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DACUM in Terms of Industry-Driven Oriented Training Curriculum on Garment-Related Training Programme in Laos

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ABSTRACT

This study aims to analyse the implementation of the development of a curriculum using the DACUM model in the Vocational Training Program in the garment-related training programme in Laos. The approach in this study is qualitative, using a qualitative descriptive method and the data was obtained through documentation analysis. The results showed that the stakeholders in this development process included government representatives, TVET teachers, in-company trainers, and representatives from TWG of the garment sector. The material for the curriculum meets the requirements of the world of work. Moreover, the tools and equipment of the VTIs themselves might need to be more or be updated already.

Keywords: DACUM, vocational training program, curriculum

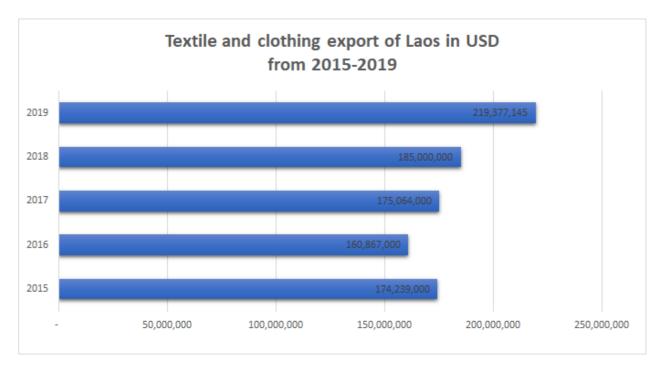
Background

Business competition in various industries is occurring so strongly and rapidly in line with the dynamic environmental changes. Increasing competition level, changes in consumer tastes from time to time, technological advances so fast, and socio-economic changes give rise to various opportunities, Chances as well as challenges and threats in different sectors of business in all fields. One of the most exciting industries to observe in Laos is the Garment industry because the garment industry is one of the main sectors that contributes quite a lot of income to Laos. he material for the curriculum meets the requirement of the world of work

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Source: Lao Garment Export Statistic, ALGI, 2020.

According to the Association of Lao Garment Industry (ALGI), the export of garment products from Laos increased from 2016 to 2019, fluctuating between 160 million to 219 million USD. The major export destinations are EU countries, Canada, Japan, the USA, and others. The high income of Laos from the garment sector makes the growth of the garment industry also become increasingly rapid. Based on data from the Association of Lao Garment Industry (ALGI), there were 78 garment factories in 2019, most of which were located in Vientiane, the capital city of Laos.

Of course, the higher the number of companies, the higher the workforce needed, especially in the garment sector. So it is not surprising that many vocational training institutions offer garment programs and have many students. A vocational training institution is a social education system that focuses on developing particular skills and expertise in students to work well and professionally. This shows that vocational training is related to efforts to prepare someone to work and improve their potential. The vocational training process enables students the importance of mastering knowledge and technology, have work skills, be independent, have effective and efficient attitudes, and want to be successful in their lifelong careers (Maruanaya & Köhler, 2021:17)

Table 1. The number of students enrolled in the tailoring training programme in 2019-2020.

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No	Name of Vocational Training Institution	Total number of students	Number of females	Percentage of females
1	Pakpasak Technical College	73	70	96%
2	Vientiane Province Technical College	224	223	100%
3	Champasack Province Technical- Vocational College	378	361	96%
4	Khammouane Province Technical-Vocational College	372	367	99%
5	Savannakhet Technical- Vocational College	439	421	96%
6	Borikhamxay Technical- Vocational School	20	20	100%
7	Xiengkhouang Province Integrated Technical-Vocational School	13	13	100%
8	Phongsaly Province Integrated Technical-Vocational School	42	42	100%
9	Huaphanh Province Integrated Technical-Vocational School	34	34	100%
10	Attapeu Technical-Vocational School	42	42	100%
11	Xekong Province Integrated Technical-Vocational School	88	87	99%
12	Vocational Education Development Institute	10	10	100%
13	Xaysomboun Vocational School	10	10	100%
Total		1,745	1,700	97%

Source: TVET's student statistic 2019-2020, Department of Technical and Vocational Education, MOES, 2021.

