Character Development and Life Skills through The Karakterku Application to Education Students at Universitas Negeri Medan 2022

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Abstract: At the moment, everyone is living in the period of the Fourth Industrial Revolution. College students face enormous challenges in this era. The 4.0 Industrial Revolution is an age in which employees are being replaced by machines or robots. In this era, all activities in various areas of life can already be carried out using machines, be it in the fields of health, education, marketing and in other fields. This is a very big challenge for a student. In this era, students will face various challenges or problems that arise from western cultures. Seeing the rapid development of information and machines, the unwitting entry of western culture is also getting faster and easier. Those cultures that can later influence its development, both its cognitive, socio-emotional development and no less important is that it influences its character or moral development. Character education has now become the main issue for education, where character education is expected to be able to make the foundation for the success of Indonesia. In the world of education today, many things have been found various problems, as for the problems, including the character of students such as violence, *bullying*, lack of manners, lack of discipline towards existing regulations and many others. This indicates that the character of the younger generation is damaged and there is no complete handling of this problem. Character education is a deliberate attempt given by a teacher to teach children the values of character education. The existence of universities in the education system in Indonesia is needed as the basic foundation of every level of education. Character is closely related to a person's personality, so it can be called a person of character if his behavior is in accordance with ethics or moral rules (formation of *life skills).*Basically encouraging the birth of good children is the goal of character education. The formation and cultivation of excellent character will help youngsters develop in their capacity and determination to do their best, do everything correctly, and have a purpose in life. Parents and the surroundings also have a part in molding children's characteristics. Character is formed via phases of knowledge, execution, and habit formation.. Character is not limited to knowledge alone. A person who has kindness is not necessarily able to act according to his knowledge, if it is not trained (becomes a habit) to do good. It is hoped that through the media of the KARAKTERKU application, students can find the correct character patterns, especially now that the government emphasizes character education, for this reason, researchers are trying to design character education programs through IT which are used as a process of development or character building to become a foothold in the implementation of character education in universities.

Keywords: Web-based application, karakterku, *life skills, c*haracter education.

1 Introduction

At the moment, everyone is living in the period of the Fourth Industrial Revolution. In this day and age, teenagers confront great obstacles. The 4.0 Industrial Revolution is an age in which human resources are being replaced by machines or robots. In this era, all activities in various areas of life can already be carried out using machines, be it in the fields of health, education, marketing and in other fields. This is a huge challenge for a teenager. In this era, teenagers will face various challenges or problems that arise from western cultures.

Seeing the rapid development of information and machines, the unwitting entry of western culture is also getting faster and easier. Those cultures that can later influence the development of the adolescent, both his cognitive, socio-emotional development and no less important is to influence his character or moral development. The toughest challenge for teenagers in today's era is how a teenager must be able to control and control himself so as not to fall into adolescent problems. Many phenomena now, adolescents are involved in various issues such as promiscuous sex, early marriage and the use of drugs.

National education in Indonesia has goals and functions that have been formulated in Article 3 of Law No. 20 of 2003 concerning the National Education System which reads that national education functions to develop abilities and form a dignified national disposition and civilization in order to educate the nation's life, aiming to develop students to become human beings who have faith and piety in God Almighty, have a noble character, healthy, knowledgeable, capable, creative, independent and become a democratic and responsible citizen.

In general, the development of life skills is how a person may activate and advance all of the good values and competences acquired to the fullest to be utilized in everyday life. As a result, this essay will be describe the teaching and mentoring of life skills in pupils, which has largely gone unnoticed by all of us. Subsequently, it is vital to build a system that is implemented by developing life skills, specifically an education system in which life skills are something that or every student must learn. And for the expected moments, kids might become members of a society capable of thinking and acting maturely, critically, and morally in response to life, making a constructive contribution while yet surviving in the midst of existence.

A life skill usually described as the ability to do a task well. Life skills are the talents that each individual gains by learning anything that might assist him enhance the quality of his life. Life skills may be defined as "*skills that help an individual be successful in living a productive and satisfying life."* [1]. The ability for positive and adaptable conduct that allows each individual to relate effectively to the demands (needs) and obstacles of everyday life is defined as life skills. According to the Ministry of National Education (2003), life skills are the ability to be willing and brave to confront life and life difficulties fairly, without feeling pressurized, and then to search and discover answers in order to overcome them [2].

