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## **SMART CP (Simulation Methods Analysis Rule Tech Chemistry Profession) Company and Android Application in Three Areas Regular Work for Future Solution to Decrease Unemployment and Develop Human Resources**

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**SMART CP; Learning Media;  
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### **ABSTRACT**

Unemployment is one of the main employment challenges that challenge developing countries, including Indonesia. (Muslim,2014). There are many competent human resources but many are unemployed, this is because there are some fraudulent parties or their reach is very difficult. SMART CP is a Company and application designed specifically in the field of chemistry, it places one's work in one of the fields they will choose from 3 Chemistry jobs provided by SMART CP (Teachers, Analysts / Labs, and Entrepreneurs) This application has been created to decrease unemployment and develop Human Resources. The research methods used are qualitative and quantitative as well as additions to the research methods. some purpose of this Application first is, to develop students' online learning media, to facilitate teaching staff in the bookkeeping of teacher learning devices, to obtain information directly vertically from the Ministry of Education and Culture.

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### **INTRODUCTION**

The problem of unemployment has always been a problem that needs to be solved in the economy of the State of Indonesia. It increases the population that is getting bigger every year brings consequences the increase in the number of the workforce is equal to the number of people searching jobs will increase, and workforce growth will also be followed. the increasing number of unemployment in each country will certainly have an impact on economic growth.

Unemployment is one of the main employment challenges that challenge developing countries, including Indonesia. (Muslim,2014) explains that it is a complicated and influential problem because there are interrelated factors that discuss patterns that are not easy to

understand. One factor is the population of Indonesia, which greatly generates a new workforce each year and has an impact on income levels. Based on data released by the Central Statistics Agency Indonesia in 2016 entitled Statistics Indonesia 2016, the total population of Indonesia was 255,461,700 inhabitants in 2015.

Human resources are the most important assets in an organization both large scale organizations and small, because it is a source that drives and directs the organization and maintains and develops the organization in various community demands and era. Research shows that the ability of leaders to implement transformational leadership styles in organizations has a significant impact on organizational commitment (Ismail et al., 2011). Another factor that is thought to have a relationship with the level of organizational commitment is job satisfaction. Job satisfaction has a positive and strong influence on organizational commitment. People who get higher levels of job satisfaction tend to feel higher levels of affective commitment and normative commitment, while the effect on continuance commitment is weaker (Wibowo, 2013). Research conducted by Azeem (2010) has contributed to the theory of organizational behavior. This finding is very informative in explaining aspects of organizational behavior especially the factors that contribute to employee organizational commitment. Job satisfaction is found as a predictor of organizational commitment. This study found a positive relationship between job satisfaction and organizational commitment. This means, that if job satisfaction increases, the organizational commitment will also increase. Research shows that the ability of leaders to implement transformational leadership styles in organizations has a significant impact on organizational commitment (Ismail et al., 2011). Another factor that is thought to have a relationship with the level of organizational commitment is job satisfaction. Job satisfaction has a positive and strong influence on organizational commitment. People who get higher levels of job satisfaction tend to feel higher levels of affective commitment and normative commitment, while the effect on continuance commitment is weaker (Wibowo, 2013). Research conducted by Azeem (2010) has contributed to the theory of organizational behavior. This finding is very informative in explaining aspects of organizational behavior especially the factors that contribute to employee organizational commitment. Job satisfaction is found as a predictor of organizational commitment. This study found a positive relationship between job satisfaction and organizational commitment. This means, that if job satisfaction increases, the organizational commitment will also increase.

One way to do this is by developing human resources, developing human resources is considered one of the most effective ways to improve company performance and productivity. With the development of human resources is expected to further enhance the technical skills and professional expertise of employees. However, the successful implementation of the program cannot be directly carried out during implementation but can be seen from the results of the work of employees after following the development of human resources whether there is a change or not. For this reason, the development of human resources must be carried out as efficiently as possible in order to really play a role in improving employee performance. One company that has implemented resource development man is a Public Corporation Logistics Agency (PERUM BULOG) engaged in food logistics whose products are sold to meet domestic needs. For this reason, it is necessary to develop human resources for employees so that they can increase employee knowledge and skills. Development carried out by the general company Affairs Agency.

