Cek_Fachruddin Azmi, et.al..docx

by PRIA MITRA PURBA

Application of CPM in Education Planning
at MIS Insan Kusuma Madani Namorambe, Deli Serdang

Fachruddin Azmi[1✉], Mesiono[2], Uswatun Hasanah[3], Retno Pringadi[4]

State Islamic University of North Sumatra Medan, Indonesia

prof.dr.fachruddin@gmail.com, mesiono@uinsu.ac.id, uswacaem5@gmail.com, retnopringadi@gmail.com

Abstrak

Penelitian ini bertujuan untuk mendeskripsikan penerapan teknik *Critical Path Method* (CPM) dalam perencanaan pendidikan di MIS Insan Kusuma Madani Namorambe Kapubaten Deli Serdang. Penelitian ini menggunakan pendekatan kualitatif dengan metode deskriptif, untuk menjelaskan pendekatan dan metode yang diterapkan berupa teknik CPM dalam perencanaan pendidikan. Pemerolehan data melalui teknik observasi, wawancara dan studi dokumen. Teknik analisa data penelitian menggunakan reduksi (pemilahan) data, penyajian data dan penarikan simpulan. Kemudian, data akan dinyatakan valid usai diuji dengan teknik triangulasi data, berupa mengkroscek sumber data dan metode pemerolehan data. Hasil penelitian ini menyimpulkan bahwa pemberdayaan sumber daya manusia (SDM) dan alokasi anggaran pembiayaan program di MIS Insan Kusuma menerapkan CPM dengan efektif sebagai upaya memprioritaskan dan menjadwal program-program madrasah secara terukur dan tepat. Mendukung hal ini, pihak madrasah juga bekerjasama dengan berbagai elemen masyarakat dalam membantu perencanaan pendidikan di MIS Insan Kusuma Madani Namorambe, mulai dari kerjasama dengan lembaga swadaya masyarakat (LSM) dan lembaga pemerintahan.

Kata Kunci: Perencanaan Pendidikan, Teknik CPM.

Abstract

This study aims to describe the application of the Critical Path Method (CPM) technique in educational planning at MIS Insan Kusuma Madani Namorambe Kapubaten Deli Serdang. This study uses a qualitative approach with a descriptive method, to explain the approach and method applied in the form of CPM techniques in educational planning. Obtaining data through observation techniques, interviews and document studies. The research data analysis technique uses data reduction (sorting), data presentation and conclusion drawing. Then, the data will be declared valid after being tested with data triangulation techniques, in the form of checking the data sources and data acquisition methods. The results of this study conclude that the empowerment of human resources (HR) and budget allocation for program financing at MIS Insan Kusuma implement CPM effectively as an effort to prioritize and schedule madrasa programs in a measurable and precise manner. Supporting this, the madrasah also collaborates with various elements of society in assisting education planning at MIS Insan Kusuma Madani Namorambe, starting from collaboration with non-governmental organizations (NGOs) and government institutions.

Keywords: *Educational Planning, CPM Engineering.*

PRELIMINARY

Planning is one of the other 4 (four) basic management principles, namely implementation, monitoring and evaluation. As an initial stage in the context of education, planning functions to ensure the quality of the institution, as well as the achievement of educational goals effectively and efficiently (Fadhli, 2016: 103-113). Furthermore, planning is perceived as an orientation and vision of the future which is conceptualized in the framework (work program) of activities and actions that must be carried out by every human resource in the future. That is, planning is closely related to the evaluation of the past, prediction of the future, and implementation in the present.

Planning presents the concept of reference for educational programs systematically with various alternative choices. The preparation of a rational planning concept is related to efforts to answer future educational needs, starting from what to do, who will carry out certain tasks, when to carry out tasks, what

should be prioritized from various existing problems, and how to implement the agreed concept. together (Lazwardi, 2017: 119-125). Thus, the educational process will be carried out effectively and efficiently, as well as the quality displayed by the institution in accordance with efforts to meet the needs and demands of the community.

According to Marlina (2017), planning is closely related to the concept of the future, in the form of a concrete work program, has standardized implementation procedures, and is oriented towards educational goals. In this context, the field of management has opened up opportunities and authority for education providers in implementing all management functions according to the creativity and local wisdom of the institution, including aspects of the educational planning function. This is in line with the complexity of educational problems faced with the acceleration of technological development, thus requiring a measurable and systematic management concept.

Educational planning based on the CPM (Critical Path Method) technique is important to be applied in the world of education, as a guide in the steps for implementing the institution (Nurdin, 2019). In addition to trying to make all learning programs effective, through the CPM technique, it can also be an effort to determine the priority scale of activities or madrasa work programs (Dinata, 2018). Technically, the CPM technique can assist madrasa leaders and stakeholders in finding a schedule for the implementation of a program (deadline), so that work estimates can be measured and on time (Suriyana, 2020: 33-45).