With several vocational training institutions, it is hoped that their graduates can have expertise in the garment sector and can meet the needs of work competencies in related companies. Unfortunately, reality shows that there are still many unemployed graduates. In contrast,

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graduates already working in the garment industry only have the skills required by the

company. This requires companies to provide additional training for their workers during work.

The lack of expertise of some garment workers from vocational education graduates is a big

question mark for the world of vocational education, especially regarding its quality. Based on

information obtained from students and graduates of vocational education, they have difficulty

in practising or working in garment companies because some of the skills they need have never

been learned in school.

Based on the background description above, it is essential to research vocational education,

especially in the garment sector. One point that needs to be studied in the curriculum. The

vocational education curriculum should be following the needs of the labour industry.

Therefore industry should also be involved in curriculum development for vocational

education.

This article will discuss one of the models of curriculum development used by the Ministry of

Education and Sports of Laos, especially for vocational education. The model in question is

the DACUM (Develop A Curriculum) model.

This curriculum development model is considered suitable for vocational training because in

the process the involvement of experts from related industries must be prioritized in the

process. With the participation of these industry experts, schools can update information about

the skills needed in the world of work. By itself, the content and objectives of the curriculum

will be in accordance with the demands of the labour market.

DACUM (Develop a Curriculum)

DACUM or develop a curriculum method was developed in Canada. This method is usually

recommended to create a job requirement-oriented curriculum for a training program. This

method deals with the analysis and description of activities required in the labour market. The

strength of the DACUM is that it is efficient and inexpensive.

The description and analysis of the activities are carried out in a moderated discussion. The

experts play an essential role in this discussion. They are made up of people who have good

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experience in the profession. They practice the activities of a profession themselves, so they

can accurately describe and analyse these activities in a team with the help of a well-qualified

moderator. Through cooperation between the experts and the qualified moderator, the

professional requirement can be determined in a short time.

According to Halbrooks (2003:571) and Valdes et.al (2018:3) the participants in a discussion

consist of

• 5 to 12 experienced specialists or practitioners responsible for the content of the

requirements and job profiles. These experts are a part of the academic, companies, and

government.

• A trained facilitator is responsible for the correct application of the method and the

terminology. It should also enable the exchange of experience and knowledge between

experts.

In the discussion, the experienced people try to list each professional activity in relation to its

areas of responsibility, work tasks and work steps. This allows them to show exactly what

skills, knowledge, and behaviours are expected. This activity usually lasts two to three days.

At the end of the activity, a draft of the professional requirement and activity profile in the

form of the "DACUM Research Chart" comes out as a result (Johnson, 2008:5)

Norton & Moser (2008:4) state that in addition to the moderator and experienced specialists,

there is also the so-called DACUM team, which also takes part in the workshop, including:

• the coordinator is responsible for the activities of the pre-workshop and post-workshop,

such as; Plan workshops, recruiting committee members, publishing DACUM

Research Chart.

• Recorder who assists the facilitator from beginning to end of the workshop. His

responsibilities include: writing the correspondence of assignments and work items on

the cards and putting them on the wall, writing this information on paper at the end of

the workshop, getting the members' attention so that they can write the information

quickly, correctly and neatly.

• Sponsors are promoting the workshop, for example, a company, government or

organisation. They participate in the planning and preparation of the workshop and are

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also present at the workshop to officially welcome the committee members. If

necessary, they can also answer questions.

• Agencies/representatives represent the sponsors. For example, they are managers of

companies, deans of universities, or other people who represent their organisations. The

tasks are e.g. officially welcoming the committee, officially telling the committee why

the workshop should be carried out, and jointly determining how to deal with the

professional activity.

Advantages of the DACUM approach (Johnson, 2010:36)

• The DACUM method is quick to carry out, which is why it is also inexpensive.

• The experts involved can freely express and exchange their ideas and experiences with

good moderation.

• The consensus principle of the DACUM method leads to a high quality of the

workshop results.

The Implementation of DACUM in Vocational Training Program in garment related

training programme in Laos.

The Department of Technical and Vocational Education is a department of the Ministry of

Education and Sports of Laos. DTVE is responsible for Technical and Vocational Education

and Training activities, consisting of 25 public vocational training institutions and more than

70 private vocational training institutions under the umbrella of the Ministry. At the national

curriculum development level, two prominent organisations jointly develop the curricula: the

Department of Technical and Vocational Education and the Vocational Education

Development Institute. DACUM is applied for Lao TVET curriculum development.