Logistics (Perum Bulog) Kendari City Includes education and training in accordance with the needs and expertise needed in the company. Education and training conducted by

Perum BULOG are managerial training, infographic training, and millennial training. The development carried out by the State Logistics Agency (Bulog) has not been evenly distributed, this is indicated by the fact that there are still employees who have not yet participated in the program. The following is a description of the number of employees of Perum BULOG Kendari City who participated in the education and training program in 2017. In the HR and Finance section, the number of employees was 14 people, who attended education and training were 6 people and who had not participated in 8 people, in the Commercial section the number of employees was 10 people, who participated in education and training as many as 3 people, and the number of employees who have not joined as many as 7 people; The number and number of employees who have not yet participated in education and training 8 people. So the total number in the HR and Finance section, the Commercial section and the Procurement & operational section 36 people, who participated in education and training the total number is 13 people and who have not participated in education and training the total number is 23 people. It shows that there are already opportunities for developing human resources but that is just how much, in fact, human resources are indeed many but not saved. There are many competent human resources but many are unemployed, this is because there are some fraudulent parties or their reach is very difficult.

The case, many people think that learning chemistry is very difficult. The survey results say that many students will not major in chemistry because they will find it difficult to study. Learning methods that are not appropriate make students confused, this should be our common concern. Educational data shows that 43% of all students have difficulty understanding chemistry learning and in one class only a few people can answer chemical assignments and questions. But this thinking must be limited because in the study of chemistry not all must be about the formulation.

one of the best learning methods is the simulation method this method really really develops patterns of thinking and everything will get the part they have according to their ability. Sumadi Suryabrata (2012) states that learning achievement is the ability of students in the form, mastery of knowledge, attitudes, and skills, which are achieved in learning after they carry out learning activities. Learning achievement is used as a picture of mastery of the ability of students as determined for a particular course. Every effort made in learning activities both by lecturers as instructors and by students aims to achieve the highest achievements. Learning achievement is expressed by a test score or score.

This learning method emphasizes the activeness of students in developing concepts /knowledge possessed to overcome the problems faced. In this learning, educators are interactive in learning and become facilitators or mediators from the environment for students in learning. Assessment of the learning process is an integral part of learning, carried out through observation of student's performance, in addition to in the form of tests /exams. And everything will be poured in the Android application.

Android application is an electronic feature in the cellphone that really helps every job including where to get information in making this application aided by App Inventor which is a tool for creating android applications, the fun of this tool is because it is based on visual block programming, we can create applications without any code (Mulyadi, ST., 2011, p.1).

Based on this background, this research was conducted to create an application and also a SMART CP company, an application specifically designed as a learning media, learning tool and (job vacancies) placing one's work in one of the fields they will choose from the 3 Chemical jobs provided by SMART CP (Teachers, Analysts / Labs, and Entrepreneurs) This application was created to reduce unemployment and develop Human Resources.

## **METHODOLOGY**

The method carried out in related research regarding qualitative and quantitative methods. Research with this model, combines two approaches, namely research with quantitative and qualitative approaches.

### **Quantitative Research**

A quantitative approach is carried out to find out whether there is a correlation or effect of independent variables on the dependent variable.

### **Qualitative Research**

As for The qualitative approach is done by observation of participation to make a description, systematic, deep, factual, and accurate description, painting, or meaning of facts, properties, and relationships between the variables studied. Based on the research objectives, the research using this model uses explanatory research and descriptive research. Explanatory research used to test the relationship between hypothesized variables. The hypothesis itself describes the relationship between two variables; to find out whether the independent variable affects the dependent variable. The explanation format is intended to explain a sample generalization to the population or explain the relationship or effect of one variable on the variable another. Therefore, in the explanatory format, the researcher uses samples and hypotheses research. Explanation research has the credibility to measure, test relationships cause and effect of two or more variables using inferential statistical analysis (inductive). Besides that explanatory research can also be used to develop and perfecting theory even on the contrary weakens and even aborts theory.

### **Additional Research Methods**

But in this research, we include scientific concepts to create an android application using the inventor app which results have made the desired application. By reading a number of international journals and articles about coding and the inventor's app, the application has been compiled and has been done, but we will develop it again, especially to get information from KEMENDIKBUD or the government on the Ministry of Education and Culture information.

## **RESULT AND DISCUSSION**

### **SMART CP (Simulation Methods Analysis Rule Tech Chemistry Profession)**

SMART CP is a Company and application designed specifically as learning media, learning tools and job vacancies in the field of chemistry, it places one's work in one of the fields they will choose from 3 Chemistry jobs provided by SMART CP (Teachers, Analysts / Labs, and Entrepreneurs) This application has been created to decrease unemployment and develop Human Resources.

