

# Curriculum Development based on Stakeholders' Needs

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**Abstract**—Agro Industry Technology Education (PTAG) is a vocational agricultural higher education in Indonesia. The purpose of this study program is to produce graduates to work as a teacher or trainer personnel in accordance with its competence. To achieve these objectives, curriculum was revised so that graduates are in accordance with the needs of the workforce. To answer the question, research on some agricultural vocational high school in West Java was conducted. The research method used a comparative descriptive study, that compared the percentage of the existing curriculum in vocational agriculture high school with Agroindustri study program curriculum. The curriculum data as research material were Agribusiness Agricultural Products (AHP) and the results of Agricultural Processing Engineering (TPHP). Furthermore, the data was compared and analyzed using percentages. The study provided an overview: Curriculum vocational high schools ( AHP) are relevant and Suitability curriculum Agroindustrial Engineering Education Curriculum Studies Program with (TPHP) is not relevant.

**Keywords:** curriculum, suitability.

## I. INTRODUCTION

Agro-Industry Technology Education Program (PTAG), Indonesia University of education (UPI) is a new study program and the only higher-education vocational agriculture in Indonesia [1]. PTAG has a purpose in accordance with national education goals, so that its graduates have the knowledge and technology and ready to work according to its field of study [2].

PTAG as a pioneering study program has the responsibility to provide education and produces graduates to work in accordance with the demands of the working world. PTAG is producing graduates of teachers who will teach in vocational school of agricultural technology, so the curriculum should be in accordance with the vocational curriculum. [3] The curriculum of PTAG is in conformity with the demands of the world of work needs so it is necessary to do research curriculum in PTAG projected to agricultural vocational curriculum. Curriculum that links both educational institutions is a very important part in the learning process in PTAG so that graduates can meet the demands of the working world. [4]

Curriculum is a learning program [5], and the development should be projected on the vocational curriculum. This study

focused on vocational curriculum expertise AHP program (Agribusiness Agricultural Products) and TPHP (Agricultural Products Processing Engineering).

## II. OBJECTIVE

The purpose of this study to determine the relevance of the curriculum structures PTAG with Curriculum Vocational Skills Program AHP and TPHP in West Java. Furthermore, the findings will be used as input for curriculum development PTAG.

## III. RESEARCH METHOD

This research method is descriptive comparative [6]. A qualitative approach is done by analyzing the content on any structure existing curriculum in vocational agriculture. Suggestion is vocational agricultural research has expertise AHP program (Agribusiness Agricultural Products) and TPHP (Agricultural Products Processing Engineering) in West Java. The vocational school is SMK 1 Cibadak, Sukabumi, SMK 1 Indramayu, SMK 1 Brass and SMKN 1 Mundu, Cirebon.

The data collected is data AHP vocational curriculum, studied at some of the lessons that expertise with Vegetable Production, Animal Production, Production Plantation and Production Food and Beverage Herbal. Then the data TPHP curriculum vocational subjects studied based Fishery Commodities, Traditional Fisheries.

The data is collected with instruments in the form of a table format. Data studies curriculum is done by analyzing the content on any structure and syllabus [7]. Furthermore, this table is filled curriculum content taken from each Vocational High School. Other supporting data such as syllabi, lesson plans. PTAG the data collected on the curriculum, course syllabus and lecture event's unit. Data were analyzed by comparing the content of curriculum of vocational and PTAG, then calculated based on the percentage, the calculation results compared to the interpretation of the following criteria [8].

TABLE I. INTERPRETATION OF LEVEL MATCH

Percentage Level of Compliance	Interpretation
>85 %	highly Relevant
$70\% \leq x \leq 85\%$	enough Relevant
<70%	Less Relevant

#### IV. RESULT AND DISCUSSION

##### A. Suitability Data Analysis and vocational curriculum PTAG AHP.

AHP vocational curriculum research, studied at some of the lessons that expertise with Vegetable Production, Animal Production, Production Plantation and Production Food and Beverage Herbal.

1) Vegetable Production: Subjects Production of Vegetable consists of six (6) subjects, namely a ) production of processed fruits, b) the production of processed vegetables, c) the production of processed tubers, d) the production of processed nuts, f) the production of processed cereals, and g) the production of processed by-products. Results of the analysis of the suitability percentage curriculum vegetable production results compared with PTAG curriculum, there are 85% of topics that are relevant category and 15% fewer relevant subject; 2) Animal Production: These subjects had a four (4) subjects, namely a ) production of processed meats, b) the production of dairy products, c) the production of processed egg, and d) the production of processed by-products. Results of the analysis of the suitability percentage curriculum in animal production compared with PTAG curriculum, there were 87.5% subjects were categorized as highly relevant and 12, 5% fewer relevant subject; 3) Plantation Production: Subject's production of plantation has six (6) subjects are as follows a) processing of plantation crops and spices and ingredient's fresheners, b) processing of plantation crops, c) processing of plantation perennial plants, d) packaging product's plantation. e ) planning and business analysis processed product's plantation crops, and f) the marketing of products processed plantation crops. Results of the analysis of the suitability percentage curriculum plantation crops production compared with PTAG curriculum, there are 79% of topics that are relevant category and 21% fewer relevant subjects; 4) Production of Food and Beverage Herbal Subjects the production of food, and herbal drinks have four (4 ) subjects, namely a ) production of food herbal botanicals and fresh, b ) production of drinks herbal botanicals and crisp, c ) packaging of food products and herbal drinks, and d ) planning and business analysis of food and herbal drinks. Results of the analysis of the suitability percentage lesson curriculum Production of food and beverages PTAG herbal curriculum, there are 74 % of topics that are relevant category and 26 % fewer relevant subjects.

##### B. Suitability in Data Analysis Curriculum PTAG FPTK UPI and SMKN TPHP.

1) Fishery Commodities ,Subjects Commodities Fishery Products has 9 (nine) subject matter is as follows a) general commodity's fishery products, b) the fish economic, c) crustaceans, d) mollusk, e) echinoderms, f) seaweed, g) frog as raw materials fishery product processing industry, h) transportation of fish, and i) the transport of live fish wet and dry systems. The results of the analysis of the percentage of Subjects Crops contained 44.4% material that includes no Tapai fewer relevant categories and 55.6% categorized none; 2) Traditional Fisheries, Commodities subjects Fishery

Products has five (5) subjects are as follows a) The basic principle and flow of traditional fishery product processing ( Salting, drying, curing, and fermentation) , b) Packaging Product Processing Traditional Fisheries ( retail packaging and transport packaging), c) Analysis of Traditional Fisheries Product Processing Business ( salting, curing, drying and fermentation) , d) Bookkeeping Administration of Traditional Fishery Products ( financial accounting and production accounting), e) Marketing of Fishery Products Traditional ( drying, salting, curing, and fermentation). The results of the analysis of the percentage of Subjects Traditional Fishery contained 62.5% material category, There is, however, less relevant, and the remaining 37.5% belongs to the category none.

#### V. CONCLUSIONS AND RECOMMENDATIONS

- a. Conclusion Suitability curriculum PTAG projected against AHP SMKN curriculum that includes subject's vegetable production, animal production, crop production and the production of food and herbal drinks, have been quite relevant suitability.
- b. Suggestion Curriculum Education Program Agro Industrial Technology needs to be revised and developed in some curriculum content projected on vocational curriculum agribusiness agricultural products. While the engineering curriculum content the bulk processing of agricultural products needs to be recast, this needs to be done so that the competency of graduates according to the needs of the agricultural vocational school teachers.

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