Life skills are a series of knowledge from within a person to solve problems from a life experience. Therefore, *life skills* can be interpreted as the ability to live [3]. *Life* skills are a combination of knowledge, skills and attitudes. Knowledge is something that a person knows about a topic. Skills are something that a person has such as interpersonal, intrapersonal communication and critical thinking. An attitude is something that a person believes is desirable and a value that he holds.

Furthermore, *life skills* as skills for work in addition to the ability to be oriented to the academic path. Life *skills* education, ideally able to internalize and reflect on realistic values in everyday life. *Life* skills are education that can provide a provision of skills that are

practically used, related to the needs of the job market, business opportunities and economic or industrial potential that exist in society. *Life* skills are life skills education to develop psychosocial competencies that help individuals to develop their positive behaviors, in order to face the challenges and demands of daily life.

This psychosocial refers to mental processes such as attitudes, creativity, interaction with itself, people, and the environment, along with the capacity to deal with peer pressure, emotional conflicts, and stress throughout the counseling process. The development of human character as the younger generation can be achieved by various efforts, including through education which is carried out programmatically, gradually, and continuously [4]. Education takes time, therefore the process and outcomes are not immediately apparent. Nevertheless , the next generation would benefit from these initiatives by having more resilience and strong resistance to any problems or challenges arising.

Basically encouraging the birth of good children is the goal of character education. Character development encourages kids to improve in there own potential and commitment to do their best, do everything correctly, and have a purpose in life. Through parents and the surroundings, society also influences the character of children. Character is formed via phases of knowledge, implementation, and habits. Character is more than just information. A person with kindness may not be able to act on his knowledge if it has not been educated (becomes a habit) to do good.

The following are the goals for quality education that the Ministry of National Education (now the Ministry of Education and Culture) had in mind. First, cultivating children's hearts, moral compasses, and emotive capacities as citizens with national character and cultural values. Develop in your students excellent habits and conduct that adhere to religious nation's cultural heritage and global principles. Third, as the nation's future leaders, students must be instilled with a sense of leadership and responsibility. Fourth, encourage students to become self-sufficient, creative, and patriotic citizens. Fifth, create a university life environment that is safe, honest, full of creativity and friendship, as well as a strong sense of nationality and strength [5].

This is a huge challenge for a teenager. In this era, teenagers will face various challenges or problems that arise from western cultures. Seeing the rapid development of information and machines, the unwitting entry of western culture is also getting faster and easier. Those cultures that can later influence the development of the adolescent, both his cognitive, socio-emotional development and no less important is to influence his character or moral development. The toughest challenge for teenagers in today's era is how a teenager must be able to control and control himself so as not to fall into adolescent problems. Many phenomena now, adolescents are involved in various issues such as promiscuous sex, early marriage and the use of drugs.

The era of globalization with all its forms of progress that continues to change and develop, always demands the existence of qualified and insightful human resources, not only in the field of general science, but also must be based on noble character, so as to be able to control themselves from the influence of an all-permissible culture, which accompanies the development of science and technology. The crisis that has hit Indonesia today is indicated not only to have material dimensions, but also to have entered the moral area of religion. This is triggered by the absence of strong religious knowledge [6]. With the progress of the times, where life in society is increasingly complex, educational institutions already exist both formal and non-formal educational institutions, it is necessary to take a procedural step that is consequential, implemented appropriately to realize quality education towards a good quality of education.

It is hoped that through the media of the KARAKTERKU application, students can find the correct character patterns, especially now that the government emphasizes character education, for this reason, researchers are trying to design character education programs through IT which are used as a process of development or character building to become a foothold in the implementation of character education in universities.

2 Research Methods

This research uses development research commonly referred to as Research and Development (R&D). R&D is a research process used to create and test the effectiveness of a product. Development research is a research method used to develop or validate products used in education and learning [7]. The subjects in this study were 4 expert lecturers and respondents as many as 30 UNIMED students to carry out the feasibility testing process from the guidelines in the preparation of the web-based application "My Character". The object in this study is the web-based application "My Character" which is used in the process of building character and life skills of students. There are four stages in 4-D models, namely:

a. Define, which includes the *front-end-analysis*, *learner* analysis, achievement analysis, *concept analysis,* and *specifying instructional objectives.*
b. *Design* which includes the stage of preparing a benchmark reference test *(constructing criterion-referenced* test), the media selection stage, format *selection*, and making *an initial design).*
c. Development stage (*Develop)* which includes the *expert appraisal* stage and development trials *(developmental testing).*
d. The deployment stage *(Disseminate)* is the stage of product dissemination. The dissemination stage *(Disseminate)* is carried out on a limited basis, namely by providing development products to students of the Faculty of Education, Medan State University.

