

# Teaching Factory Concepts of Learning in the Batik Course and its Relevance to Students Character Education at SMK 5 Yogyakarta

Henny Rahma Dwiyantri, I Ketut Sunarya, Moh. Rusnoto Susanto, Rahayu Retnaningsih, Insanul Qisti Barriyah, Sugiyamin

*Abstract--To achieve a successful education, several learning concepts can be implemented in many ways. Among them are applying the right training methods and strategies for an activity in the teaching and learning processes, so that the objectives of the learning process can be achieved well. Teaching Factory is one of the concepts of learning in Vocational Schools (SMK) that are applied to vocational schools whose teaching and learning processes are based on the actual stages of work in the industrial world. In the application of teaching factory learning concepts in the batik course through the Creative Batik and Textile Craft Expertise Program. It is expected that positive values can improve students' abilities in terms of academic life, personality, and students' character education compared to the use of other previous learning concepts. Responsibility is one of the characters that are processed through learning practices that will affect students. Responsibility is a positive character embedded in students' characters, so that they will always be aware that they are accountable for their daily life.*

**Keywords - Teaching Factory Learning, Character Education, Batik Course**

## I. INTRODUCTION

Is one of the main milestones in people's lives. Because of education, people can improve their knowledge and skills, and can become better and better quality people. Education contains moral values related to the quality of each individual. Without education, individuals cannot develop well in terms of thinking, creativity, and in dealing with problems and other matters related to the thinking ability. Education is important for people's lives, therefore, at this time it becomes the primary needs of humans after clothing, food and shelter. This is evidenced by the increasing number of people who are aware of education. The more people are highly educated, the less they are illiterate.

Speaking of the Entrepreneurship Teaching Factory Plan and Value, Agung Kuswanto [1] states that vocational schools aim to produce students who have life skills in accordance with their fields so as to be able to live independently in the community.

### Revised Manuscript Received on May15, 2019.

**Henny Rahma Dwiyantri**, Graduate Program, Universitas Negeri Yogyakarta Yogyakarta, Indonesia.

**I Ketut Sunarya**, Graduate Program, Universitas Negeri Yogyakarta, Yogyakarta, Indonesia.

**Moh. Rusnoto Susanto**, Department of Art Education, Universitas Sarjanawiyata Tamansiswa, Yogyakarta, Indonesia.

**Rahayu Retnaningsih**, PEP Study Program, Universitas Sarjanawiyata Tamansiswa, Yogyakarta, Indonesia.

**Insanul Qisti Barriyah**, Department of Art Education, Universitas Sarjanawiyata Tamansiswa, Yogyakarta, Indonesia.

**Sugiyamin**, Department of Art Education, Universitas Sarjanawiyata Tamansiswa, Yogyakarta, Indonesia

One way to achieve this goal is through the entrepreneurial learning. Planting the values of entrepreneurship in schools can be done through the teaching factory. It examines the teaching factory planning that includes the identification of needs and problems, policies, strategies, development, and preliminary evaluations based on theoretical and empirical studies

Education has many benefits for each individual, one of which is to improve one's quality in the cognitive or knowledge domain. Education will indirectly increase one's dignity in the eyes of others because the quality of one's life education will increase and can reach quality human resources, so that it can provide positive benefits for others.

To achieve the successful education, some learning concepts are required to be implemented in a wide variety of ways. The process of learning activities can be carried out by applying appropriate learning methods and strategies for an activity in the teaching and learning processes, so that the objectives of the learning process can be achieved properly and expectedly. Teaching factory is one of the concepts of learning in Vocational High Schools (Vocational Schools) that are applied to vocational schools recently. As the name implies, the teaching factory learning concept means a factory-based teaching and learning process that refers to jobs and workers in the real industry world. Thus, in each stage of the work as in the industrial world, one competency is divided into several jobs in accordance with the order of the workers' respective abilities. Batik course at SMK Negeri 5 Yogyakarta is one of the competencies that has long existed in the Creative Textile and Batik Creative Craft Expertise Program at SMK Negeri 5 Yogyakarta in addition to Weaving, Sewing, *Makrame* and Screen Printing. As a city of batik, Yogyakarta undoubtedly has not only vocational schools where batik competency is of paramount importance, but also all elementary, junior and senior high schools where the Batik course has been taught a local content course. This is one of the ways to preserve batik through the young generations, so that they can get to know not only the batik motifs but also the process and engineering of making it considerably.

