

## Original Research Article

# DIGITAL CURRICULUM MODEL FOR MBKM PROGRAM TOWARDS JOB READINESS OF GENERATION Z FACING THE INDUSTRIAL ERA 4.0

### ABSTRACT

**Aims:** This research is to find out which of the eight MBKM programs is the most effective in preparing students for the world of work in industry 4.0.

**Study design:** This research model seeks to find out what actually happens in the natural context when the program is still running, to improve and improve the quality of the program in the future.

**Place and Duration of Study:** Primary data sources were dug through in-depth observations and interviews with final semester students of public and private universities in the Semarang City area for 4 months (April - July 2022).

**Methodology:** This study uses a qualitative descriptive method that applies a form of formative evaluation research. The sampling technique used is purposive sampling, with criteria that have A accreditation (6 public and private universities) and have run several MBKM programs.

**Results:** A review of the research results show that the impact of the implementation of the MBKM Learning Program is represented through readiness to participate in learning activities outside the study program. This readiness is triggered by the awareness of the importance of the program to equip oneself. Increased competence – attitudes, skills, and knowledge – is felt through improving and strengthening English language skills, digital literacy, and digital engineering. In addition, off-campus learning activities offer so many supporting skills from the specific skills that exist in the field.

**Conclusion:** Although he considered the MBKM program to be important and useful, the form of activity that was followed was more dominant in apprenticeships. A student exchange, humanitarian action, and five other activities have not received more attention. This fact initiates further research to find out the problems behind the student's actions.

**Keywords:** Digital Curriculum, MBKM, Generation Z, Work Industry

**Comment [n1]:** If the research is evaluative, what design do you use? for example using CIPP design

**Comment [n2]:** If the results mean that it is not an evaluative study but a quantitative descriptive that tries to dig up data about student readiness to take part in the MBKM program

## 1. INTRODUCTION

Changes occur because of the demands of the development of science and technology in an education system so education is required to be able to adapt to the times that continue to grow rapidly. Digital technology has now begun to be used in educational institutions as a means to support learning, both as a tool for information and as learning support [1]. Information and communication technology is an inseparable part of human work and tasks

that require skills in the world of work that have a skilled attitude and can master science and technology. Indeed, the curriculum is an important aspect of the progress of education. The curriculum determines the direction of learning content and the competence of higher education graduates. The curriculum is also an inseparable part of the achievement of educational goals. That is why universities need to design curricula to achieve the goals of the university's vision and mission. The curriculum must be designed by the vision and mission of the school/college [2]. Meanwhile, the curriculum is a very important component and is a very vital educational tool within the framework of the national education system [3]. The curriculum is also a guideline for organizing learning activities to achieve educational goals [4]. Through the MBKM curriculum, good learning implementation can be achieved so that the objectives of education can be achieved.

**Comment [n3]:** What is the background of this statement, please support it with supporting data or facts and references

The skills that must be possessed to welcome the Big Data Era stimulate the Indonesian government through the ministry of education and culture to improve the quality of Human Resources (HR) who must have digital skills and think creatively [5]. In addition, the government is also trying to reduce the national unemployment rate by synchronizing education with the world of work and industry, so that university graduates are ready to work graduates with fields of expertise and needs of the world of work. [6]. This effort was realized by the Ministry of Education and Culture by launching a new policy, namely Merdeka Belajar Kampus Merdeka [7].

This condition has been going on for a long time, so when the Minister of Education and Culture launched the Independent Learning-Independent Campus (MBKM) program through Permendikbud No. 3 of 2020 which mandated that universities must provide opportunities for students to take 40 credits off campus (2 semesters) and 20 credits in different study programs (1 semester) but at the same university. This MBKM activity aims to prepare students to face technological changes, social changes, cultural changes, changes in the world of work, and rapid technological advances, so students are required to have the competence to be able to keep up with these changes. Link and match not only with the world of industry and the world of work but also with a rapidly changing future. There are 8 activities offered by MBKM, namely: Student exchange, Internship/Work Practice, Research, Humanitarian Project, Entrepreneurial Activities, Independent Study/Project, and Thematic Real Work Lecture [8].