The data collection instrument used in this study was a non-test instrument in the form of a questionnaire. The type of questionnaire used is a closed questionnaire using a Likert measurement scale with four answer choices: (Excellent, good, good enough and not good). Determining the Likert scale score for positively directed statements received a score of 4 Excellent (SB), a score of 3 Good, (B), a score of 2 for Less Good (KB), and a score of 1 Not Good (TB). As for the scale on which the statement is negative, the score becomes the opposite. There are two instrument experts used, namely material experts, media experts and users or students. Material experts to find out the feasibility level of the product is seen from the validation of the contents. Quantitative analysis is used to describe the feasibility level of the Web-Based Application "KARAKTERKU" based on the assessment of material expert lecturers, media expert lecturers and users (students), the product is tested according to the likert scale. The likert scale feasibility test uses four options: good, sufficient, less, and very lacking. The data obtained is in the form of grading assessment scores, namely 4, 3, 2, 1. After the data is obtained, then the conversion of the assessment score is then carried out.

3 Result and Discussion

"KARAKTERKU" WEB-Based Application Development was created to design a character education program developed based on UNIMED's mission. Furthermore, this research may turn the character education program into a web-based application to make it simpler for students to access and utilize, as well as to meet the expectations of digital technological innovation.

3.1 Analysis of Needs

During the early study stage, researchers obtained data by having numerous students fill out Google forms. On the basis of early observations, researchers received information that students need media to develop the six pillars of character of Medan State University because there are no teaching materials or other media that can be used by students of the BK FIP UNIMED study program. The WEB-Based application "KARAKTERKU" which was developed as one of the media in conducting character education can be used by students as one of the media for developing the six pillars of UNIMED character.

Formulating The Problem

a. Based on preliminary research conducted through filling out a google form for students of the BK FIP UNIMED study program, it can be concluded that there needs to be media or programs regarding the six pillars of character that are tailored to the needs and can be used by students. Therefore, it is necessary to develop media or programs such as the WEB-Based Application "KARAKTERKU" for BK FIP UNIMED students which is a forum for students to develop the six pillars of UNIMED character in students.

b. Literature Studies
Based on the formulation of the problem above, researchers conducted a literature study by studying various reading literature on the material of the six pillars of UNIMED characters developed in the WEB-Based Application "KARAKTERKU".

3.2 Product Planning

The product design developed at a minimum includes: (1) the purpose of using the product, (2) who is the user of the product, (3) a description of the components of the product, and (3) a description of the components of the product and their use. The goals of the product user need to be formulated as clearly and concretely as possible. In instructional technology goals are formulated in objective form that describes behavioral behaviors that can be observed or measured. In formulating the user of the product it is stated who the subject user of the product.

In addition to the subject, it is also necessary to explain its specifications, such as educational background, position or rank, duties and roles, experience, non-structural tasks that it carries, etc. The next thing that needs to be formulated is the components of the product. Educational products in the form of training packages include formulations of: training objectives, training materials, learning processes and learning media, assignments and

evaluation of learning outcomes, as well as learning resources used both in the form of books, as well as sources in the community.

3.3 Initial Product Development

In this stage, researchers compile the concept and content of the WEB-Based Application "KARAKTERKU" for BK FIP UNIMED students, based on the following components:

a. Main course
b. Discipline sub menu containing materials, supporting videos, case examples and reflections.
c. Justice sub menu containing materials, supporting videos, case examples and reflections.
d. Honor sub menu containing materials, supporting videos, case examples and reflections.
e. The Responsibilities sub menu contains materials, supporting videos, case examples and reflections.
f. The Concern sub menu contains material, supporting videos, case examples and reflections.
g. A citizenship sub-menu containing materials, supporting videos, case examples and reflections.

The results of research in a limited scope provide an overview of the basic ingredients and / or similar products that have been used, the implementation of existing products, and possible factors that support and hinder the use of the developed product. The figure or build of the product is still an early, tentative product that was refined through a series of trial activities. The development of this product begins with determining the title of the module, then compiling the layout of the Web-Based Application "KARAKTERKU".

3.4 Media Selection

The selection of Web-Based Applications "My Character" refers to applications that are easily accessible to students. In this case, the Web-Based Application "My Character" will later use modules to facilitate students' understanding of the material that has been listed in the application.