In making a piece of batik cloth, special skills are needed, not only in terms of creativity, but also patience. To make and finish a piece of batik cloth will take time, or it can take days or even weeks depending on the level of difficulty of the motifs. For this reason, certain attitudes are needed to



complete a piece of batik cloth. Speaking of attitude issues is associated with batik work, and several things must be considered, so that the objectives of making batik can be achieved well. One of them is to embody the students' character. Character education is very important for them, especially those who take the Textile and Batik Creative Craft Expertise Program. Further research is needed to find out the relationship and influence between the concept of teaching factory through the batik course and the students' character education. In short, the purpose of the teaching factory learning concepts can be achieved.

The teaching factory learning concepts are applied in the batik course through the Creative Textile and Batik Creative Craft Expertise Program. It is expected that positive values can improve students' ability in terms of academic life, personality, and students' character education compared to the use of other previous learning concepts. The extent to which students can understand the concepts of teaching factory learning and how the attitudes of students in the process of teaching and learning activities (KBM) can be accommodated in the batik course, so that the purpose of teaching factory learning concepts can strengthen students' character education and quality. Making batik takes a short time, but the process of making batik itself goes through difficult stages, and special skills and patience are needed to produce a beautiful and noble batik work. These stages include the work of designing batik motifs, tracing in the *mori* cloth, *nglowongi*, *ngisen-isen*, *nemboki*, coloring to finishing *nglorod*, which is one way to produce a batik cloth.

## II. METHOD

This research used a qualitative descriptive approach through which the researchers described all visual data from the results of direct observations and interviews with students of the Creative Textile and Batik Craft Design Department in relation to their creativity in creating batik designs after using the teaching factory learning. Observations undertaken by the researchers during the research took place in the batik room of the Creative Batik and Textile craft expertise program at SMK Negeri 5 Yogyakarta at different hours and on different days. Interviews were conducted by the researchers directly during the observation to obtain data in the form of descriptions or explanations of the observations. In terms of documentation, the researchers took photographs, and recorded interviews. During interviews and data collection, they got a collection of portfolios from respondents. Additional documentation outside the data collection was much-needed as well because it was necessarily related to the topic under discussion.

## III. DISCUSSION

The results of this study are set to support the development of students' creativity in making batik in the Textile and Batik Creative Craft program. Besides, it also adds insight into developing teaching factory learning concepts for vocational schools regarding the concepts of teaching factory learning as well as other pertinent things. Based on observations & interviews, some research results can be highlighted, as follows:

### a) Concepts of Teaching Factory Learning for Students of Textile and Batik Expertise Programs

In general, the purpose of education is to foster students to reach their maturity process, which means that they can determine their own destiny and take responsibility for themselves. Educators must have and determine their own life goals, so that they will know where they can educate their students. As we know, the goal of national education is like the ultimate goal of all educational institutions, either formal, non-formal, or informal throughout Indonesia. Education and teaching in schools play an important role because families and parents cannot possibly educate and teach their children in a society that is as advanced as it is today. The school is obliged to help the family or parents to educate and teach their children. Successful education in the schools is influenced by education in the family. Family education is fundamental or the basis of further children's education Ngalim[2]. In reality, family members make mistakes in educating children. The general consequences arising from education errors in the family, among others, include stubborn and hard-hearted attitudes, spoiled children, fears, lies, aggression and frustration.

There are several differences in both family and school environments, namely a reasonable educational environment, differences in atmosphere, and differences in responsibilities. To do the tasks, educators and people can collaborate. Educators or good teachers must meet general requirements, such as diploma, physical and spiritual health, piety to God Almighty and good behaviors, responsibilities, and the national spirit Ngalim[2]. Besides these general conditions, of course, many other conditions must be met by an educator or teacher, such as being fair (treating their students in the same way), trusting and liking their students, being patient and willing to sacrifice, having authority over children, cheerleaders (to attract the attention of students during teaching, so that they do not get bored or tired), being kind to other teachers, being kind to the community, mastering courses (teachers must always increase their knowledge, not to be traditional), knowledgeable (the teacher must be someone who has extensive intellectual attention).

Teaching factory learning concept is a factory-based learning model in a sense that the teaching and learning process is adapted to the atmosphere in industries. This is possible in the hope of minimizing the gap between the knowledge gained by students in schools and the real world of work, namely the business world and the industrial world (DUDI). As we all know, the industrial world deals with students who pass the Industrial Practice (PI) or Field Work Practice (PKL) in the company. The hope is that with the Teaching Factory learning, students will be better prepared to face the world of work after graduation, even if they do not close the possibility if they want to continue their studies to the undergraduate level.