CPM-based educational planning, becomes the main reminder of the work of an educational program. Where, the plan becomes the main benchmark in a program or activity framework, so as to minimize errors and things that deviate from the initial plan (Hariawan, 2021: 421-428). For this reason, appropriate approaches, methods, and CPM techniques are needed in determining the concept of educational planning. Furthermore, these efforts are oriented towards meeting the answers and demands of the community in dealing with the complexities of change and dynamics of madrasas.

The concept of planning in education ensures that madrasa quality development is carried out effectively and efficiently (Zen, 2016). Through planning, educational programs become integrative to be implemented according to the planned program implementation stage. A comprehensive plan will also guide the performance of madrasa managers in achieving the success of educational goals (Hidayat, 2016). Thus, the purpose of education in bringing benefit and developing the quality of human resources will be realized according to the common target.

Integratively planned education shows the optimal efforts of education providers in determining the programs needed by students and the community (Kholili & Fajaruddin, 2020: 53-69). On this basis, madrasah managers are required to determine these programs based on official policy regulations or madrasah internal policies (Thoha, 2017: 169-182; Alfiansyah, *et.al.,* 2020: 52-67). Thus, the entire program is not only regulated or agreed upon verbally, but becomes a collective agreement that has developed concepts and implementation procedures, to assessments and indicators of success.

The dynamics of change in the field of education requires that the madrasah immediately clean up by starting with an integrative education plan (Sulaeman, 2018). The preparation of CPM-based educational planning helps the madrasah in making decisions regarding learning objectives in the madrasa. In fact, the implementation time span is also limited, so that the efficiency aspect of a program is well planned. Thus, the madrasa can understand objectively what is needed by the madrasa to improve the quality and development of madrasa human resources.

Indeed, academic studies on educational planning and the critical path method (CPM) have been studied from various scientific perspectives. Among them discusses the aspect of achieving the performance of the madrasa principal (Cahyani, *et.al.*, 2021: 16-22), school quality improvement (Luthfiyani & Permana, 2022: 153-158), the concept of educational planning through a normative approach and historical studies (Suja'i, 2019), implementation of Islamic education planning (Hakim, 2021: 231-239), the urgency of educational planning in Islamic educational institutions (Sahnan, 2017: 142-159; Miftachurrohman & Atika, 2018: 473-480), contemporary Islamic education planning (Aminuddin & Kamaliah, 2022: 56-64), planning strategy as the development of Islamic education (Nuryasin & Mitrohardjono, 2019: 77-84), Islamic education planning at Islamic study institutions (Yunus, 2015), the urgency of education planning after the Covid-19 pandemic (Akhmad, 2021: 219-230), as well as a study of the foundations and principles of Islamic education planning (Nuraeni & Mujahidin, 2021: 104-121)

Observing the literature review above, it is understood that educational planning has been widely studied from various scientific aspects, but has not included studies on the use of the critical path method. For this reason, the researcher seeks to deepen the study which is summarized in the title, "*Implementation of*

CPM in Education Planning at MIS Insan Kusuma Madani Namorambe, Deli Serdang". Through this research, it is hoped that it can become a reference for future researchers in the preparation of effective and efficient education programs assisted by the critical path method, so that the program implementation framework can identify patterns, funds, and implementation times.

METHOD

This study uses a qualitative approach with a descriptive study method, to explain the approaches and methods applied in the form of CPM techniques in educational planning. This is based on efforts to obtain scientific truth (methodologically based) which is based on the philosophy of post-positivism, so that natural truths are revealed scientifically with the position of the researcher as the key instrument (Sugiyono, 2011: 14). Collecting data sources in the form of samples was carried out purposively and snowball. Obtaining data through observation techniques, interviews and document studies. The research data analysis technique uses data reduction (sorting), data presentation and conclusion drawing. Then, the data will be declared valid after being tested with data triangulation techniques, in the form of checking the data sources and data acquisition methods.

RESULTS AND DISCUSSION

The application of CPM in education planning at MIS Insan Kusuma Madani Namorambe Deli Serdang Regency is prepared based on the vision, mission and goals of the madrasa, and refers to national education standards. The direction of all madrasa activities on quality development and the reference to the vision of the institution, requires the madrasa principal to be able to implement this visionary, so that the madrasa develops dynamically and progressively from time to time (Bahri, 2019: 115-154). In this context, planning becomes an aspect that must be seriously considered by the madrasa leadership.

