. In this study, we use the IRI which focuses on the perspective taking and empathic concern.

The study takes place in Quang Nam Province which has more than 60 traditional crafts. Among them are sedge mat making, bronze casting, noodle making, conical hat making and pottery making. Several traditional crafts are in the danger of extinction since the young generations are no longer motivated to inherit the traditional craft expertise from their families. In some traditional craft villages, the waste from production causes the pollution in the environment.

This study seeks to answer the following research questions:

1. Does the learning project “study on the traditional craft villages” help the students develop the empathy towards the local people?
2. Does the learning project “study on the traditional craft villages” increase the perception of preserving the traditional craft villages?

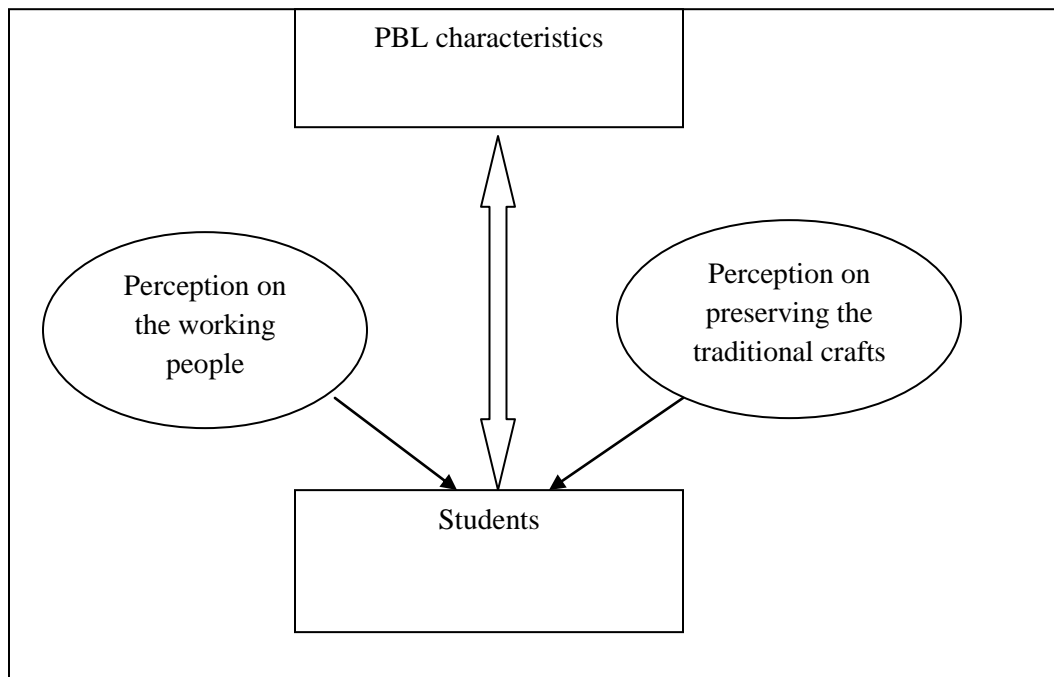
## Methods

### *Research Context and Participants*

The participants in this study were 30 pupils (15 boys and 15 girls) at 8<sup>th</sup> grade (at age 14) of Nguyen Du and Chu Van An Lower Secondary School (LSS), Quang Nam Province, Vietnam where the learning project “Study on the traditional craft villages” took place. These schools were located on the central of Quang Nam Province, which was distant from the traditional craft villages where the project took place. The students from Nguyen Du LSS are grown up in the middle-income well-educated family while the students from Chu Van An LSS are from the working people and live in the rural areas. This was the first time these pupils participated in the learning project and studied on the traditional craft villages. There was only one (out of 30) pupil whose family makes the traditional craft (noodle making) and two pupils were living in the traditional craft villages. The students were divided into three groups to go to the 3 traditional craft villages to observe, do interview and experience. After the fieldtrip, the students made articles about the villages and shared them with the other peers, teachers and community.

### *Research design*

This study adopted the exploratory research design which aimed at providing insights and understanding of whether the learning project on the traditional craft villages influence the empathy of the students involved and their perception toward traditional craft village preservation.



### *Instruments*

The tools deployed in this study were the survey and the focus group interview.

