Eny Winaryati Conceptual Framework of Evaluation Model on C'S-Based Learning Supervision

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Conceptual Framework of Evaluation Model on 4 C'S-Based Learning Supervision

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Abstract. The 21st-century learning requires the implementation of 4 character skills, including (1) *Critical Thinking and Problem Solving, (2) Creativity and Innovation, (3) Collaboration*, and (4) *Communication* (4Cs) (MESp 4C's). This framework was used to evaluate the achievement of supervision on 4Cs learning by teachers. The research method used was Grounded theory, which focuses on building a conceptual framework through the inductive analysis of various data, phenomena, information, and theories, using several systematic procedures. MESp 4C's was built in 5 stages. The first is based on the relevance of the learning stages (planning, learning, and assessment processes) with the learning supervision stages (pre-observation, observation, and post-observation) and the evaluation stages of the Stake model (*antecedent, transaction, outcomes).* Second, it is necessary to modify the Stake evaluation model with other evaluation models through the Organizational Elements Model **(OEM)**. The OEM is a stage for evaluators to determine the appropriate evaluation model to use. Proper modification of the evaluation model was obtained, namely *The Discrepancy Evaluation Models* (DEM). The Interim Product stage was more appropriate to use than the outcome so that the evaluation model stages became *Antecedent, Transaction,* and *Interim Product (ATIp).* Third, every step of the supervision implementation of *4C's* will always be evaluated. Fourth, there were feedback activities (self, peer, superior) to produce continuous learning evaluation-supervision activities, based on the 360º feedback theory. Five, MESp 4C's was built as an evaluation model with a modified six-cell Stake model. MESp 4C's was equipped with the data on the suitability of descriptions between instances and observations, assessment data between observations and standards, data on *contingencies* and *congruence,* and feedback activities. This study's

recommendation is the need for the design and testing of MESp 4 in several schools.

Keywords: Conceptualization framework; Evaluation model; Learning supervision; 4C's-based

1. Introduction

The quality of education begins with the quality of learning, which will impact the quality of graduates. The teacher's role is very strategic because everyday teachers meet with their students to transfer knowledge and skills. Teaching is a complex, multidimensional, and dynamic endeavor, highly time-dependent, and social and cultural. Measuring teacher quality, performance, or teaching effectiveness is much more important than measuring teacher qualifications (Martínez, Schweig, & Goldschmidt, 2016). The rate of teacher learning will increase when it is strengthened by the principal's quality of supervision (OECD, 2005; Sabandi, 2013).

Strong quality of supervision results in complete supervision information and better learning techniques. Conversely, weak supervision, such as incomplete, inappropriate, and inaccurate supervision, will impact the low quality of learning (Zhou, 2018). The research results above were corroborated by Daud et al. (2018), stating that the implementation of high learning supervision can improve teacher teaching attitudes and competencies. Appropriate efforts need to be made to strengthen the implementation of supervision and supervisor support in learning to produce superior teachers with useful teaching competencies in the classrooms.

In the 21st century, the world of education is required to have the readiness to face the increasingly complex challenges of life. The 21st-century learning skills encourage broader knowledge, attitudes, and skills to succeed in school, at work, and in life more broadly (Wolters, 2010). Students should have the critical thinking, problem-solving, communication, and collaboration (Griffin, McGaw & Care, 2012). *Partnership for 21 Century Skills* identifies 21st-century skills, including (1) *Communication, (2) Collaboration, (3) Critical Thinking and Problem Solving*, and (4) *Creativity and Innovation (4 C's)* (Partnership, *2015).*

The success of supervision includes the supervision of learning, which is determined by feedback with formative assessment, provision of social and emotional support, good interpersonal relationships, positive supervisory alliances, clarity of measurable aspects of assessment, teacher involvement in evaluation, and sufficient time availability by giving adequate reflective space. The above conditions create a positive relationship in the evaluation process, which will impact adequate supervision (Kilminster et al., 2007; Bambling & King, 2014; Youngstrom & Gentile, 2018; OECD, 2009a, 2009b, 2009c; Bahri, 2014). Principals are required to have skills in supervising teachers who impact improving teacher's practice evaluation (Reinhorn, Johnson & Simon, 2017).

1.1 Literature Review

The studies related to evaluating learning practices were carried out, including the assessment implementation based on 360-degree feedback theory. Master (2014)

conducted a formative evaluation that impacted administrators' feedback to teachers regarding various aspects of teaching that influenced future decisions and students' emotions. The above is confirmed by Martínez, Schweig & Goldschmidt (2016) that the aim of the teacher evaluation system's design is to predict student test scores optimally. It is an effort to improve teaching and teacher performance in the workplace with a significant focus on student achievement. Marsh, Bush, Strunk, Lincove and Huguet (2017) reinforce the above research evaluating teacher learning success by administrators, and their social relationships place a reciprocal interaction between the principal and teachers. Administrators make observations based on the rubrics compiled with the teachers regarding teacher performance and opportunities for improving learning. The information generated will impact the adjustment possibility of repair facilities. Involvement in teacher learning evaluation process by administrators provides direction on how policies will influence implementation (Master, 2014).