Empowerment of human resources and the allocation of education funding are very vital for the process of progress and development of the quality of madrasas (Aziz, 2015: 69-92). In this context, the madrasa (MIS Insan Kusuma Madani Namorambe, Deli Serdang Regency) collaborates with non-governmental organizations (NGOs) and government institutions on a continuous basis. This is intended so that funding for each madrasa program is minimized, so that the quality development of madrasas and the implementation of superior programs can be realized according to a predetermined schedule, so that there is a synergistic relationship between madrasas, surrounding communities and related government institutions. Furthermore, the description below will explain the approaches, methods and techniques of CPM in educational planning:

CPM Approach in Educational Planning

The CPM approach in education planning is divided into 4 (four) parts, namely the social needs approach, the employment approach, the cost-effectiveness approach and the integrative approach (Astari, *et.al.*, 2021: 164-180). The social needs approach is meaningful as a common and conventional effort carried out by education stakeholders (madrasah) in responding to various problems and demands of the community's needs for the education process. This approach is seen as traditional because it leads to meeting the needs of the community. In more detail, Hariawan (2021: 421-428) explains that the CPM approach in the form of social needs leads to the community's need for quality services at the basic education level. Chasan, *et.al.* (2022) added that the social needs approach is oriented towards eliminating (or at least being able to minimize) illiteracy in children, and avoiding the shackles of colonialism.

Furthermore, the CPM approach to employment education planning is oriented towards meeting the national need for manpower (superior HR). In this context, educational planning is directed at the quality of output or madrasa graduates. Where, the demand for madrasas in the absorption of the needs of labor in the community. In more detail, Hidayatullah (2021) explains that the employment approach prepares madrasa programs with reference to the needs of the world of work today and predictions in the future. Ilmiyah (2020: 444-451) adds that this approach is oriented to training programs, so that the knowledge and skills provided to students are adaptive and survive in the midst of the times. Even Marlena (2022) argues that the employment approach is related to the best educational services for students according to the demands of the world of work and the work skills needed by students.

The cost-effectiveness CPM approach is oriented towards strengthening (investment) in human resources. Usually, Wirawan (2021: 409-425) termed a cost-effectiveness approach based on a profit-and-loss approach. On this basis, Hidayatullah (2021) explains that education considers aspects of the economic

benefits of any educational program. Romadhon & Wahyuningsih (2022) added that the quality of education in the future is directly proportional to the investment costs provided, increasing people's income. Nurdin (2019) concludes that educational programs that have high economic value will occupy a large financing priority.

Then, the integrative CPM approach is seen as relatively more complete than the previous approach. This approach is systemic and synergistic, in which the orientation and interests are integrated towards individual – social (group) development. Nurul (2020) explained that this integrative CPM planning is able to meet the needs of the world of work and prepare for human resource development, so that there is a balance between fulfilling pragmatic and idealistic aspects. Aswan (2020) added that this plan also integrates academic quality services and obtaining education funds on an ongoing basis.

Based on the description above, it can be understood that education planning in madrasas (especially MIS Insan Kusuma Madani Namorambe, Deli Serdang Regency), is based on an integrative CPM approach that combines all elements of education on an ongoing basis. Thus, the fulfillment of educational human resources, increased income from education funds, adjustment of educational programs to the needs of the world of work, and the quality of education can be realized in an integrated manner in madrasas.

CPM Method in Educational Planning

The CPM method in educational planning can be implemented in the form of a mean-ways-end analysis method (analysis of the means-means-objectives), the input-output analysis method (input and output analysis), econometric analysis (econometric analysis), cause-effect diagrams (diagrams). cause and effect), delphi method, heuristic (scientific research procedure), life-cycle analysis method (life cycle analysis), and value added analysis method (value added analysis). According to Suhartono, *et al*. (2022: 25-31), this method in the critical path method (CPM) becomes the basis for visible and comprehensive educational planning.

The mean-ways-end analysis method is an effort made by researchers in reviewing sources and alternatives to achieve certain goals. The important aspects of this method include the means relating to the meaning of the various references needed, ways relating to efforts to select alternative programs and their implementation procedures, and ends relating to efforts to achieve mutually agreed goals. Where the elements in the analysis of this method are interrelated with each other.

The input-output analysis method is an attempt to analyze the interrelation and interdependence of various input and output components of a system. This method can be used to assess alternatives in the transformation process. The econometric analysis method is a method based on empirical data, then economic theory and statistics in measuring changes in relation to the economy. The econometric method develops various equations that describe the dependency relationship between variables in the education system.

The method of cause-effect diagram (cause-and-effect diagram) in planning by using to obtain a picture of the future. This method is very precise and strategic. Furthermore, the Delphi method aims to determine a number of alternative programs. Usually, this method begins by throwing a general problem identified into a more specific problem. Participants in this method are usually people who are considered experts in certain disciplines. Furthermore, the Delphi method is used to collect written decisions in educational programs.

Heuristic methods (scientific research procedures) are designed to explore issues and to accommodate conflicting views or uncertainties. This method is based on a set of principles and procedures that are systematic steps in problem solving efforts. The life-cycle analysis method is used primarily to allocate various sources of the life cycle or planned activities in the madrasa, so that all aspects of education tend to be considered from various available sources.