It is essential to carry out the curriculum development using the DACUM method to improve

the training and be consistent with the skill needed in the labour market.

The curriculum development workshop was financed by the annual government budget and

mainly from sponsored donors like ADB, and World Bank, which concentrates on the CBT

programme, and GIZ focuses on the DCT programme and TVET teacher training. There are

three kinds of training programmes in Laos: School-based training, Competency-based

training, and Dual-Cooperative Training.

The curriculum development for garment related training programmes also follows the

procedures of the DACUM method. It was a tailoring training programme developed in 2004

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and financed by GTZ. DTVE was the coordinator, and the Vocational Development Centre

(known as VDC - former name of VEDI) was the facilitator. The DTVE organised the

workshop and recruited committee members, including an expert in the garment sector field

from the trade working group (TWG) and trainers from VTIs.

The curriculum development workshop was divided into three workshops: the first and second

workshop was the beginning of the stage of developing the curriculum by carrying out job

analysis of tailoring a training programme to identify duties and tasks which needed; task

verification, section and task analysis in order to analyse selected tasks for steps, the knowledge

required, safety, performance criteria; competency profile to cluster related tasks as appropriate

to form competencies; and curriculum material development in order to develop teaching and

learning guide, learning media, materials and tools and equipment. The third workshop is for

revising and improving and then finalising the developed curriculum.

The Ministry of Education and Sports of Laos will approve the curriculum after it has been

developed. Then it will be ready for nationwide implementation inside the VTIs. The VTI can

alter the curriculum to meet local needs and conditions, but only up to 20% of the curriculum

in terms of content can be changed.

Conclusion

The tailoring training curriculum for the garment industry in Laos was developed with the

DACUM model. The stakeholders in this development process included representatives of the

government, TVET teachers, in-company trainers and representatives from TWG of the

garment sector. It was advantageous that the industry took part in this because they know very

well about the skill needed in a garment company. This means that the material for the

curriculum meets the requirement of the world of work. However, this curriculum was

developed in 2004 due to the growth of skill needs, technological change, organisational

change and the industry's transformation. Moreover, the tools and equipment of the VTIs

themselves maybe not be enough or are out-of-date already. The current graduates from this

programme would need additional training before entering the garment sector. For example

on-the-job training or in-house training of the factory. This means this increases more

additional capital investment and time spent by the company in order to obtain the right worker

for their new production or manufacturing.

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References

Halbrooks, M.C. (2013) DACUM as a Model for Horticulture Curriculum Development and Revision: A Case Study. HortTechnology, 13(3), 569-576. https://doi.org/10.21273/HORTTECH.13.3.0569

Johnson, J (2008) Curriculum Development for a Community College, Skills-Based GIS Certificate Program Using DACUM/SCID & the UCGIS Body of Knowledge https://geoinfo.sdsu.edu/hightech/Documents/DACUM/MesaGISCurriculumDevelopment.pd f

Johnson, J (2010). What GIS Technicians Do: A Synthesis of DACUM Job Analyses https://www.geotechcenter.org/uploads/2/4/8/8/24886299/gistech_andsuppurisajournalvol22isue2.pdf

Maruanaya, R., & Köhler, T. (2021). ASSESSING THE VALIDITY AND RELIABILITY OF A QUESTIONNAIRE ON COOPERATION BETWEEN LEARNING PLACES (VOCATIONAL HIGH SCHOOL AND INDUSTRY). *EDU SCIENCES JOURNAL*, 2(1), 17-28. https://doi.org/10.30598/edusciencesvol2iss1pp17-28

Norton, R. E., & Moser, J. (2008). DACUM handbook (3rd ed.). Columbus, OH: Center on Education and Training for Employment, The Ohio State University

TVET's student statistic 2019-2020, Department of Technical and Vocational Education, MOES, 2021.

Valdes, H., Correa, C., Mellado, F. (2018) Proposed Model of Sustainable Construction Skills for Engineers in Chile. Sustainability, 10 (9), 1-19. https://doi.org/10.3390/su10093093