The survey was conducted in the pre and post learning project implementation. The first survey included 9 dichotomous questions and 3 open questions on assessing the empathic concern, Perspective Taking and Personal Distress. The follow up survey was the same as the first survey. In addition, one more question on the most memorable, memories from the learning project was added into the follow up survey. The 9 questions were selected and adapted from the list of questions of IRI (Davis 1980). The 9 questions included: (1) 4 Empathic Concern (EC) questions; (2) 1 Perspective Taking (PT) question; and (3) 3 questions on Personal Distress (PD). In the original IRI, the questions were formulated in the internal level of measurement from Low to High. Since the research target group was 8<sup>th</sup> grade pupils who were assumed not able to identify the differences between levels, the questions only provided the yes-no-don't understand answer options. After the follow up survey, the results of the two questions were not valid to be included in the final study result (1 EC question and 1 Personal Distress question- these questions used the double negative which were not able to be understood by the pupils). To measure the empathy of the pupil, the researcher focuses on the result of 3 Empathic Concern questions and 1 Perspective Taking question.

The topics of the open questions were:

- List of the traditional craft villages;
- The preservation and development of the traditional craft villages;
- The measures of preserving the environment of the traditional craft village;
- Your most unforgettable memories from your learning project.

An interview was conducted after the learning project completion. The interview included 13 questions. There were 5 out of 13 questions related to the empathy of the students to the local people and traditional craft village preservation.

## Findings

### *Research question1:*

The findings from the IRI first survey and follow up survey in Nguyen Du LSS and Chu Van LSS are presented as follows:

Instruments	Nguyen Du LSS (Group1) Mean	Chu Van An LSS (Group2) Mean
IRI first survey	3	3.9
IRI follow up survey	3.3	3.7

*Table 1: The result of the IRI of Nguyen Du LSS and Chu Van An LSS before and after the project*

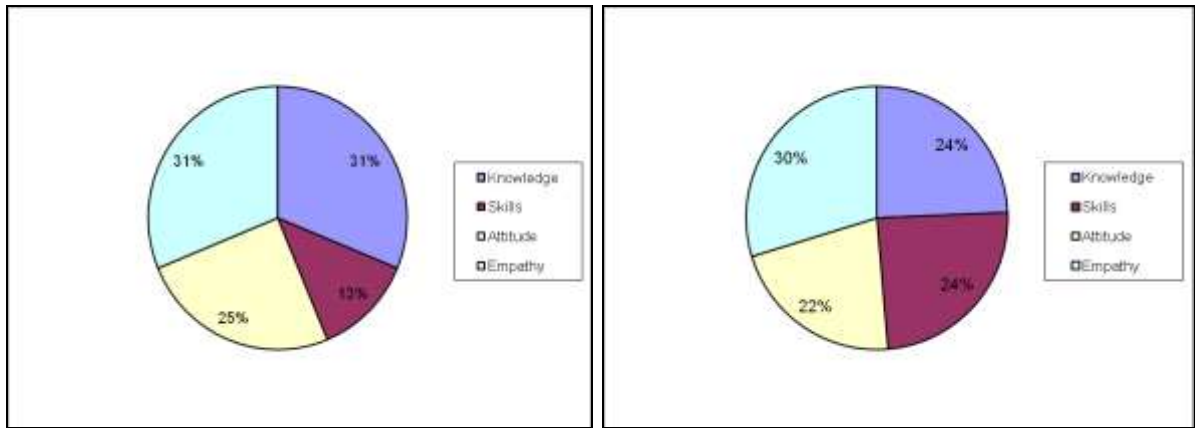
As shown in the table 1, there is significance different between the two groups in the first survey (Mean: 3 versus 3.9). Since the difference between the two groups is the family background, it is assumed that the empathy of the children (in this study) who are living in the working families is higher than the empathy of the children with the wealthy families.

The P value of dependent t-test shows that of Group1 is  $0.166 > 0.01$ , Group 2 is  $0.162 > 0.01$ . It shows that the difference in the two groups on the empathy before and after the learning project is not significant. The assumption may be that the IRI four questions are not able to reflect the holistic empathy of the students who are involved in the project. The alternative instruments could be the combination of the Chapin Social Insight Test (Chapin) and the Rating Scale (Dymond). In the Chapin Social Insight Test, the subject is given different scenarios and answer options. From the answer option, the subject is evaluated the empathy. In the Rating Scale of Dymond, a group of the subject was put together to interact each other and evaluate the empathy each other. In this learning project, the scenario could be the traditional craft village in which student would experience the working of local people and interact with them. During the research, the students could evaluate the empathy to each other. After the research, the students could select the appropriate answer to the scenario and problem.