The value added analysis method is used to measure the success of increasing human resources in the madrasa. Through this method, the image of the madrasa to the community will increase, because accreditation and quality development can be seen as evidence of the success of increasing production or academic services. Thus, the added value of madrasas becomes more valuable based on the existing program approach.

CONCLUSION

Based on the findings and discussion above, it can be concluded that the empowerment of human resources (HR) and budget allocation for program financing at MIS Insan Kusuma implements CPM effectively as an effort to prioritize and schedule madrasa programs in a measurable and precise manner. Supporting this, the madrasah also collaborates with various elements of the community in assisting education

planning at MIS Insan Kusuma Madani Namorambe, starting from collaboration with non-governmental organizations (NGOs) and government institutions. Through this research, it is hoped that further researchers will discuss CPM-based educational planning in higher education institutions.

BIBLIOGRAPHY

Cek_Fachruddin Azmi, et.al..docx

PRIMARY SOURCES

1   Rika Kumala Sari, Ali Imran Sinaga, Salim Salim. "The Role of Al-Qur'an Educational Institution Al-Husna in Producing Huffadz in Sei Kepayang District Asahan Regency", Nazhruna: Jurnal Pendidikan Islam, 2021
Publication   **2**%

2   Wilson Wilson, Daeng Ayub Natuna, Rifky Haikal. "The Role of Parents in Guiding Children in the Implementation of Online Learning During the Covid-19 Pandemic at Yapim Siak Hulu Private Vocational School", EDUKATIF : JURNAL ILMU PENDIDIKAN, 2022
Publication   **1**%

3   eprints.ums.ac.id
Internet Source   **1**%

4   jurnal.umt.ac.id
Internet Source   **1**%

5   Rizki Eka Putra, Iswantir. "The Analysis of Implementation of Higher Order Thinking Skills (HOTS) With Problem Based Learning
   <1%

(PBL)", Journal of Physics: Conference Series, 2021
Publication

6 Zunidar Zunidar. "The Implementation of the Mind Mapping Model in Developing Children's Creativity in Thematic Lessons", EDUKATIF : JURNAL ILMU PENDIDIKAN, 2022
Publication
<1%

7 jiki.cs.ui.ac.id
Internet Source
<1%

8 text-id.123dok.com
Internet Source
<1%

9 Ramadhani Bondan Puspitasari, Arsiyah Arsiyah. "PERAN PEMERINTAH DALAM PEMBERDAYAAN LANJUT USIA DI KABUPATEN SIDOARJO", JKMP (Jurnal Kebijakan dan Manajemen Publik), 2015
Publication
<1%

10 ejournal.almaata.ac.id
Internet Source
<1%

11 repository.unair.ac.id
Internet Source
<1%

12 Qurrota A'yuna Tambunan, Ali Imran Sinaga, Salamuddin Salamuddin. "The Implementation of Blended Learning in Akidah Akhlak Lesson during Covid-19 Pandemic in Madrasah", Jurnal Basicedu, 2022
<1%

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Frag. This sentence may be a fragment or may have incorrect punctuation. Proofread the sentence to be sure that it has correct punctuation and that it has an independent clause with a complete subject and predicate.
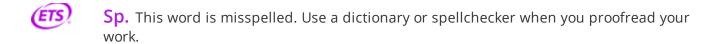
Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Article Error You may need to use an article before this word.

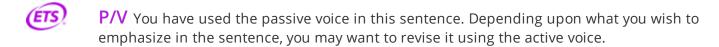**Prep.** You may be using the wrong preposition.

Article Error You may need to remove this article.

Prep. You may be using the wrong preposition.

Article Error You may need to use an article before this word. Consider using the article **the**.

Confused You have used **to** in this sentence. You may need to use **two** instead.

P/V You have used the passive voice in this sentence. Depending upon what you wish to emphasize in the sentence, you may want to revise it using the active voice.

P/V You have used the passive voice in this sentence. Depending upon what you wish to emphasize in the sentence, you may want to revise it using the active voice.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

P/V You have used the passive voice in this sentence. Depending upon what you wish to emphasize in the sentence, you may want to revise it using the active voice.
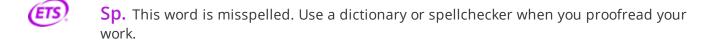
Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Article Error You may need to use an article before this word.

Article Error You may need to use an article before this word.

Frag. This sentence may be a fragment or may have incorrect punctuation. Proofread the sentence to be sure that it has correct punctuation and that it has an independent clause with a complete subject and predicate.

Article Error You may need to remove this article.

Confused You have used **to** in this sentence. You may need to use **two** instead.

Confused You have used **to** in this sentence. You may need to use **two** instead.

Article Error You may need to use an article before this word.

Article Error You may need to use an article before this word.