

# The Framework of Classroom-Based Assessment Based on the CIPP Model

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## Abstract

Classroom-Based Assessment (CBA) was introduced for comprehensive assessment and measurement of student learning progress. The CBA system must be implemented to ensure that students can develop interests and enjoy learning. Assessment methods that are entirely exam-oriented have been eliminated and replaced with formative CBA which is implemented during Teaching and Facilitation (PdPc) and summative CBA, which is the End of Academic Session Test (UASA) that is conducted at the end of the academic calendar starting in 2022 every year. It is implemented to ensure that the physical, emotional, spiritual and intellectual (JERI) of students can be built throughout the time these students are in Year One to Six. This study aims to understand the application of the concept of CBA among teachers. This study will be conducted in preparation to understand concepts related to CBA that can be used to understand the understanding of primary school teachers in Labuan who implement CBA. System's theory is used as a core approach and the CIPP (Context, Input, Process, Product) evaluation model is used as a framework for studies that include components, namely Context, Input, Process and Product, while considering the impact of each component.

**Keyword:** Classroom-Based Assessment (CBA), CIPP (Context, Input, Process, Product), Teaching and Facilitation (PdPc), Academic Session Test (UASA), Comprehensive Assessment

## Introduction

The implementation of the Malaysian Education Development Plan 2013-2015 (PPPM 2013-2015) has had a major impact on the entire national education system when faced with the need for skilled manpower to meet the country's needs and face competition at the global level. PPPM (2013-2025) states that states with a large number of rural schools such as Sabah and Sarawak perform poorly compared to states with few rural schools. However, there is still room for improvement in terms of quality, fairness and cohesion. Data obtained in 2010 show that Malaysia's performance lags behind countries that offer almost the same amount of allocation or less such as Thailand, Chile and Armenia which may be due to the fact that Malaysia's education allocation is not directed to factors that have a significant impact on student success, such as training continuous improvement of teachers' skills, PPPM (2013-2025). During the 3<sup>rd</sup> Wave (2021-2025), the Ministry's PPPN is focused on transitioning towards excellence while increasing operational flexibility, because at the start of this wave, all schools, teachers, principals and headmasters have to demonstrate performance above

the minimum standard. In the PADU report (2020), referring to the international assessment, there was an increase of 13% until 2018, but for TIMSS, the score did not reach the TIMSS scale at the average score of 500. This shows that the country has not reached the level of international performance.

Class assessment was introduced under KSSR, while CBA was fully implemented at the end of 2016 in SBA. Whereas, in 2019, the Ministry of Education and Culture abolished the examination for primary level 1 students. The 2020 UPSR examination has been cancelled due to the COVID-19 pandemic, while on 28 April 2021, The Minister of Education has announced the abolition of the Primary School Assessment Test (UPSR) beginning in 2021. In line with the implementation of the PPPM (2013-2025), the Ministry of Education Malaysia (KPM) emphasises a more holistic assessment of students, covering cognitive (intellectual), affective (emotional and mental) and psychomotor (physical) according to FPK. With the implementation of this system, student's academic evaluation is done continuously using formative and summative concepts and refers to standard performance. The use of performance standards to evaluate and provide feedback on student development continuously in the classroom has a great impact on the teaching and learning process of teachers. As an implementer of the SBA system, teachers must be very clear, understand and follow the content, objectives and implementation procedures based on the "Classroom-Based Assessment Implementation Guide". The publication of the KPM Classroom-Based Assessment Implementation Guide (2018) and Edition (2019) is intended to help teachers plan and formulate the best methods for assessing students. The change in the national education system focused on the examination system to the school-based assessment system or SBA, started in 2011 for primary school students while secondary school students were carried out in 2012. Student assessment at school is carried out using a standard curriculum and assessment documents that are oriented towards three standards that must be studied by students guided by the Curriculum and Assessment Standard Document (DSKP). These three standards are content standards, learning standards and performance standards (Jamil & Said, 2019).

