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The Teaching Factory Model and Learning Motivation for the Entrepreneurial Spirit of Vocational High School Students

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ABSTRACT: Teaching Factory has the goal of making students aware that teaching students should be more than just what is in the book. Students not only practice soft skills in learning, learn to work in teams, practice interpersonal communication skills, but also get hands-on experience and work training to enter the world of work later. The purpose of this study was to examine the effect of the Teaching Factory model and learning motivation on the entrepreneurial spirit of SMK students. This study adopted a 2X2 factorial quasi-experimental design. Research data were collected using questionnaire and test methods. The data were then analyzed using the two-way ANOVA statistical analysis technique. The subjects of the study include all students in Class 9 of Junior High School 1 in Situ Azo. The instruments used in this study were the Learning Motivation Questionnaire and the Entrepreneurial Learning Performance Test. The questionnaire used a Likert scale. Commonly used data collection methods in research include: tests, interviews, questionnaires, and observations. Through research, the following results were obtained: (1) There are differences in the impact of the direct guidance teaching factory model on students' entrepreneurship; (2) There are differences in the entrepreneurship among highly educated students. Students with low learning motivation and motivation and (3) There was the interaction between the Teaching Factory model and learning motivation on the entrepreneurial spirit. Based on the results of this study, it was concluded that by using the Teaching Factory model and learning motivation, students' entrepreneurial spirit could be increased. The implication of this research is that the Teaching Factory model can be used as a way to increase students' entrepreneurial spirit.
Keywords: *teaching factory model, learning motivation, entrepreneurial spirit, SMK*

INTRODUCTION

Vocational high school (SMK) is a high school educational institution that aims to prepare a high-quality workforce, which needs to identify potential sources and areas according to industry needs. One of these efforts is through a learning-based Teaching Factory (Jodanayang, Faradina Perdana, 2021; Wulan & Handayani, 2021). Vocational High School graduates need to be equipped with entrepreneurial skills because not all Vocational High School graduates can be absorbed by the industry. The increase in the number of graduates produced by the availability of jobs is still not balanced. Teaching Factory is a learning concept in a real setting, so that it can bridge the competency gap between industry needs and school knowledge (Fattah et al., 2021; Mourtzis, Angelopoulos, et al., 2021b). Innovative learning technologies and productive practices are educational method concepts that are oriented towards student management in learning so that they are in harmony with the needs of the industrial world. Because most people who succeed in this world have a strong learning motivation that drives their

actions. They know well what is their motivation and maintain the motivation to learn in every action.

Siatras et al., (2021) expressed that the idea of Showing Industrial facility was seen as because of three variables, in particular: (1) typical learning isn't sufficient; (2) understudy benefits are acquired from direct pragmatic experience; what's more (3) experiential, group based discovering that includes understudies, showing staff and industry investment enhances the instructive cycle and gives genuine advantages to all gatherings. Showing Processing plant is discovering that expects understudies to create items that are as per market/purchaser requests.

Prianto et al., (2021) revealed that the goal of the Teaching Factory is to make students realize that teaching students should not be just about the content in books. Students not only practice soft skills, learn teamwork, and develop interpersonal communication skills during their studies, but they also gain practical experience and professional training to prepare for the world of work.

In addition, he also pointed out that schools provide production activities or services in the teaching factory, which is part of the teaching process. Therefore, the school must have a factory, workshop or other business unit used for learning activities.

According to the philosophy of Prosser (1950:217), vocational schools are effective when the learning process takes place in an environment that imitates or replicates the actual work environment. Therefore, the goal of the "Teaching Factory" program is to integrate a commercial/industrial environment into a school environment. Students directly perform the same productive activities as production activities the same as those carried out in the business/industry world (Fortunata, 2021; Ary Sunaryo et al., 2021; Sutianah, 2021).