In the era of the Industrial Revolution 4.0, the workforce entering the world of work is Generation Z. Generation z itself is the generation born in the range of 1995 – 2010 or at the age of 11 – 26 years [9]. Generation z is the youngest generation of the workforce who will enter the world of work. The industrial revolution made the work industry change dramatically and differ from the previous work industry so that graduates or the workforce are expected to have the latest skills that are in line with the needs of the current work industry [10]. To fulfill the skills that are in line with industry needs, Generation Z as a workforce must have the readiness to work by equipping themselves with skills and knowledge that are useful in the world of work. Work readiness will be a provision for the prospective workforce to be able to compete in the work industry.

**Comment [n4]:** These results should be above to emphasize the background that this research really needs to be done

Many experts predict that this era will see many significant changes, one of which is in the human resource development (HR) sector. This is because in the era there was a significant shift in the generational change in the world of work. The meaning of human resource development in this era is how to prepare human resources with relevant skills and competencies for the future. This is because the industrial revolution 4.0 comes by emphasizing an all-technology update, including the digital economy, robotics, artificial intelligence, the internet of things, and big data patterns. Industry 4.0 that is present is not

always a positive side in the world of work, currently, industry 4.0 can also be a threat and a separate disturbance to the role of HR in the industrial world if it is not captured properly.

The problem to be researched, the problem posed in this study is how the policy model and implementation of the MBKM program will be to the current needs of industry 4.0. Specifically, this research is to find out which of the eight MBKM programs is the most effective in preparing students for the world of work in industry 4.0. So, it is urgent and very important to determine the Digital Curriculum Model for the MBKM program for Generation Z Work Readiness.

The urgency of Research, this research is important because it has the following positive impacts: Based on the description above, this research is important and urgent to be carried out in a study to be able to answer the effectiveness of the MBKM program initiated by the government in changing the higher education curriculum to be effective. This is crucial to do because there has been no research that has raised the implementation of MBKM policies in preparing students to face the world of work to the needs of this 4.0 industry.

The feasibility study, the linkage of the scheme with the focus area, or the research strategic plan of Higher Education. This research is a specification of the relationship between the scheme and the focus areas or research strategy of Higher Education, namely the Superior Fields of Social Studies, Humanities, Cultural Arts, Education, Economics, Business information systems & creative industry, local wisdom & Indigenous studies.

## 2. MATERIAL AND METHODS / EXPERIMENTAL DETAILS / METHODOLOGY

Research on the impact of the implementation of the MBKM learning program on these students uses a descriptive qualitative method that applies a form of formative evaluation research. This research model seeks to find out what actually happens in the natural context when the program is still running, to improve the quality of the program in the future [11]. Specifically, the research objectives are to identify the impact of program implementation and to photograph students' perceptions and attitudes towards the program as it is. Primary data sources were explored through in-depth observations and interviews with final semester students at PTN and PTS in the Semarang City area who experienced the impact of the implementation of the MBKM learning program. To obtain an overview of the impact of program implementation as secondary data, a survey technique was used.

This region was chosen because it has a university with the largest A accreditation. The State Universities and Private Universities that have accreditation are 6 Universities. The sampling technique uses purposive sampling, with criteria that have accreditation A and have run several MBKM programs. The data were collected using an open questionnaire and interviews to identify the factors that influence their job readiness, while the closed questionnaire was used to analyze the research model built in this study.

Stages to achieve the targeted outcomes and indicators of achievement. This research is divided into three stages: First, field study to identify research subjects and find the focus of research problems. In this step, the researcher conducted a case study through journal references, field data, and Forum Group Discussions related to the Digital Curriculum Model for the MBKM program. Second, the data used are primary data and interviews obtained from university students in the city of Semarang. Third, draw conclusions, limitations, and publish. Conclude the research using the empirical research model. If at this stage it can be completed, then this research achievement indicator has automatically been achieved.

**Comment [n5]:** is this to know the implementation or evaluate the program? Must be distinguished because the studies are different even though both are qualitative research

**Comment [n6]:** if to find out student perceptions about MBKM this is not an evaluative research, although the results can later be used as initial data to evaluate the MBKM program

### 3. RESULTS AND DISCUSSION

Technological advances in education today must be able to adapt to the era of liquid society. [12] explained that today's technology has an important role in every aspect of life, including education. Currently, technology is one of the supporting tools for the success of the educational process. Education is not only required to produce good output but is also expected to provide optimal learning. Students are expected to have 21st-century skills, which of course must also be possessed by teachers. These skills are the skills to think critically and solve problems creatively and innovatively, as well as skills in communication and collaboration. Being a teacher in the 21st century, it is not enough just to have technical skills such as mastery of the material, mastery of teaching methods, and mastery of organizing and managing classes. But it is necessary to have 8 characteristics which include the following, (1) Communicator, (2) Learner, (3) Visionary, (4) Leader, (5) Model, (6) Collaborator, (7) Risk Taker, (8) Adapter.

