



BMB3 Strategy Counseling Teaching Materials to Improve Student's Metacognition Skills

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Abstract. Learning problems after the pandemic are getting more serious, critical thinking skills are low. low life skills, low internal locus of control, while high technology utilization, is predicted to be related to metacognitive skills. Students' ability to achieve metacognitive knowledge competency is very low, the average for each school is around 20%. The research objectives are; to find a model of BMB3 strategy teaching materials to improve students' metacognition; finding students' metacognitive differences; produce a BMB3 strategy teaching material model that is effective in improving the metacognition of State High School (SMAN) students in Medan and Deli Serdang; and finding supporting and inhibiting factors for the BMB3 strategy teaching material model that is effective in improving students' metacognition at Medan and Deli Serdang state high schools. The research instrument used questionnaires and field notes. Descriptive analysis techniques and t test. The research results found that; the counseling teaching material model was prepared according to the Independent Competency Standards, learning objectives were formulated, based on the objectives, learning materials, media, worksheets, BMB3 strategies and evaluation were formulated. The BMB3 strategy trains students to think, feel, behave, act and be responsible, their progress is recorded in field notes. Metacognitive skills related to learning are in the low category. The results of the t test showed that there was no difference in metacognitive skills between students at SMAN 18 Medan and SMAN 1 Batang Kuis. If the BMB3 strategy counseling teaching materials are trained and familiarized to students regarding self-reflection on the ten counseling themes, the students' metacognitive skills will increase. Optimizing the BMB3 strategy teaching material model requires the involvement of subject teachers, parents and school principal policies. The obstacle is that some students, parents, subject teachers and school principals do not understand the function and role of guidance and counseling teachers in schools..

Keywords: counseling teaching materials, BMB3 strategy, metacognitive skills.

1 Introduction

Students have low critical thinking abilities, low life skills, low internal locus of control, while high use of technology [1]. The results of the metacognitive skills-based test showed that 29.61% of students used prediction skills, 22.37% used planning skills, 15.13% used monitoring skills, and 2.38 used evaluation skills in solving problems [2] Lack of metacognitive skills results in students' thinking being less systematic or coherent. Developing learner metacognition means building a foundation for active learning. [3] explains that there is a need for a strategy to change the way one thinks, feels, behaves, acts and is responsible for oneself, called BMB3, improving metacognitive skills. High-level thinking abilities such as critical, creative, reasoning and problem solving can develop well, one of the supporting factors is if the student has good metacognitive abilities [4] Instrumentation results [5] five problems related to self-lack of initiative, integrity, ethics, curiosity, self-regulation. Connecting with other people, namely lack of collaboration, social awareness, empathy, maturity of peer relationships, and career readiness. The ten themes are the problems of students at SMA N 18 Medan, who need to be trained, guided and developed in order to achieve learning success. Horney et al. [6] as a world characterized by its volatility, uncertainties, complexity, and ambiguity has become more.

Critical thinking occurs when individuals use metacognitive skills and strategies underlying the improvement of desired outcomes [7] There is a high correlation between metacognitive self-regulation and critical thinking. metacognitive self-regulation provides a high contribution to critical thinking abilities [8]

Counseling teaching materials characterized by High Order Thinking Skill (HOST) use the BMB3 strategy to change students' thoughts, feelings, actions and responsibilities towards themselves. Metacognition is the ability to learn how learning should be done: planning learning activities, identifying strengths and weaknesses regarding learning activities, preparing learning programs for new concepts, skills and ideas, identifying and using experiences daily life as a learning resource, utilizing modern technology as a learning resource, leading and participating in group discussions and problem solving, learning from and taking advantage of the experiences of certain people who have been successful in certain fields, understand the supporting factors for learning success [3] .

Metacognitive means "learning how to learn" managing learning about oneself, planning, monitoring, evaluating oneself in other words, a self-counseling process occurs within oneself through metacognitive skills is the main task of the guidance and counseling teacher or counselor. Metacognition skills should occur throughout individual, group, and classical counseling services. Flavell [9] further divides metacognitive knowledge into three categories: knowledge of variables, task variables and strategy variables. Metacognitive according to Brown [10], strategies involve planning learning, thinking about the ongoing learning process, monitoring one's understanding, and evaluating learning after the activity is completed.

Thomas [11] provides seven aspects that can be emphasized by teachers in an effort to develop students' metacognition in the learning process, namely: metacognitive reflection, interaction between students and students, interaction between students and teachers, student opinions, giving full trust to students, teacher motivation, emotional

encouragement from teachers to students. The seven aspects will be of concern in developing counseling teaching materials.