This means students will go through the same learning process that they would experience in a real job. One of the goals that the Teaching Factory program aims to achieve is the development of entrepreneurial skills in a school setting. Entrepreneurs are independent workers with uncertain income (Prasloranti et al., 2021; Sholahuddin et al., 2021). This understanding is the concept of entrepreneurs in the past. Currently, entrepreneurs are not just people who start a business but are those who try to develop their business with courage and perseverance (Kasali, R., et al. 2010). For someone who can be called an entrepreneur, growth or change are the key words.

The purpose of this study was to examine the effect of the Teaching Factory model and learning motivation on the entrepreneurial spirit of SMK students.

RESEARCH METHODS

This study adopted a quantitative approach. The method used is quasi-experiment. This study uses students from Class IX of ABCD as the experimental class, with a total of 38 students, and students from Class B IX as the control class.. The instruments used in this study were pre-test, post-test, observation sheets/observation of student learning

activities and student involvement questionnaires in the teaching factory. The data obtained from the observation/observation sheets, and questionnaires/questions were analyzed using the SPSS 25 program. In this study the hypothesis testing used a significance level of 0.05, which means that the risk of error in drawing conclusions is 5% of 100% truth or truth achieved 95%.

RESULTS

The research was conducted in students of class AB and CD IX by taking a sample of 120 students in class XII of the Mechanical Engineering study program.

Table 1. Research Descriptive Test Results

Descriptive Statistics

Dependent Variable: Student Entrepreneurial Spirit

Method	Learning Motivation	Mean	Std. Deviation	N
Model Teaching Factory	High	70.36	6.741	36
	Low	75.67	5.592	24
	Total	72.48	6.784	60
Direct Instruction	High	62.31	1.797	13
	Low	62.62	1.871	47
	Total	62.55	1.845	60
Total	High	68.22	6.844	49
	Low	67.03	7.157	71
	Total	67.52	7.027	120

As can be seen from Table 1, the students involved in this study are 4 classes, Class IX AB and Class CD, with a total of 120 students. The samples for this study were randomly selected, and the samples were from Class IX-AB and Class IX-AB. student. Class IX-CD. The learning implementation of Class IX-AB adopts the teaching factory model, and the learning implementation of Class IX-CD adopts the direct teaching method.

Table 1 illustrates that applying the teaching factory and direct mentoring models can improve students' entrepreneurial abilities, as evidenced by the learning outcomes achieved by students. Classes IX-AB improved significantly overall, with an average score of 72.48, while students using direct instruction also improved significantly, with an average score of 62.55 at the start of their studies.

As per the perception and computation results, it very well may be seen that in the showing plant model, there are more understudies with high learning inspiration and better normal grades, while in the immediate showing technique, there are a bigger number of understudies with high learning inspiration than understudies with low learning inspiration. Generally speaking, understudies in showing plant and direct

guidance models are bound to have high inspiration to learn (Dwi Mukti and Komariah, 2021; Ari Sunaryo et al., 2021; Utomo, 2021).

As should be visible from the above table, for understudies with high learning inspiration and understudies with low learning inspiration, there is a fundamental distinction between utilizing the showing manufacturing plant model and utilizing the immediate educating strategy. In light of the aftereffects of this graphic computation, contrasts in the learning results of the understudies educated can be made sense of. Following the showing plant model, understudies are shown utilizing direct educating strategies. These distinctions can be tracked down between exceptionally energetic and low spurred understudies and, regardless of whether critical, should be demonstrated through factual estimations. Table 2 shows the two-way ANOVA performed.