The application of the teaching factory learning concepts to the Creative Textile and Batik Creative Expertise program at SMK Negeri 5 Yogyakarta has been running as

it should be. In fact, this not only relates to its implementation but also its human resources. It means that when this program is implemented at SMK N 5, and the Tourism and Arts School category, then the difficulties arise. Because concepts of teaching factory learning refer to the work system in the factory, the work phase is done separately or individually. For example, in working on batik from the beginning, making designs to finishing, going through several stages of work. The stages of work in question include (1) Making designs, (2) Patterning / copying on fabrics, (3) *Nglowongi*, (4) *Ngisen-isen*, (4) *Nembok*, (5) Coloring, and (6) *Nglorod*.

Of the 7 stages of the batik work, if you use the concepts of teaching factory learning, it will be divided into 7 groups of work done separately. The problem is that what is done is an art object, whereas students start working by designing it first, and the design is also original from their own creative work. After the students work on the design, they follow the next stage of work, then the task is not the students' design work, but it can be the work of other students. In this understanding, students will not necessarily "find" the original work again, namely the design to be done in the next stage until it is finished in the finishing stage, but do the advanced work of plagiarism on the fabric which is not the design work.

#### b) Character Education

Education is a place to impart knowledge. Education contains various kinds of knowledge in different fields that can be studied. These sciences have always evolved dynamically in the life of society. Education can be interpreted as science, training and so on, both formally, informally and non-formally. Education is so important for human life, because it can improve the quality human beings. Ki Hadjar Dewantara[3], mentions that education is one of the efforts to provide all essential values, which exist in the lives of people who are cultured, and each new derivative is not only in the form of "maintenance", but also the intention of "advancing" and "developing" culture, towards the nobility of human life.

Basically, the nature of education is to shape the character of a nation. This is very much determined by the spirit, motivation, values and goals of education. Salahudin formulates some features of education in 5 national characters (fairness), including (1) Education is a tip in applying the principles of science and technology for a whole human formation. (2) Education is a process of human interaction which is marked by a balance between the sovereignty of students and the authority of educators. (3) Education principles last any lifetime. (4) Education is an effort to prepare students to face an environment that is undergoing greater changes. (5) Education improves the quality of personal and community life Anas[4]. According to Aunillah[5], character education is a system that instills character values in students, which contains components of knowledge, individual awareness, determination, and the willingness and action to carry out values, both towards God Almighty, fellow human beings, environment, and nation to improve the quality of academic life.

According to the Ministry of National Education, character education functions as (1) the development of

basic potential, so that "good heart, good mind and good behaviors" can be achieved. (2) the improvement of unfavorable behaviors and strengthening of good behaviors, and (3) the cultural filtering that is not in accordance with the noble values of Pancasila Anas[4]. Teaching factory learning is a learning model in production / service-based vocational schools that refers to the standards and procedures applied in the industry and is carried out in an atmosphere like what happens in the industry. The implementation of teaching factory requires the absolute involvement of the industry as the relevant party assessing the quality of education outcomes in Vocational Schools. The implementation of teaching factory (TEFA) must also involve the government, local government and stakeholders in making regulations, planning, implementation and evaluation.

Based on the TEFA Guidelines The PMK Directorate, the implementation of teaching factory is divided into 4 models, and can be used as a mapping tool for vocational schools that have been implemented using TEFA, as follows:

- (1) The first model, the Dual System in the form of field work practices is a pattern of vocational learning in the workplace known as the experience-based training or the enterprise-based training.
- (2) The second model, Competency Based Training (CBT) is a learning approach that emphasizes the development and improvement of students' skills and knowledge in accordance with job requirements. In this model, the assessment of students is designed to ensure that each student has achieved the skills and knowledge needed in each competency unit taken.
- (3) The third model, Production Based Education and Training (PBET) is a production-based learning approach. Competencies that have been possessed by students need to be strengthened and ascertained of their skills by providing knowledge of making real products needed in the world of work (industry and society).
- (4) The fourth model, Teaching Factory is the concept of industry-based learning (products and services) through a synergy between schools and industries to produce competent graduates based on the market needs.

Nuryake Fajaryati[6] intitled Evaluation of the Implementation of Vocational Teaching Factory in Surakarta, states that evaluation of the implementation of vocational teaching factory in Surakarta aims to find out the process of implementing the factory teaching at SMK in Surakarta. This research is a descriptive study along with a formative-summative model of evaluation approach by Scriven which emphasizes a formative evaluation. The study population was all vocational schools in Surakarta that ran 9 teaching teaching factories and the respondents involved 81 skills of competency teachers who ran the teaching factory in the school.