**Comment [n7]:** is this research result? How to retrieve the data?

A teacher must also have extensive knowledge, to be able to create an active and interesting classroom learning atmosphere. One form of effort that needs to be made to improve teachers' critical thinking skills is to provide opportunities for teachers to attend training or even allow teachers to continue their education. In addition, when teachers can think critically, it will certainly increase their skills in problem-solving so that the learning process.

Efforts that can be made by institutions in increasing teacher creativity in learning are: (1) Through the provision of supervision, (2) Providing guidance and development, (3) Providing rewards for teachers who have high creativity, (4) Apprenticing teachers, (5) Conducting case studies, (6) Creating a pleasant working atmosphere, (7) Giving freedom. In addition to efforts from the institution, there are also efforts from within the teacher to increase creativity in learning, including: (1) Broadening horizons, (2) Developing the physical learning environment, (3) Developing openness, and (4) Optimizing the use of learning technology. This can be supported by applying virtual learning sets. Furthermore, in the application of virtual set-based learning, teachers are forced to create varied, interesting, creative, and innovative learning methods by optimizing the technology developed in digital learning content.

This is under [13], explaining that the teacher is a driver of learning, not only as a facilitator but also being creative in choosing from a variety of strategies to be integrated and adapted to the context and students. In implementing the development of a digital curriculum model in the pandemic era, teachers are required to be creative with the application of teacher communication skills, in a learning process being the main key to whether or not a learning material is conveyed properly. In delivering a lesson, teachers need to have good communication skills to create effective and efficient learning.

Learning with digital technology has begun to be carried out, especially with the conditions of the pandemic era which has made many things in the technology era more widely used. However, it is undeniable that there are still educators who are not proficient in using learning applications [14]. Meanwhile, technological developments if handled properly will have a positive impact, but if not handled properly they will have a negative and detrimental impact. According to [15], to be able to take advantage of technology and improve the quality of learning, three things must be realized, namely (1) students and teachers must have access to digital technology and the internet in classrooms, schools, and teacher education institutions, (2) must be available quality, meaningful materials and cultural support for students and teachers, and (3) teachers must have knowledge and skills in using digital tools and resources to help students achieve academic standards.

The influence of the development of science has a positive impact on the more open and spread of information and knowledge from and all over the world through the boundaries of space and time [16]. Meanwhile, the development of science can also have a negative impact, namely changes in values, norms, rules, or conflicting morals of life. Thus, the role of education is very important to develop positive impacts and improve negative impacts. Education is not antipathy or allergic to the development of science and technology, but instead becomes the subject or pioneer in its development. The possibility of learning using technology is more effective than conventional learning. The benefits of technology in learning have provided new insights into how people learn in an age-appropriate way. In this way, education has developed very rapidly with the existence of digital learning (digital learning). By utilizing technological developments, education can reach all levels of society.

Jobs as YouTubers, social media managers, digital content writers, and e-commerce players are just a few of the jobs that were unthinkable a few years ago. Technological advances and the Covid-19 pandemic over the past two years have forced everyone to adapt and look for opportunities to survive by utilizing digital literacy and communication skills. Language skills – verbal and visual – both in written and spoken form are potential skills. The combination of digital skills and communication skills through the exploration and exploitation of language skills, including English, is a competency demand in today's industrial world. Responding to the challenges of change, efforts were made to strengthen competencies based on student attitudes, in this study, towards the MBKM learning program; programs that offer experiential learning.

Based on the results of the study, the attitude of students as respondents was marked by efforts to prepare themselves to participate in the MBKM learning program. The Student Readiness Survey showed that 90% of respondents stated that they had made preparations for learning outside the study program. This fact indicates that respondents are prepared to face the post-campus period. This is because the campus has carried out socialization and stages of preparation for students before the activity takes place.