Table 2. Factor Analysis of Variance Test Results

Tests of Between-Subjects Effects

Dependent Variable: Student Entrepreneurial Spirit

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3366.452[a]	3	1122.151	51.870	.000
Intercept	437923.226	1	437923.226	20242.598	.000
Method	2656.457	1	2656.457	122.792	.000
Learning_motivation	188.059	1	188.059	8.693	.004
Method * Learning_motivation	148.900	1	148.900	6.883	.010
Error	2509.515	116	21.634		
Total	552896.000	120			
Corrected Total	5875.967	119			

a. R Squared = .573 (Adjusted R Squared = .562)

According to Table 2, regarding the teaching factory model, direct instruction method and learning motivation, as well as the interaction between the application of the teaching factory model and the direct instruction method and learning motivation, it can be explained by the following results: (1) Adopting the teaching factory model and When using the direct teaching method, the significance value is smaller, $\alpha<0.05$, that is, 0.00, which can explain the difference in learning outcomes of IX students. Between classes taught by the direct teaching method and the teaching factory model, (2), the significance value of students' learning motivation is less than $\alpha<0.05$, that is, 0.004, which means that there are differences in students' learning outcomes. Nine. (3) The significance value of the interaction between the teaching factory model and the direct teaching method is less than $\alpha<0.05$, which is 0.010. Therefore, there is an interaction between direct instruction and the classroom. The factory model and learning motivation are effective for Class 9 students. Impact on learning outcomes.

Based on the study results and calculations using two-way ANOVA, it can be explained that this is generally related to the previously proposed hypothesis. Based on

these calculations, it can be concluded that all assumptions based on calculations using two-way ANOVA are acceptable. Specifically, the application of learning methods can explain the differences in learning outcomes between highly motivated and low motivated students in this study due to the use of the teaching factory model and the direct instruction method, given the proposed hypotheses. There is an interaction between learning outcomes. In this study, using the teaching factory model improved student learning outcomes better than using direct instruction methods. Additionally, students who are highly motivated learn better outcomes compared to students with low learning motivation

DISCUSSION

In light of the consequences of exploration, information show, and information examination, the impact of the showing processing plant model and direct showing technique and learning inspiration on understudies' business can be dissected and deciphered as follows.

A. The difference between teaching factory and direct teaching model

Toward the start of learning business, understudies in classes IX-Stomach muscle had a similar business venture learning result. Communicated by business venture learning result worth or experimental outcome esteem, there was no tremendous distinction, that is to say, the worth was 74. This implies that the two examples are homogeneous. norms of the exploration test, so the consequences of the use of the showing manufacturing plant model and the immediate showing technique can give a correlation of the learning results of understudy business. Subsequent to carrying out the showing processing plant model and the immediate guidance strategy in each class as per the examination stage, the outcomes showed that through the utilization of this learning, understudies' enterprising learning results gotten to the next level. This is shown by the consequences of spellbinding estimations for every utilization of learning applied when the use of that learning. It was found that courses showed utilizing a showing processing plant model would be wise to pioneering learning results than courses showed utilizing an immediate guidance approach.

As a rule, the utilization of the showing production line model and direct direction technique can completely figure out understudies' learning inspiration and work on understudies' pioneering soul. The improvement of understudies' business soul can be supposed to be critical, and the t-test importance esteem is lower than 0.05, The distinction in learning results accomplished by understudies in the two classes is huge (the distinction can't be disregarded).

Through computation, it is found that the F number of the learning application factor shows that the F number is more noteworthy than the F table, and that really intends that there are contrasts between classes in the learning applications applied in the

homeroom in this review, utilizing the showing plant model and the immediate guidance technique.

The consequences of these computations show that the proposed speculation that there are contrasts in the learning results of IX understudies is OK. Levels are between IX. The homeroom embraces direct showing technique and showing industrial facility model.

By and large, the Showing Manufacturing plant Model gets a superior Enterprising Soul which in its execution has had the option to run well. Furthermore, there is animation and contribution as well as understudies' perspective about the topic in order to further develop their learning results. As such, the primary targets of the Showing Manufacturing plant learning exercises are accomplished, Or at least, (1) understudies take part in the learning movement cycle as far as possible, (2) the coherent and efficient mix of exercises and learning objectives, (3) understudies structure a believing demeanor towards the consequences of the exhibition showing production line process. What's more, in light of the phases of the Showing Production line Model exercises that have been executed, it very well may be made sense of that in the execution of the Showing Plant Model learning strategy will in general make understudies think and be effectively involved, learning exercises start by defying understudies with the issues they face (Mourtzis, Angelopoulos, et al. , 2021a; Pradipta et al., 2021; Rukmana et al., 2021).