Classroom-Based Assessment was introduced to enable students with different potentials and abilities to be tested and evaluated in the best possible way. This is also to help reduce the burden of exams on students to allow them to use their time more for activities such as making presentations and exploring their learning. In the case of Malaysia, the introduction of Classroom-Based Assessment was a sudden and somewhat rushed matter. This causes students and teachers to not have earlier and sufficient preparation. The teachers also do not have the opportunity to get full training and courses before having to carry out the classroom-based assessment (Arumugham, 2020).

### **Problem Statement**

Arumugham and Ariffin (2021) believe that teachers are still unable to understand the aspects of curriculum changes, professional judgment, quality assurance, and final formation and evaluation methods. Arumugham (2020) found that the problem in the implementation of CBA is teachers' skills, equipment and educational material resources. Maslan and Nor (2020) presume that teachers' skills, equipment facilities and teaching material resources are the main challenges in implementing CBA.

Majid (2011) thinks that the preparation of appropriate assessment materials and activities has become less in line with the students' level and less interesting because there are a few teachers who only rely on assessment materials from the Ministry of Education

instead of using their own creativity. Therefore, the challenge of using ICT hardware and equipment in CBA also occurs because there are a few teachers who lack the skills to use ICT as a medium in their teaching.

Jamil and Said (2019) found that teachers lack knowledge in oral assessment. According to Knight (2019), teachers display improvement in their teaching practices after receiving instruction. In addition, teachers showed significantly more focused teaching practices after receiving instruction.

A study by Gengatharan and Rahmat (2019) in the study "Level 1 Teacher Needs Assessment Module in Classroom-Based Assessment" states that teachers need 4 health education assessment models to help implement CBA. These four models are assessment centres, activity assessments, psychometric assessments and classroom-based assessments.

The results of other previous studies show that the CBA practices implemented by teachers are still less than satisfactory. Teachers' CBA practices are said to be more geared towards traditional assessment (Acar-erdol & Yildizli, 2018), do not follow valid CBA practices (Wiliam & Thompson, 2017; Arumugham, 2019) and implement CBA solely according to instructions from superiors without understanding the real purpose of conducting CBA and just merely grading the students (Acar-erdol & Yildizli, 2018).

The problem with the burden of the teacher's duties and responsibilities in implementing SBA is too heavy and the teacher himself needs to understand the objectives and purposes of the assessment clearly and transparently which requires utmost attention. There are also teachers who think that the implementation of CBA is a complicated and burdensome process (Yusoff & Lee, 2018), the CBA Implementation Guidebook introduced by the Ministry of Education and Culture (2018) greatly helps teachers plan and formulate the best methods in making assessments among students.

According to Abdullah (2017), proper management of classroom-based assessment evidence can help to improve students' performance in the implementation of assessment at school. Student evaluation is also done based on assessment evidence collected by the teacher based on continuous observation and evaluation throughout the Teaching and Learning (PdPc) process in the classroom. Therefore, this study was conducted to identify primary school teachers' perceptions of their readiness in terms of knowledge, skills and attitudes towards the implementation of CBA by the Malaysian Ministry of Education.

According to the Performance Dialog Report No. 1 (2019) it was found that teachers are still less confident in deciding the students' level of mastery. In addition, teachers also do not provide a temporary recording through transit assessment form to record the level of students' achievement during teaching and learning time. Based on the 2<sup>nd</sup> Performance Dialogue (2021) issued by the Labuan Education Department's Education Sector Federal Territory, there is a trend of increment in the mastery level (TP) of level 1 students in 17 primary schools by year for the main subjects including Malay, English, Mathematics, Science and Islamic Religious Education. On average, the same number (45.41%) of Year 1 students obtained at least TP3 for the five core subjects above. While 2<sup>nd</sup> year students reach up to (70.37%) TP3. While (74.05%) 3<sup>rd</sup> year students got at least TP3 for the five subjects above. However, the percentage of students who have not mastered at least level 3 exceeds 20%, namely year 1 by (46%), year 2 (29.63%) and year 3 (25.95%). The question of why these students do not master TP3 needs to be resolved. Therefore, the researcher thinks it is necessary to examine the extent of the implementation of CBA in primary schools in Labuan based on the guidelines set by the Ministry of Education.