Respondents' readiness to participate in the MBKM learning program was initiated by the perception of the importance of the program in preparing themselves before graduating. The Survey on the Importance of MBKM Activities for Graduates showed that 70% of respondents said it was very important. Respondents consider MBKM learning activities outside the study program important because they think this activity is following the needs of future graduates. The survey of the suitability of MBKM activities to the needs of graduates showed that 85% stated that they were very suitable.

With this fact, it is understood that respondents believe the MBKM program is useful as a form of preparation before graduating, namely, respondents believe that they are prepared to face the new demands of the world of work. The forms of off-campus learning activities that respondents are interested in are 70% choosing internships/work practices, 15% humanitarian projects, then the remaining student exchanges, conducting research/research, and independent studies/projects.

High interest in apprenticeship activities implies that partnerships with the industrial world provide opportunities for them to gain hands-on practical experience and increase competencies that can be utilized after graduation. Respondents become skilled individuals, have character, and are resistant to work pressures. In addition, through in-depth interviews, respondents admitted that the apprenticeship helped them in building a network (networking). Not only that, apprenticeship is an off-campus learning activity whose

**Comment [n8]:** The results of this study should be presented at the beginning, then discussed and supported by relevant references

implementation procedures are better understood by them. This is because apprenticeship is a form of off-campus learning activities similar to fieldwork lectures (KKL).

The MBKM Activity Benefit Survey on Graduate Competencies represents their perception of it, 60% said it was very useful. The usefulness of students is felt through the addition of competence. The Survey of Gaining Additional Competencies through the MBKM Program showed that 96% said their competence had increased. Additional competencies such as skills in solving complex real problems, and skills in analyzing, make respondents more skilled in making decisions.

The Decision-Making Skills Improvement Survey shows that 90% of respondents said their skills improved through activities such as apprenticeships. Not only the ability to make decisions that have increased, but 100% of respondents stated that their language performance skills have also increased, and the improvement of language skills certainly helps respondents to interact and communicate with communication partners. Communication Skills Improvement Survey, 96% of respondents said their communication skills improved.

Students who take part in the MBKM Program are respondents who have been equipped with digital skills in addition to English language skills. Through apprenticeship activities, respondents claimed that they felt it was useful to improve their performance in completing their tasks, as stated by 100% of respondents. Digital Skills and English Skills Usefulness Survey. As a result, they can make digital engineering.

Supporting [17] argument, hard skills coupled with good soft skills can improve individual quality. Through the MBKM Learning Program, 65% of respondents stated that their soft skills improved after participating in MBKM activities. The range of percentage figures for the increase in soft skills illustrates the need for intensive training efforts to improve soft skills. Focusing on knowledge, 97% of respondents claim that they have experienced an expanded perspective and increased competence.

A review of the research results shows that the impact of the implementation of the MBKM Learning Program is represented through the readiness to participate in learning activities outside the study program. This readiness is triggered by the awareness of the importance of the program to equip oneself in the form of mastery of competitive competencies so that one can adapt to changing competency needs of the world of work. That is, students feel the benefits of MBKM learning activities. Increased competence – attitude, skills, and knowledge – is felt through improving and strengthening English language skills, digital literacy, and digital engineering. In addition, off-campus learning activities offer so many supporting skills from the specific skills that are in the field. Students become more trained and even motivated to add new skills, collaborate, and synergize to produce a product, especially digital products. Through activities working in teams, their emotional maturity is awakened. Although he considered that the MBKM program was important and useful, the form of activity that was participated was more dominant in apprenticeships. Student exchanges, humanitarian actions, and five other activities have not received more attention. This fact initiated further research to find out the problems behind the student's actions.

#### **4. CONCLUSION**

The impact of the implementation of the MBKM Program is represented by the readiness of students to participate in MBKM activities. Increasing competence as a learning achievement outside the Study Program is also believed by students as a positive impact of this program. Non-cognitive competencies such as social communication competencies strengthen when language student performance increases, both in reality and digital spaces.

Students can read their social environment pragmatically, adapt to new environments, and are skilled at making decisions, and this lead to increased emotional maturity. Furthermore, language skills, digital literacy, and digital engineering skills that have been introduced in the classroom help their performance in carrying out learning activities outside the study program. This fact is the starting point for educational institutions to review and improve curriculum performance.

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**Comment [n9]:** Add a reputable international journal of at least 10 titles

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