This application helps the work of special chemistry teachers and other subject teachers at the high school level. As is known, sometimes some schools find it difficult to update information from KEMENDIKBUD or the government on the Ministry of Education and Culture information. The idea of this application is due to several problems that occur in Indonesia, especially education and unemployment cases. SMART CP, is a name taken from English as well as a computer, Smart, and long-term computer memory taken from the word CPU. Each school does have several systems, but why they are not made into one. With this application, the whole school will be facilitated. As a learning media we are met by the

presence of classes and practicums in group classes and video conferences and also if this application has been accepted then the research will refer to the development of seeing some material with updated books according to the Indonesian government education syllabus. For job vacancies. This application has a job search feature for university graduates of the teacher training and education sciences to get the first step in their work or as an analyst/lab. Meanwhile, if you have a graduate below the university class you can get a job with entrepreneurial potential, as we know in chemistry there are many products that are produced so that the product will be used as employment for those who are proficient in selling. There are some purpose of this Application first is, to develop students' online learning media, to facilitate teaching staff in the bookkeeping of teacher learning devices, to obtain information directly vertically from the Ministry of Education and Culture KEMENDIKBUD regarding efforts to develop the education system and to provide employment for the community related to and the application of chemistry. There are several application features that will be explained :

1.) Learning media

Divided into classes and learning materials. Inside the class will be divided into group classes and video conferences. Every student who will enter the class will enter using the fingerprint-based attendance list that has been obtained from the first application sign in. For learning materials divided into 3 classes following the academic calendar and adjusting the semester.

2.) Teacher Learning Tools

Provides syllabus, lesson plans (RPP), academic calendars, semester programs, Absences, journals, and task books

3.) KEMENDIKBUD or Ministry of Education and Culture Information

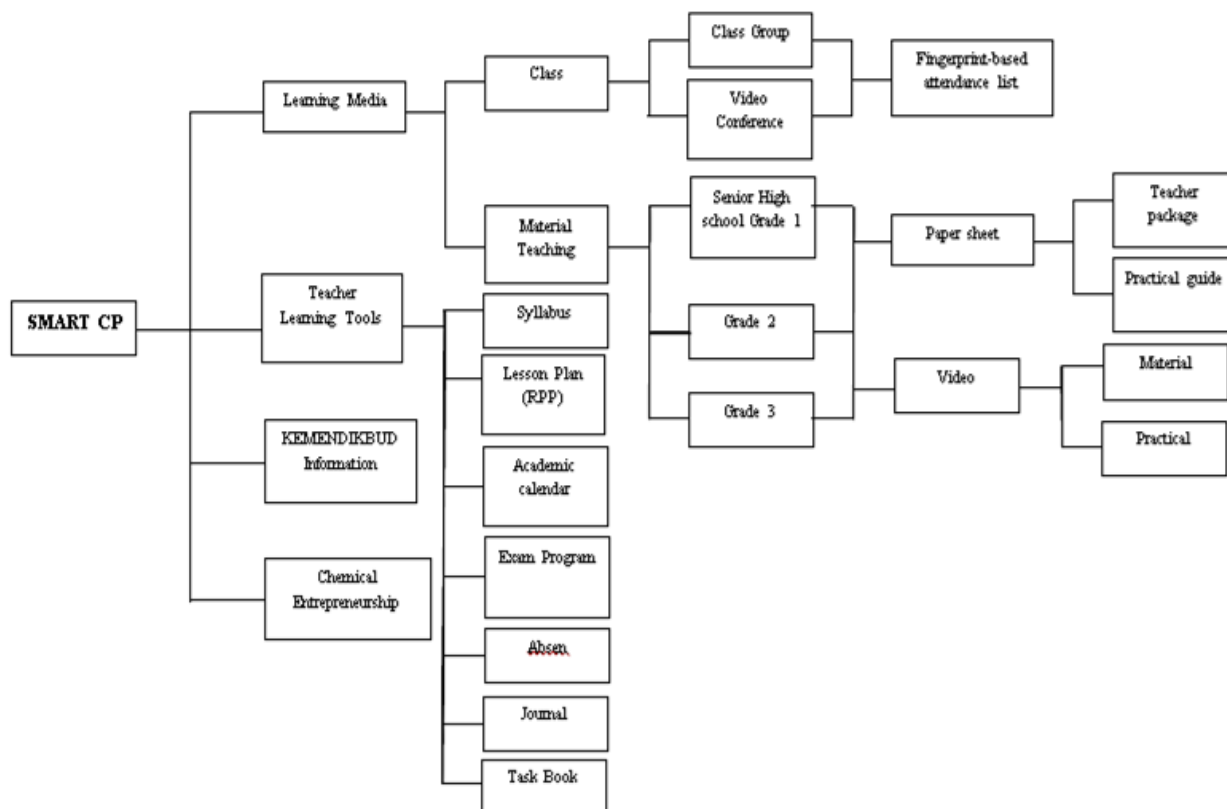
The Ministry of Education and Culture of the Republic of Indonesia specifically this application is a ministry in the Government of Indonesia that will hold affairs in the field of secondary education, and public education, and cultural management.