Teachers carrying out Classroom-Based Assessment face several challenges, including students' attendance, number of students, too many dimensions, time constraints, prolonged focus on a topic, conflict with other positions, and short and limited time (Omar, 2019).

The implementation of Classroom-Based Assessment also affects the autonomy of the teacher himself. There are teachers who do Classroom-Based Assessments that involve mid-year and end-of-year exams. Classroom-Based Assessment greatly affects the autonomy of teachers at their level of education. This effect is not seen when viewed based on gender, age, experience and the location of the school where the teacher teaches (Isa et al., 2020).

The author has stated that the teacher is an important element in the implementation of Classroom-Based Assessment. This can be seen from the views of (Omar, 2019; Isa et al., 2020). Teachers who have a positive attitude towards the implementation of Classroom-Based Assessment will have a greater opportunity to produce students who have advantages in terms of Classroom-Based Assessment achievement compared to teachers who have a cynical or negative attitude towards the implementation of Classroom-Based Assessment (Pillai & Kutty, 2022). This shows that the teacher is an important element in the implementation of Classroom-Based Assessment. So, on this basis, the author suggests that the study prioritises teachers as one or an element found in the Context, Input, Process and Product.

### **Objectives and Research Questions**

The objective of this study is to

1. Understand the level of CBA implementation based on the measurement of Context, Input, Process and Product of primary school teachers,
2. Understand the differences in the implementation of CBA by primary school teachers from context, input, process and product dimensions based on gender, teaching experience at school,
3. Understanding the influence of context, input and process dimensions on product dimensions when implementing CBA by primary school teachers,

The research questions are

1. What is the level of CBA implementation based on the measurement of Context, Input, Process and Product of primary school teachers?
2. To what extent does the implementation of CBA by primary school teachers differ from the context, input, process and product dimensions based on gender, teaching experience at school?
3. How do the context, input and process dimensions influence the product dimension when implementing CBA by primary school teachers?

### **Operational Definition**

#### ***System's Theory***

Mwangeka (2020) believes that the general idea of system's theory was originally highlighted by Von Bertalanffy in the 1930s and after World War II (Bertalanffy, 1972; Adams et al., 2013; Friedman & Allen, 2014). As a biologist, Bertalanffy was interested in developing "open systems" theory. This means that the attempt to understand how the system changes is as important as the environment observed in any "living system". He added, according to Capra, system's theory is an interdisciplinary theory of every system in nature, society and in many scientific fields that provides a framework for investigating a holistic approach.

The provision of high-quality university education by maintaining established standards can be examined from a system's theory perspective. This is because the production function of university education is a system of human resources, physical resources, methods, procedures and processes that work together in a specific environment to deliver the desired output. There is a lack of compliance in the system. This lack of compliance represents a deviation from established standards or norms, and is therefore problematic. By finding where it occurs in the system and the cause, a solution can be found. This will increase the effectiveness and efficiency of the system (Mwangeka, 2020).

System's theory is the same as the function of educational products. According to John (2010, cited in Mwangeka, 2020), education has a high level of function in the production of human resources and the production function is the ratio of the total input and intervention factors to produce certain benefits, taking into account quality. Thus, the educational production function represents the functional relationship between school and student inputs to measure school output. To ensure that the production function is sufficient to meet society's demands, educational policy makers and managers must define clear and precise objectives; select inputs and strategies to transform through a productive process into a viable product; have certain capabilities in the form of skills, abilities and knowledge that can be transferred to productive economic sectors efficiently and effectively.