After the design results are completed, the initial submission of the assessment by the material undergoes several product revisions. After the revision is carried out, media experts fill out the questionnaire as the basis for the feasibility of the products that have been made. The assessment conducted by professional covers four aspects, notably the feasibility of the content, language, presentation, graphics. The results of the feasibility test by material experts can be seen in Table 1 below:

Table 1. Data of the Overall Professional Assessment

No	Professional	Persentage	Description
1	Expert 1	82,5%	Excellent
2	Expert 2	88,72%	Excellent
	Average	85,61%	Good

The results of the material expert's assessment of material quality aspects in the consultation conducted by researchers on June 22, 2022, are known to be the results of the assessment from material experts 1 with a percentage of 85% and are in the good group, then material experts' evaluation 2 with a percentage of 82% and is in the very good category. From both results media experts got an average of 84%. From these results, it can be concluded that the WEB-Based Application "KARAKTERKU" is in the category of very well used in the lecture process for S1 BK FIP Unimed students. The results of the feasibility test by media experts can be seen in Table 2 below:

Table 2. Data on the Results of the Overall Material Expert Assessment

No	Professional	Persentage	Description
1	Expert 1	85 %	Excellent
2	Expert 2	82 %	Excellent
	Average	84 %	Good

Product trials in the main field were carried out after revising the Web-Based Application "KARAKTERKU" based on suggestions and comments from material experts and media experts. Product trials aim to be the main field trials carried out through student assessments. The evaluation was done following the procedure of completing the questionnaire on WEB-Based Application "KARAKTERKU" for pupils of the Guidance and Counseling Department with a total of 30 participants on Friday, June 24, 2022.

The development of this WEB-Based Application "KARAKTERKU" has been revised gradually in following advice from media professionals, material specialists, and data gained from field tests at every stage. Following the completion of the main field trials and operational field trials, as well as data analysis at each stage of the trial, it is possible to determine that the "KARAKTERKU" WEB-Based Application has evolved into an extremely good final version to be utilized as a learning medium for BK FIP Unimed pupils.

According to the findings of assessment and evaluation after expert validation and major field trials of the WEB-Based Application "KARAKTERKU", there are several parts of which need to be revised according to the comments and suggestions submitted. Improvements to certain parts are made based on suggestions obtained from the results of verification by material professionals and media experts.

The creation of "KARAKTERKU" WEB-Based Application for BK FIP Unimed students has been completed. The completion of the WEB-Based Application "KARAKTERKU" is completed in steps in order to develop a communicative and usable learning media product. The "KARAKTERKU" WEB-Based Application product was created as a result of professional validation and fields trials of participants, as well as expert validation and field trials aimed to provide data for revision material.

The completion process of the WEB-Based Application "KARAKTERKU" is completed in phases in order to generate a communicative and usable learning media output. The

"KARAKTERKU" WEB-Based Application product was created as a result of professional validation and fields trials of participants, as well as expert validation and field trials aimed to provide data for revision material.

This service media's exceptional results are based on the validation findings of specialists, material professionals, and also the primary evaluation procedure and operational trials. The number of scores of 80 is acquired in the validation stage of media experts, resulting in a value of 100 with the Excellent classification ; in the validation stage of material experts, a total score of 100 is obtained, resulting in a value of 100 with the category of Excellent. Based on the questionnaire findings, a total score of 2621 was acquired in the primary field testing stage, yielding a score of 87 in the Excellent category. During the operational field testing stage, a total score of 11563 was recorded, resulting in an 86.48% with the Excellent category. The figures above show that there is an increase and drop in scores at each step of the material expert exam, media and field tests, but neither rise nor decrease surpasses the Very Good's minimal feasible level.

4 Conclusion

Following operational field testing, the findings of students' knowledge of the WEB-Based Application "KARAKTERKU" were obtained. The evaluation was conducted out using a questionnaire on the degree of effectiveness of the WEB-Based Application "KARAKTERKU," which was completed to 30 BK FIP Unimed pupils. The following are finding the research on the creation of the "KARAKTERKU" WEB-Based Application for BK FIP Unimed students: (1) The "KARAKTERKU" WEB-Based Application for BK FIP UNIMED students is fully prepared to be improved for student use during the student character building process, (2) the WEB-Based Application "KARAKTERKU" has six sub menus, which contain materials, videos, examples, and reflections in each chapter, and (3) For BK FIP UNIMED students, a web-based program named "KARAKTERKU" is being created. It has been certified fit for use as a learning medium based on expert evaluation findings, and it is included in the excellent range based on user trials, primarily students, after going through immediate field trials, major field trials, and operational trials.

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