Counseling teaching materials using the BMB3 strategy improve metacognitive skills for the following reasons: BMB3 strategy counseling teaching materials train and manage thoughts, feelings, attitudes, actions and take responsibility for one's own problems and development. Students identify and use their daily experiences as learning resources, utilize modern technology, understand the factors that support the success of solving problems; BMB3 strategy counseling teaching materials guide students to develop self-management habits starting to plan, monitor, and evaluate the learning style that is most suitable for themselves (visual, auditive, kinesthetic, deductive, or inductive); monitor and improve learning abilities (reading, writing, listening, time management, and problem solving); utilize varied learning environments; and the BMB3 strategy is written in a learning journal as a document to record monitoring of the process of knowledge, experience, attitudes and skills guided by the BK teacher.

Metacognitive skills are one of the learning objectives of routine, systematic and programmed counseling service teaching materials in basic counseling services which are implemented per class or per week, supporting the achievement of Student Independence Competency Standards.

The ten proposed themes are needed to face 21st century life, the increasingly blending lives of various nations in accordance with the contents of the Education Law and psychologist services number 23 of 2022, helping to restore psychological function in life, maximizing life according to conditions, and improve one's psychological well-being. Minister of Education and Culture Regulation number 111 of 2014 explains that basic counseling services are carried out by providing structured experiences and planning and implementation are carried out systematically [12]

Basic services aim to help all counselees obtain normal development, have mental healthy, and acquire life skills, or in other words, helping clients so that they can achieve their developmental tasks optimally [12].

2 Research Approach

Mixed Method research approach, using quantitative and qualitative phenomenological approaches. Key informants, guidance and counseling teachers at the research location schools, additional student informants. Mixed method uses 3 strategies, namely; sequential, simultaneous, transformative [13]. The research subjects were students and teachers at SMA N 18 Medan City and SMAN 1 Batang Kuis Deli Serdang. Purposive sampling technique, schools that have BK teachers with a Guidance Counseling certificate are willing to be key persons, and foster students from BK at the school. SMAN 18 Medan 36 people, SMAN 1 Batang Kuis 33 people. The research was carried out using the ADDIE Research and Development model (Analyze, Design, Develop ment, Implementation, Evaluation) [14].

The operational definition of metacognitive skills is knowledge and regulation of students' cognitive activities in planning, strategies for managing learning information/teaching materials, monitoring understanding of the learning process, improving strategies, and evaluating. Research instruments, metacognitive skills assessment

questionnaires, student response questionnaires to teaching materials, validation interviews for teaching materials, student activity journals on 10 themes, BMB3 strategy worksheets; and BK teacher counseling management observation sheet. The questionnaire has been validated and the quality of the teaching materials validated by material, language and graphic design experts.

Operational definition of 10 themes of Counseling Teaching Materials; Initiative is self-starting and being proactive, no need to wait to be told what to do, active in class, not giving up when facing challenges, have curiosity, find new ideas, dare to express opinions. The individual's consistent attitude is to behave honestly, trustworthy, fairly, respectfully, responsibly and dare to defend values believed truth, in the student learning environment. Ethics for interacting with friends is the way students interact and behave according to rules and norms with respectful friends, love each other, care, have the courage to express opinions, and respect the ideas expressed and take responsibility for students. Curiosity is the driving force for adventure, discovering things new, ask, explore. Self-regulation is having a goal, self-regulation, organizing emotions, reminding himself, monitoring, and assessing behavior student. Collaboration is contributing actively, working collaboratively productive, showing flexibility and skills, for a common goal with students. Social concern is the encouragement to provide assistance, tolerance, tolerance, active in social action and students' positive actions towards others. Empathy is the ability to understand other people's feelings, encouraging them to help people in trouble or pain, as well demanding and treating others with compassion. A set of social, emotional, cognitive, and social behavioral skills for adolescents to achieve successful social adaptation, understand situations from the perspective of peers, and learn from experience. A particular initial set of work relates to attitudes, individual values, behavior and motivation are achieved.