### ***Implementation of CBA***

Classroom-based assessment has its own flow. The flow is as follows

- a) Planning PdPc and Assessment Methods. Teachers need to a) research and understand the content of each topic in the DSKP, b) determine the learning objectives that must be achieved by students in line with the content standards and the identified learning standards and c) identify appropriate assessment methods (observation, oral and writing),
- b) Implement PdPc and Assessment. The teacher implements continuously in PdPc by using oral, written and observational methods. Oral assessment is used to collect information during interactions between students and teachers, students with students and students with learning materials. Written assessment involves the activity of reviewing and examining students' assignments and writing results. Observation is used to assess the process and results of student work.
- c) Record and Analyze Student Mastery. Recording is the activity of systematically recording information related to students' development, abilities, progress and mastery. Recorded information is analyzed and interpreted for follow-up and reporting purposes,
- d) Follow-up actions are carried out immediately or planned. The follow-up action is to increase the level of mastery of each student and
- e) Reporting. Reporting is the process of delivering assessment information about the progress and acquisition of knowledge, mastery of skills, the application of values, the development of attitudes and student achievements presented to stakeholders, especially parents.

The subjects involved in CBA are all KSSR (Primary School Standard Curriculum) and KSSM (Secondary School Standard Curriculum) subjects. While the implementation of the CBA concept occurs continuously from Year 1 to Year 6 in primary school and from Form 1 to Form 5 in secondary school. There is a question among educators and parents about 'why CBA is important?' CBA can help teachers in tracking the overall development of students. It can also

help teachers identify the strengths and weaknesses of students in learning to know the effectiveness of teaching and then plan and modify teaching methods. Finally take appropriate follow-up action immediately.

In order to guarantee the quality of the assessment, the school administrator supervises, while the teacher is in the committee for all subjects for discussion and coordination about the assessment methods and instruments used. Teachers in the same committee also moderate (discuss) among themselves in making professional judgments about students, in a committee formed by the school. This committee consists of the Principal/ Principal, Senior Administrative Assistant, Student Affairs Senior Assistant, Extracurricular Senior Assistant, Evening Senior Assistant, Special Education Senior Assistant, Senior Teacher/ Head of Subject, Committee Leader, Outstanding Teacher, Lead Coach and any teachers appointed by the Principal / principal / JK SBA. This committee discusses all the problems that exist in the implementation of CBA and finds a suitable way to overcome them. It is conducted at least twice a year.

Among the resources and materials used as reference are the CBA Handbook, the website <http://bpk.moe.gov.my>, JPN and PPD. In relation to recording, it can be done in documents such as teaching records, teacher's notebooks, checklists, Excel reporting templates or other suitable recording places. While for CBA reporting, BPK provides a student mastery reporting format in an excel file that can be accessed on the BPK website (Curriculum Development Division). Reporting is done twice a year. The new CBA reporting template is prepared according to the Year/Level of the KSSR curriculum (Revision 2017) and KSSM implemented. This means that in 2018, the new reporting template will be for Year 1, Year 2, Form 1 and Form 2. While the new CBA reporting template for Year 3 KSSR (Revision 2017) and Form 3 KSSM will be used in 2019.

### ***Implementation of the CIPP Model***

There are four areas of action that can be taken based on the CIPP assessment model by Stufflebeam. The actions are a) decisions about the environment (Context), b) decisions about resources (Inputs), c) decisions about implementation (Process) and d) decisions about results (Products). The context dimension according to Stufflebeam et al (1971) is a dimension that tries to assess the initial conditions and needs that exist in a situation. This raises issues, reveals problems and determines the limits of building a program. The results obtained will be the basis for improving existing goals and determining changes. The appropriateness of the concept and objectives of CBA is part of the evaluation of the implementation of the context dimension in this study. Input dimensions according to Stufflebeam et al (1971) measured system capabilities and inputs in terms of strategy and resources. This dimension is used to make decisions and be a guide to choose program strategies and changes to be made. The things that are emphasized are a) the planning of a procedure and the expenses used to fulfill a certain need and b) the level of use that is acceptable and has the potential to be successful in fulfilling a certain need.