Teaching factory learning is a learning concept in a real atmosphere, so that it can bring students closer to the DU/DI atmosphere. The government implements teaching learning as a factory as an effort to achieve the vision of realizing a Vocational High School (SMK) which can produce graduates with an entrepreneurial spirit who are ready to work, intelligent, competitive, and have national identity, and be able to develop local advantages and be able to compete in the global market . Teaching factory as a learning approach is considered quite efficient for increasing graduate competency. Vocational High School (SMK) is one of the schools that has implemented factory teaching learning, especially in Boutique Clothing Competence. The implementation of teaching factory learning requires mature preparation, because this lesson studies the process of creating activities and also applying industrial culture. Teaching factory learning activities will be able to take place successfully and be successful if the process carried out is good, like DU/DI standards (Kusumojanto & Wulandari, 2020; Muhitasari & Purnami, 2022; Wahjusaputri et al., 2021).

The application of teaching factories in Vocational High Schools (SMK) is by establishing business units or industries within schools (Purnami et al., 2021; Rohaeni et al., 2021; Zutiasari et al., 2021). The implementation of teaching factories in schools is expected to increase student competence, so that in the future schools can produce competent workforce according to their fields. Not only to create competent workforce in their fields, teaching factory is expected to be able to increase the entrepreneurial spirit

for students, creating jobs for themselves or by entrepreneurship is the success criterion of the teaching factory program.

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B. Differences in the entrepreneurial spirit of students with high learning motivation and low learning motivation

While concentrating on understudies' learning inspiration, it was observed that there were contrasts in the enterprising soul of nine understudies. A few classes are separated into two gatherings: those with high inspiration and those with low inspiration. In the utilization of the showing plant model, understudies with high learning inspiration are the fundamental concentration. These understudies are extremely inspired to learn. It very well may be seen from their learning exercises that understudies really want to work on their abilities to pioneer and effectively partake in learning, like seeking clarification on some pressing issues, examining, planning materials before class, doing schoolwork allotted by the educator, and not doing it. activities and so on. Try not to study until tests are around the bend. Exceptionally energetic understudies likewise overwhelm direct guidance. In any case, from the degree of learning inspiration moved by understudies it very well may be made sense of that understudies with high learning inspiration have a higher or better Enterprising Soul contrasted with understudies who have low learning inspiration. Likewise, the educator attempts to increment understudy learning inspiration through a few activities, including: (1) Rivalry (contest), by making positive rivalry between understudies so understudies contend to further develop their learning results, (2) clarifying objectives. Intentions drive people to accomplish objectives. The more clear the objective, the more prominent the worth of the objective for the individual concerned and the more prominent the inspiration in completing an activity, (3) form extraordinary interest, this should be possible with basic things so understudies are keen on learning the material being considered, and (4) holding evaluations or tests, this will urge understudies to learn and get ready themselves to increment learning inspiration.

Basically, the motivation possessed by these students has many benefits to the student's Entrepreneurial Spirit which is useful for: (a) Encourage students to do or act. Functioning as a mover or with a motor that gives power to students to carry out learning activities, in this case the use of the Teaching Factory Model and the Direct Instruction method, (b) Determine the course of action. The realization of the direction of action, goals, prevents the emergence of deviations from the path that must be taken to achieve that goal. This provides a focus for students to carry out learning actions as directed by the teacher, and (c) Selecting actions. This means that students take the necessary actions related to the learning implemented by the teacher. such as conducting discussions, experiments and so forth.