In the last question of the survey “*Please tell us your thoughts about the projects and your most unforgettable memories from the project*”, the students express their thoughts and feelings about the project. The answers of the students are categorized into 4 aspects:

- Knowledge: what kinds of knowledge the students have attained from the learning project;
- Skills: what skills the students have improved from the learning project;
- Attitude: what feelings and attitudes they gained from the learning project;
- Empathy: to what extent the students develop the empathy towards the local people in the traditional craft villages.

The result is as follows:



Nguyen Du LSS

Chu Van An LSS

*Graph 1: The insights about the projects in four categories in Nguyen Du LSS and Chu Van An LSS*

From the above graphs, the students in both schools put the equal extent of interest on empathy (in comparison with the other aspects such as knowledge, skills and attitude) when they share their insights about the learning project. In terms of the Perspective Taking, when the students experienced making things in the traditional craft village, they understood more the hardworking of making the daily things: *“The picture of the labor people touched my heart. I thought to myself that I had been very indifferent. I often eat noodle but never pictured how tough and difficult the noodles are made. Sometimes when I didn’t finish my noodle, I threw the leftover away. Now I feel this action was like to stampede on the labor of the working people. (Group 1, Student 1). “I think kneading dough is the most difficult step in making noodle. If my parents make noodles, I will help them knead dough” (Group 2, Student 2).*

In terms of the empathic concern, the students shared, *“Since I have participated in the project, I have felt very sorry for the people who put so much effort and work to make a mat. However, the labor is not satisfactorily compensated. (a mat is only 45,000 VND)”(Group 2, Student 3).* The level of the empathy is at highest level when the students show their empathy not only on the local people in the traditional craft village but also on the labor people in general: *“I am aware that I should love the surrounding people, grateful for the people who make the things because they put a lot of time, effort and sweat to make this.”(Group 2, Student 2); “After the learning project, I understood that the difficulties of the labor people nowadays. It is very tough to earn living. [...] Therefore, we should be empathic to the working people. We should not disrespect them when they do not have favorable conditions as ours” (Group 2, Student 3).* From loving and feeling empathic for the local people, the students expressed that after the learning project they respected more the traditional craft things. *“Through these memories, I love more the noodle making and respect the noodle”. (Group 1, Student 2), “Through this project, I know that making noodle is not easy. I feel I love the labor more.” (Group 2, Student 1).*

*Research question 2:*

There are two main questions in the survey addressed this research questions:

- According to you, how you yourself and your community do to preserve and develop the traditional craft villages?
- List some measures of preserving the environment of the traditional craft villages

To the former questions, the result is as follows

Instruments	Nguyen Du LSS	Chu Van An LSS
	Mean	Mean
First survey	1.0	2.4
Follow up survey	1.9	2.3

*Table 2: Measures of preserving the traditional craft villages of the students in the two schools (Mean score)*

From the table 2, there is a significant difference between the number of measures before and after the learning project of the students in Nguyen Du LSS (1.0 versus 1.9). The measures of preserving the villages which were most listed were doing propaganda to community on preserving the traditional craft villages, studying on the traditional craft and teaching the crafts to young people. After the project, the students also listed some other measures such as using the traditional craft products, being proud of the traditional craft villages, learning how to make the traditional crafts and finding the equipment to help make the traditional crafts (*More details are shown in the table 3*). With this new list, it is apparent to see that by going to the fieldtrip and experiencing by doing, the students are more aware of preserving the traditional craft villages. They realized that the responsibility of preserving the village is not only of the local people living there but also of themselves at their age.