3 Results and discussion

3.1 The BMB3 Strategy Teaching Material Model Improves the metacognitiveness of Medan and Deli Serdang State High School Students

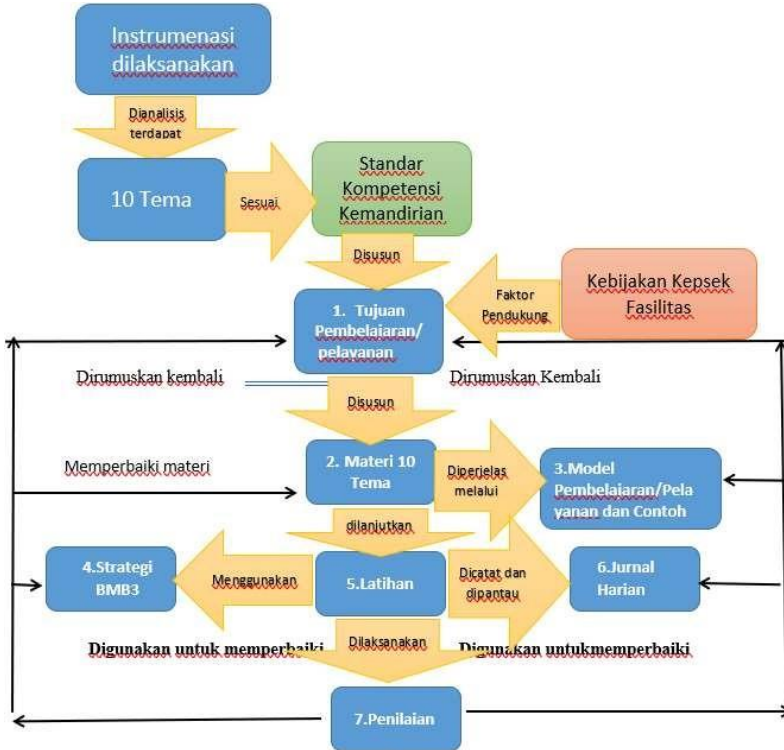


Fig. 1. Model of BMB3 Strategy Counseling Teaching Materials

Counseling teaching materials resulting from instrumentation are adapted to the Independent Competency Standards, there are 10 themes required by students. The ten themes are implemented in the basic service component aimed at all students. In stage formulate objectives. compiling material, completing case examples, determining learning models, media and BMB3 strategies, carrying out exercises recording and monitoring progress using a daily journal, assessing the achievement of the goals that have been formulated Its implementation requires the support of the principal's policy of providing 2 hours per class per week according to the curriculum. Teaching material for Spiritual Life Skills in Counseling Services through the EDUDA Application for Junior School Students [15] which received a material validity category of 75.71%, media 86.42% and teaching material effectiveness with an average percentage of 85% has demonstrated the effectiveness of using teaching materials as a reference source and as a tool for guidance and counseling teachers in providing student counseling services in schools.

3.2 Metacognitive Description of Students at SMAN 1 Batang Kuis and SMAN 18Medan

The following is the distribution of Metacognitive skills data regarding the learning of SMA N 1 Batang Kuis and SMAN 18 Medan students.

Table 1. Frequency Distribution Of Metacognitive Skills Regarding Student Learning At SMAN 1 Kuis

No.	Interval Class	Frequency
1	11 - 14	5
2	15 - 18	9
3	19 - 22	14
4	23 - 26	4
5	27 - 30	1
Total		33

Judging from the frequency distribution in table 1. The number of students in the middle interval is 14 people and 14 people are in the lower grades. This figure shows low metacognitive skills regarding learning. Purwanto [15] states that high metacognitive skills indicate high critical thinking abilities. Students who have metacognitive skills will be able to organize and control their own learning activities.

Judging from the frequency distribution in table 2. The number of students in the middle interval is 8 people and 15 people are in the lower grades. This figure shows low metacognitive skills regarding learning. Findings shows that the level of student's metacognitive skills is lower for the monitoring component as well as evaluation component. According to Sugiarto and Sophianingtyas [16], metacognition has an important role in regulating and controlling a person's cognitive processes in learning and thinking more effectively and efficiently. Coutinho [17] stated that students who have good metacognitive skills will show good learning outcomes compared to students who have low metacognitive skills.