4.) Chemical Enterpreunurship

Providing chemical products that will be traded offline or online for a profit. Many products in the field of chemistry that can be utilized and used as a business. With the level of sales of chemical products that are used daily to spend sales, because the goods must be always needed. for example Soap, Toothpaste and etc.

To further explain this application can be illustrated in a scheme that shows the contents of this CP SMART application.

## SMART CP Scheme



(Source:Author)

**Figure 1. SMART CP Scheme**

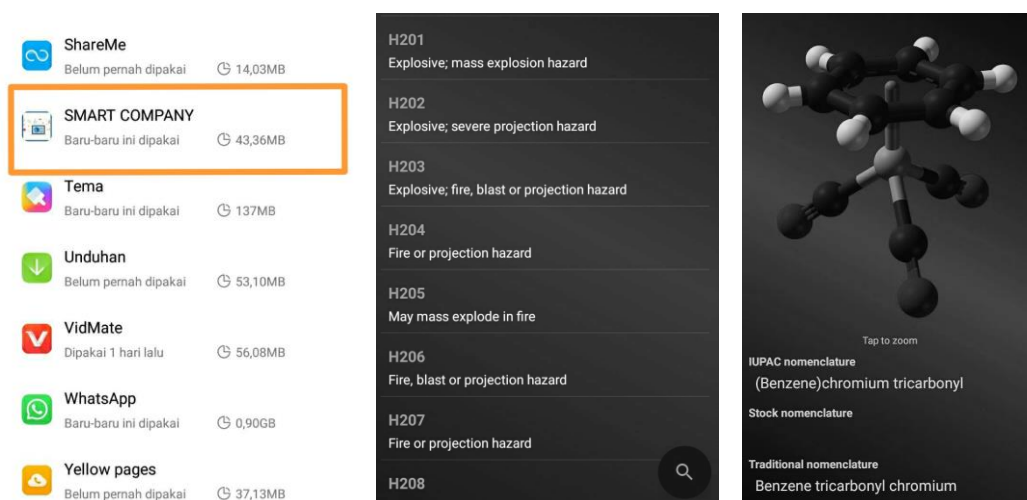
### Application Development Series (How to make an application by explain)

Unified Modeling Language (UML) is an architectural system that works in OOAD (Object-Oriented Analysis / Design) with a consistent language to determine, visualize, construct, and document the artifacts contained in the software system. UML is the most successful modeling language of the three existing OO methods, namely Booch, OMT (Object Modeling Technique), and OOSE (Object-Oriented Software Engineering) (A. Suhendar, S.Si. and Hariman Gunadi, S. Si., 2002, p.24). Use App Inventor is a tool for creating android applications, the fun of this tool is because it is based on visual block programming, we can create applications without any code (Mulyadi, ST., 2011, p.1). Inventor app is also often called visual block programming because we will see, use. Arrange and drag drops blocks which are command symbols and certain event handler functions in making applications, and we can simply call them without writing program code or coding less.

### SMART CP Display Application

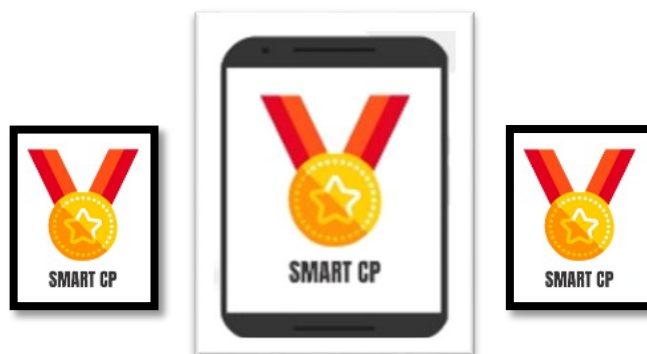
This is a display of the results of the experiment making the SMART CP application using an App inventor by studying coding which was also assisted by several parties and

information from international and national sources, which finally succeeded in making this application but still lacked the features of working with the Ministry of Education and Culture or the government information section. Development and cooperation need to be done to create applications that are very beneficial for all of us and advance the Indonesian government by using this application system. This application is really very beneficial for all people, you get learning, facilitate the system in the process of learning and teaching and also as a place to work for everyone.