Hamalik (2010) learning inspiration is fundamentally impacted by different elements, to be specific: (a) The level of understudies' mindfulness of the requirements

that drive their way of behaving/activities and familiarity with the learning objectives they need to accomplish, (b) instructor's disposition towards class; educators who are shrewd and consistently invigorate understudies to act towards an objective that is clear and significant for the class, will encourage that inborn quality, yet in the event that the instructor zeros in additional on one-sided improvements, the extraneous nature becomes prevailing, (c) Understudy bunch impact. in the event that the impact of the gathering is areas of strength for too, inspiration will in general be outward, (d) Class air likewise impacts the presence of specific qualities in understudy learning inspiration. A climate of capable opportunity unquestionably invigorates the rise of inherent inspiration in excess of an air brimming with tension and pressure.

Based on the above explanation, we can explain that the second hypothesis is accepted. This means that there is a difference in entrepreneurship between 9th grade students with high learning motivation and low learning motivation.

C. Interaction of Learning Methods and Learning Motivation on Students' Entrepreneurial Spirit

As per the two-factor examination of fluctuation, the determined worth is >F-table and the importance level is under 0.05 (5%), so it tends to be pronounced that there is a connection between direct showing technique and instructing. The plant gives good examples and learning inspiration for IX understudies' enterprising soul. class.

In light of the exploration results, it tends to be made sense of that there is an expansion in Enterprising Soul in each utilization of advancing either by utilizing the Showing Production line Model or by utilizing the Immediate Guidance technique. Understudies who are shown utilizing the Showing Production line Model have a preferable Pioneering Soul over understudies who are shown utilizing the Immediate Guidance technique. What's more, it was likewise shown that understudies with high learning inspiration were generally claimed by understudies who were shown utilizing the Showing Processing plant Model. In the mean time, in the Immediate Guidance technique, understudies with high and low learning inspiration were overwhelmed by understudies with high learning inspiration.

On a very basic level, the expansion in business in each class is inseparably connected to the advantages of the showing production line model itself, as communicated (Gustiar et al., 2021; Islami et al., 2021; Mourtzis, Panopoulos, et al., 2021). Showing Industrial facility is a generally prescribed learning model because of its numerous benefits. (a) It is a learning model that underscores the decent improvement of mental, emotional and psychomotor viewpoints, subsequently learning through this model is viewed as more significant. (b) Give understudies learning spaces that suit their learning styles. (c) This is a model reliable with the improvement of present-day learning brain science, which perspectives advancing as a course of changing conduct in view of involvement. (d) One more benefit is that this learning model takes care of understudies

with better than expected abilities. This implies that understudies who have great abilities to learn won't be hampered by understudies who are powerless in learning, and (e) Don't make the instructor the main wellspring of learning, since understudies advance by using different kinds of learning assets.

In light of these benefits, the use of the learning model utilizing the Showing Production line Model liberates understudies from having the chance to rehearse the Enterprising Soul accurately as per existing arrangements. Pioneering soul will increment. In view of the above portrayal, it tends to be made sense of that the third speculation is adequate, or at least, there is a collaboration between the immediate showing technique and the showing manufacturing plant model and the learning inspiration of class nine understudies to begin their own organizations.

CONCLUSION

Based on the results of the research and discussion conducted, it can be concluded: (1) There is a difference in the entrepreneurial ability of students in Class 9 who adopt the direct teaching method and the teaching factory model, which is reflected in the average entrepreneurial ability of students who adopt the teaching factory model and students who adopt the teaching factory model. Direct teaching method, the teaching factory model achieves better results than classes using direct teaching method. And the value of t count is greater than t table. (2) There is a difference in entrepreneurial ability between students with high learning motivation and students with low learning motivation in grade 9. Students with high learning motivation have better entrepreneurial abilities than students with low learning motivation. Furthermore, this difference is significant, as shown by the t-count value being larger than the t-table. (3) There is an interactive relationship between direct teaching method and teaching factory model and students' learning motivation of students in No. 9 Middle School for entrepreneurship. In the classroom, the results showed that regardless of whether students were high or low in motivation, students with high motivation who were taught using the teaching factory model had better entrepreneurial spirit than students who were taught using direct instruction. Furthermore, it is shown that the calculated F value is larger than the F table.

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