Table 2. Frequency Distribution Of Metacognitive Skills Regarding Student Learning At Sman 18 Medan

No.	Interval Class	Frequency
1	6 -10	4
2	11 - 15	9
3	16 - 20	8
4	21 - 25	10
5	26 - 30	5
Total		36

From both school metacognitive skills regarding learning are in the low category. Results of the t test - Two Sample Test. Cognitive 1 SMAN 1 Batang Kuis data mean 19.18 is better, mean SMAN 18 Medan numbers are not much different. The result was that H_a was rejected, with the decision criteria being a significant value greater than 0.05

($\text{sig} > 0.05$). There was no difference in the metacognition of students at SMAN 1 Batang Kuis and SMAN 18 Medan. Therefore, efforts should be taken to increase the teacher awareness on the importance of promoting metacognitive development in the classroom and the effective ways to promote them in the classroom [18].

3.3 The BMB3 Strategy Teaching Materials are Effective in Improving Students' Metacognitive Skills at Medan and Deli Serdang State High School

Data from interviews and open questionnaires were obtained as follows; Ten BK teachers at the school stated that they did not have teaching materials. This teaching material is really needed by guidance and counseling teachers, this material is needed in carrying out guidance services to students, the implementation of services becomes more flexible. Teaching materials are easy to understand, appropriate content, interesting, equipped with an assessment rubric, neatly arranged and practical.

Counseling teaching materials help students develop ways of thinking in a better and positive direction. Each student has feelings within each student, there are positive and negative feelings that influence students' learning. Counseling teaching materials help direct students' feelings in a positive direction.

The exercises are designed to train students to instill behavioral attitudes in their environment, especially learning. A sense of self-responsibility for learning will be trained to the point of student commitment.

Based on Counseling guidance teacher's opinion: 10 themes of counseling teaching materials can improve students' way of thinking about learning, this is what is meant by better metacognitive skills about learning.

The results of interviews with school principals stated that "the principal said there needed to be clear teaching materials for guidance and counseling teachers and the results could be explained to parents.

Furthermore, the principal said that in the independent curriculum, guidance and counseling teachers carry out their duties in accordance with the demands of the independent curriculum and can meet the school's accreditation numbers with high scores correctly and effectively.

Supporting and inhibiting factors of SMAN 18 Medan. Adequate technology in schools, such as there being information in every class. It is hoped that teachers can optimize assignments and better understand students' characters to be able to improve students' soft skills in all fields, in accordance with the Independent Competency Standards. In Supporting Factors at SMAN Batang Kuis guidance and counseling teachers who are willing to work together to assess and provide suggestions for the teaching materials being developed.

The inhibiting factor at SMAN 18 Medan is that there are no class hours for guidance and counseling teachers at school, making guidance and counseling teachers less than optimal in carrying out their duties. When this teaching material is implemented in offline form, a school principal's policy is required to support the provision of class entry hours in accordance with curriculum demands.

The obstacle at SMAN Batang Kuis is that there are no guidance and counseling teaching materials at school, so the guidance and counseling teachers are a little confused when given these teaching materials. Apart from that, the number of guidance and counseling teachers at the school does not match the number of students, there are only 2 guidance and counseling teachers with a total of 904 students.

4 Conclusion

The counseling teaching material model is prepared according to the Independent Competency Standards, learning objectives are formulated, based on the objectives, learning materials, media, worksheets, BMB3 strategies, and evaluation, and progress journals are formulated. Learning is carried out using a cooperative model, problem-based learning, inquiry, and assignments involving students' thinking about themselves starting from planning, service processes, monitoring and self-evaluation.

The BMB3 strategy trains students to think, feel, behave, act and be responsible, their progress is recorded in student journals, the implementation of learning needs to be supported by the policies of the school principal and education office. From both schools metacognitive skills regarding learning are in the low category. There is no difference in the metacognitive skills of students at SMAN 18 Medan and SMAN1 Batang Kuis.

The ten themes of BMB3 strategic counseling teaching materials, if implemented by the guidance counselor in a scheduled and systematic manner, train and familiarize students with planning, manipulating, monitoring, evaluating, reflecting on their learning, will improve students' metacognitive skills, according to the guidance counselor.

Supporting factors for the BMB3 strategy teaching material model require the involvement of study teachers, parents, and school principal policy support. The inhibiting factor is that some students, parents, subject teachers and school principals do not understand the function and role of guidance and counseling teachers in schools.

Counseling teaching materials used by guidance and counseling teachers in schools need to be designed using the BMB3 strategy. Students' metacognitive skills need to be designed jointly by guidance and counseling teachers, subject teachers, parents and supported by school principal policies. The school provides teaching time or hours in each class, 2 hours per class per week for guidance and counseling teachers. Socialization was carried out for students, subject teachers, parents, school principals regarding the role and function of guidance and counseling teachers in schools

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