The development of Teaching Factory-based Learning Systems in Vocational Teaching Factory program is a blend of existing learning, namely Competency Based Education

and Training (CBET) and Production Based Education and Training (PBET) in a sense that a process of expertise or life skills is designed and implemented based on actual procedures and working standards (Standard Operation Procedure) to produce products in line with the market/consumer demands.

#### IV. CONCLUSION

Teaching factory has a new space for vocational education at the vocational level that provides real practice supplies for students. This obviously has a positive impact on students. In addition to concrete experiences, students are also required to have a positive character related to supporting the work. The characters in question can be creative, responsible, unyielding, disciplined, and certainly skilled. This will be very beneficial for students' lives when they enter the workforce that is linear with their current education. However, it has become a phenomenon in the world of vocational schools where students are prepared to work in the field of education (this time in the field of creative batik and textile). Instead of working outside of that competence, several factors influence this phenomenon, among others, due to economic demands, lack of information on companies that open job recruitments in accordance with the competence, so that in the more extreme realm students are lazy to work. In fact, if we search further, the post-implementation of the teaching factory concepts at schools will minimize the incident. Why? Through this research, we find out that students will have qualified characters in dealing with the world of work from the Teaching Factory. Using this character provision, vocational students should not work according to their irrelevant competence. This in turn shows that Teaching Factory contributes greatly to a change that will support the advancement of vocational education in Indonesia.

On the other hand, through the provision of qualified characters, the purpose of the school as a medium of socialization and positive character development for students will succeed. The concept of Teaching Factory has given a great effect to students, especially in their daily character. Being a creative student is certainly necessary for post-school life later (read: work). When viewed further, this character will certainly have an impact on things that are even further. Just take a creative example. Through creative characters, students will technically be able to explore their imagination and abilities in terms of motifs or designs and the like. Yet, a creative sphere can provide entrepreneurial souls for students by opening new start-ups in the craft industry. Not only is it useful for students, but it will open new jobs for the surrounding. Isn't this a necessity in the end?

Responsibility characters are processed through learning practices that will affect students. In the technical sphere, for example, students will be responsible for the results of their work and able to explore the meaning and process that they go through while producing. Furthermore, being responsible for small things will be a reflection that they will be prepared to take responsibility in producing work in a more macro scope, for example, in the management of workshops. On the other hand, the responsibility as a positive character will be embedded in them, so that they will always be aware

that they are people who are given the mandate to be accountable for their daily life. There are also other positive characters of Teaching Factory that have a big impact on students in the post-education period. Not only are they able to have characters in the technical sphere when producing works, but they are also able to have positive characters in their daily life, so that their competence will benefit the surrounding environment.

#### V. ACKNOWLEDGMENT

I would like to thank my colleagues I Ketut Sunarya, Moh. Rusnoto Susanto, Rahayu Retnaningsih, Insanul Qisti Barriyah, and Sugiyamin for their cooperation in compiling this manuscript. Our gratitude also goes to the heads of the institutions (Director of the Postgraduate Program of Yogyakarta State University, Sarjanawiyata Tamansiswa University (UST) Yogyakarta, SMKN 5 Yogyakarta for the institutional support in the form of scientific publication collaboration, so that we can dedicate knowledge according to scientific disciplines through globally useful scientific publications.

#### VI. REFERENCES

1. A. Kuswantoro, *Teaching Factory Rencana dan Nilai Entrepreneurship*. Semarang: Graha Ilmu, 2014.
2. M. N. Purwanto, *Ilmu Pendidikan Teoretis dan Praktis*. Bandung: Remaja Rosda Karya, 2014.
3. K. H. Dewantara, *Pemikiran, Konsepsi, Keteladanan, Sikap Merdeka (Pendidikan)*. Yogyakarta: Majelis Luhur Persatuan Tamansiswa, 1977.
4. A. Salahudin, *Pendidikan Karakter Pendidikan Berbasis Agama dan Budaya Bangsa*. Bandung: Pustaka Setia, 2013.
5. N. I. Aunillah, *Panduan Menerapkan Pendidikan Karakter di Sekolah*. Jakarta: Laksana, 2011.
6. N. Fajaryati, "Evaluasi Pelaksanaan Teaching Factory SMK di Surakarta," *Jurnal Pendidik. Vokasi*, vol. 2, no. 3, 2012.