Item	Before the learning project			After the learning project		
	ND LSS	CVA LSS	<b>Total</b>	<i>ND LSS</i>	<i>CVA LSS</i>	<i>Total</i>
Do propaganda	8	5	<b>13</b>	<i>13</i>	<i>10</i>	<b>23</b>
Study on the traditional crafts	1	4	<b>5</b>	<i>4</i>	<i>5</i>	<b>9</b>



Teach the crafts to the young	3	3	<b>6</b>	1	2	<b>3</b>
Broaden the traditional crafts	2	5	<b>7</b>	3	2	<b>5</b>
Respect the traditional craft products	1	2	<b>3</b>	1	3	<b>4</b>
Use the traditional craft products	0	3	<b>3</b>	2	2	<b>4</b>
Preserve the traditional craft villages	0	2	<b>2</b>	4	1	<b>5</b>
Be proud of the traditional craft villages	0	2	<b>2</b>	0	1	<b>1</b>
Learn how to make the traditional craft	0	2	<b>2</b>	0	2	<b>2</b>
Preserve the history of the traditional crafts	0	0	<b>0</b>	0	3	<b>3</b>
Find the equipment to help make the traditional crafts	0	0	<b>0</b>	0	1	<b>1</b>
<b>Total</b>	15	28	<b>43</b>	28	32	<b>60</b>

*Table 3: Numbers of measures of preserving the villages listed by the students in the two schools before and after the project*

To the latter questions, the result is as follows

Instruments	Nguyen Du LSS Mean	Chu Van An LSS Mean
First survey	1.0	2.0
Follow up survey	1.6	2.4

*Table 4: Measures of preserving the environment of the traditional craft villages of the students in the two schools*

The table 4 shows that there is significant difference in listing the measures of preserving the environment of the villages of Nguyen Du LSS. The most important measures to preserve the environments were “do not litter”, processing the waste (water, product waste) before disposed to the environment and keep the hygiene in production. After the project, ten out of thirty students also mentioned that keeping the air clean was very important. Two students said that using new technology to process the waste and chemicals is a way to preserve the environment. The students were also aware that if they saw in one village the environment was polluted, they would inform the government. (Table 5)

Item	Before the learning project			After the learning project		
	ND LSS	CVA LSS	<b>Total</b>	<i>ND LSS</i>	<i>CVA LSS</i>	<i>Total</i>
Process the waste	2	2	<b>4</b>	2	5	<b>7</b>
Do not litter	8	7	<b>15</b>	10	13	<b>23</b>
Recycle/Reuse	2	1	<b>3</b>	4	2	<b>6</b>
Plant trees	1	0	<b>1</b>	0	1	<b>1</b>
Keep the hygiene	2	5	<b>7</b>	7	4	<b>11</b>
Do propaganda	1	1	<b>2</b>	0	1	<b>1</b>
Use clean materials	0	0	<b>0</b>	1	0	<b>1</b>
Make the garbage storage	0	0	<b>0</b>	1	0	<b>1</b>
Inform the government if the environment is polluted	0	0	<b>0</b>	1	1	<b>2</b>

Filter the chemicals	0	0	<b>0</b>	1	0	<b>1</b>
Keep the air clean	0	0	<b>0</b>	6	4	<b>10</b>
Use the new technology to filter the waste	0	0	<b>0</b>	0	1	<b>1</b>
<b>Total</b>	16	16	<b>32</b>	33	32	<b>65</b>

*Table 3: Numbers of measures of preserving the environment of the villages listed by the students in the two schools before and after the project*

From the above result, it is clearly shown that by observing the environment in the villages, the students are more aware of different helpful way to preserve the environment.

### **Conclusion**

The goal of the study is to identify whether by being involved in the learning project on the traditional craft villages; the students improve the empathy towards the local people and enhance the perception on the preservation of the traditional craft villages. Concerning the empathy, the study shows that the IRI may not be the ideal instrument to measure the empathy of the students in this study since the IRI is to evaluate the empathy in general and not so much in the context. Before the project, the empathy of the students of Chu Van An LSS is much higher than of Nguyen Du LSS. It is assumed that the different living condition of the two group of students (ones – the student in Nguyen Du LSS living in the working family, and the others in the wealthy families) partly determines the empathy levels of the students. During the project, the students in both schools improved the empathy relatively. This shows that the PBL in this case helps improve the empathy of the students. This may be because the learning projects' characteristics which provide an environment for the students to communicate, to experience and to reflect. In terms of the perception of preserving the traditional craft villages, the research shows that the learning project has made the students to be more aware on how to preserve the villages and the environment not only by the community in general but also by their own. The study employed the exploratory research approach in mind that the relation of PBL and empathy needs further the research.

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