The assessment of input dimensions in this study includes grading, CBA management, mastery level and performance standards, professional judgment, CBA implementation and assessment methods. Process Dimensions according to Stufflebeam et al (1971) is a dimension by examining the processes involved while the program is running. The purpose of the Process dimension is to achieve the objectives of the program. This feedback needs to be known from time to time to control the implementation of the program. This dimension acts as implementing decisions that are deemed appropriate and also as monitoring an ongoing

program. The Process Dimension in this study involves the implementation of CBA upgrading, the implementation of CBA management, the implementation of mastery levels and performance standards of CBA, the implementation of professional judgment, the implementation of CBA and the implementation of assessment methods.

In the outcome or Product dimension according to Stufflebeam et al (1971), the main purpose is to relate the goals, Context, Inputs and Processes to program outcomes. This Product dimension also assesses the extent to which a change in the program was successful. Each dimension requires three types of activities, namely a) gathering as much information as possible, b) organizing the collected information and c) analyzing the information using measurement and statistical methods. The next evaluation activity is to report the information that has been analyzed to the parties involved so that decisions can be made. The Product Dimension intended in this study is the effectiveness of CBA implementation in primary schools.

### ***Advantages of the CIPP Model***

This study aims to evaluate the implementation of the CBA program at the primary school level and use the information to improve the implementation of the CBA program at the primary school level. The CIPP model by Stufflebeam et al (1971) was used to evaluate the CBA program because the assumption of this model "not to prove but to improve" (not to prove but to improve) is appropriate and meets the purpose of this study. Meanwhile, the CIPP model of Stufflebeam et al (1971) saw analysis as simply gathering information and allowing judgments and value statements to be made by decision makers (Harlen, 1980). Therefore, it is more appropriate to use because the researcher's role in this study is to provide information to decision makers (curriculum developers). Next, the CIPP model of Stufflebeam et al (1971) used a decision/responsibility oriented evaluation approach to provide information that can help make decisions about improving a program.

The CIPP model by Stufflebeam et al (1971) is used as the conceptual framework of the study because this model allows the researcher to carry out this study systematically. According to this model, evaluation is defined as a process of making guidelines (delimiting), obtaining (getting) and providing (providing) useful information for making accurate decisions. Based on the definition, the first step that needs to be done is to create research guidelines that are the objectives of the study and the questions that need to be answered. The second step is to collect data to answer the research question. The final step is to prepare research information so that the information can be used to make decisions about program improvements. Therefore, the CIPP model of Stufflebeam et al (1971) enables researchers to conduct research in an orderly and systematic manner.

### ***Purpose and Importance of Assessment***

Wimbush and Watson (2000) state that, in general, the purpose of evaluation is to help individuals and organizations improve their plans, policies, and practices as follows: "The general purpose of evaluation is to help people and organizations improve their plans, policies, and practice on behalf of citizens" (p. 303). Mamat (1996) lists the goals of evaluation as follows: (i) improving the design of educational programs. (ii) knowing the level of achievement of educational goals, (iii) improving the way the program education is implemented, (iv) improving the use of knowledge and skills learned by trainees when they return to the workplace and (v) help organizations to make decisions about training programs and human resource development. Specifically, the role of evaluation is to provide answers.

Evaluation answers questions about what the program has done, most importantly, how well the program has done and whether the program has provided benefits or value (Rossi & McLaughlin, 1979).

Nevo and Shohamy (1986) formulated 4 purposes of educational evaluation as follows (i) formative (to improve), (ii) summative (for selection and Accountability), (iii) sociopolitical (for the purpose of motivation and obtaining public support) and (iv) administration (to exercise power). Berk (1979) explained that formative evaluation is an evaluation that evaluates the process of a program, especially when the program is still in the development stage so that its functions can be improved. Pratt (1997) contrasts formative assessment with summative assessment. Formative assessment is made for the purpose of improvement (aimed at improvement), while summative assessment is made for the purpose of final judgment (aimed at a final judgment).

### Conclusion

This study aims to understand the concept of CBA application to teachers. This study was conducted to find out the understanding of primary school teachers in Labuan in implementing the CBA system. System theory is used as the main approach and the CIPP (Context, Input, Process, Product) analysis model is used as a research framework including all components, namely context, input, process and product while taking into account the effects of each component.

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