(Source: author)

**Figure 2. Some Display of SMART CP Application**



(Source : Author)

**Figure 3. Icon of SMART CP**

**Questionary Result (People Opinions after use this Application)**

We took data from 70 people with age groups (15-52 years). By using the Google link form to create a questionnaire we then share it in the WhatsApp group, which is also answered by some of our colleagues and most of the lecturers in the teaching and education faculty

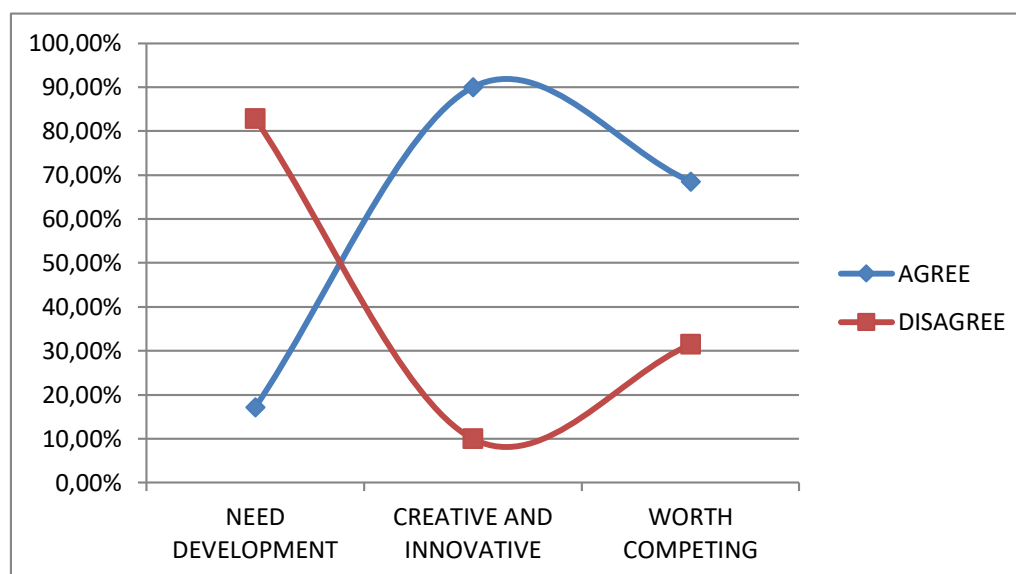
**Table 1. Questionnaire results about application development**

APPLICATION OPINION	AGREE	DISAGREE
Need development	17,14%	82,86%

Creative and innovative	90%	10%
Worth competing	68,57%	31,43 %

(Source Author)

Many support this application, therefore several parties can submit updates, develop and make updates to the application, this is intended to enhance the creativity of the nation's children who are really very innovative and effective.



**Figure 4. Questionnaire results about application development**

(Source: Author)

## CONCLUSION

Indonesia is a developing country, as children of our nation, we must start our initial steps in creating the latest innovations to make this country more developed and developed countries. Please note that our education system still needs to be renewed with the existence of some data which shows that most high schools still lack in producing human resources that meet the competition because the facilities really do not adjust the quality of learning quality even now we still find it children who stutter with technology even though we have entered the era of globalization with the online and android system. as many as 70 people resulting from the questionnaire (Saifullah.,et al) produced data that required this application to be continued because every teacher and lecturer who participated in this questionnaire really needed an application that really helped them and also for students who really needed the learning media to understand their fields. learn and also unemployment who have to work. With this application must be developed and also made an official application.

Human resources are the most important assets in an organization both large scale organizations and small, because it is a source that drives and directs the organization and maintains and develops the organization in various community demands and era. Research shows that the ability of leaders to implement transformational leadership styles in organizations has a significant impact on organizational commitment (Ismail et al., 2011). Another factor that is thought to have a relationship with the level of organizational commitment is job satisfaction. Job satisfaction has a positive and strong influence on



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