There is still a chance to develop an evaluation model that can be used to assess the achievement of supervision conducted by school principals with an assessment based on the 360-degree feedback theory. Given the learning demands that accommodate the 4 C's, supervision is expected to assess the implementation of 4C's by teachers to their students.

1.2 Theoretical and Practical gaps

There were some findings related to the administration of learning supervision in the field, such as the principal who did not give the comprehensive explanation about teaching strategy, indirect feedback or suggestion, ineffective, no schedule, and no follow up action based academic (Winaryati & Mufnaety, 2012; Yunus, Lestari & Raharjo, 2016). The study results indicate that the unsupervised valuation of the learning process produces only typical values (Büchler, Brattoli & Ommer, 2018). Most teachers reported that the assessment and feedback they received beneficial and fair for the development of the profession (OECD, 2009b; Youngstrom & Gentile, 2018).

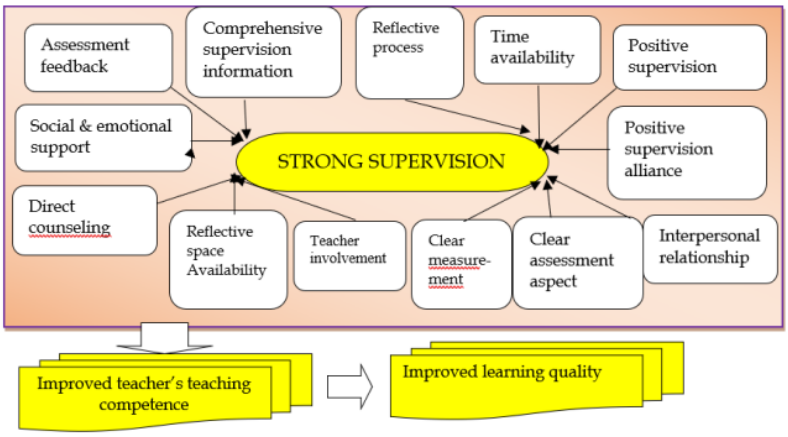


Figure 1: The correlation between supervision quality and learning quality

Based on the explanation above, supervision is needed that promotes practical, efficient, impactful, and sustainable, reciprocal activities. This indicates the need for an evaluation tool used to assess whether the supervision carried out by the principal has been effective or not. The evaluation results are recommendations, which are followed up by supervision activities to improve learning (Winaryati & Mufnaety, 2012). Continuous evaluation is needed in assessing the learning supervision activities that occur through an evaluation model framework.

Supervisors' role is very urgent, especially in the globalization era, which is full of dynamic changes in innovation and fast-moving transformation. A supervisor is required to be able to follow the above developments. There are four character skills (4 C's) of 21st century learning that students, teachers, and principals must possess. *(Partnership, 2015;* Wolters, 2010). Griffin et al. (2012) emphasize that the 4 C's are an urgent topic in the education system agenda. The Conference Board survey (Scott, 2015) found that professionalism, good work ethics, oral and written communication, teamwork, collaboration, critical thinking, and problem-solving skills are essential skills. To face success in today's world, students must possess critical thinking, problem-solving, communication, and collaboration (*Partnership*, 2009). The above needs require supervision activities that can encourage the improvement of 4 C's skills, and evaluation is carried out to obtain information on the extent to which the implementation of the 4 C's-based supervision is carried out.

Partnership (2009) states that monitoring and assessing teaching followed up with improvements as a result of feedback activities for sustainable programs is very important. The OECD research results (2009b); Youngstrom and Gentile (2018) revealed that most teachers reported that the assessment and feedback they received was useful and fair for their professional development. The results of this study indicate the need for feedback assessment from the principal to the teachers. Cormack et al. (2018) reinforce the need for a 360-degree evaluation model to provide comprehensive student evaluations and essential information for many related groups.

The 360-degree feedback is a system or process (teachers) receiving assessments from people who work around them (superiors, peers (other teachers)), subordinates (students), and colleagues (other staff) (Tee & Ahmed, 2014). The tabulation results of the 360-degree feedback help teachers identify strengths and weaknesses and motivate them to do better. Feedback recipients gain insight into how others see themselves and have the opportunity to adjust. It develops the skills, such as listening, planning, setting goals, providing the ability to work together in teams, character, and effective leadership (Kanaslan & Iyem, 2016; Cheng & Wu, 2020). The essence of the 360-degree feedback combines multiple evaluations using the input from various sources. The sources include coworkers, subordinates, customers, oneself, and supervisors. Tee and Ahmed (2014); Hosain (2016) calls it through multi-source feedback, multi-rater feedback, multi-level feedback, upward assessment, and *peer review*.

The research results of the 360-degree feedback above encourage the need for a conceptual framework that analyzes the evaluation of 4Cs-based learning supervision. It describes a comprehensive evaluation model's components and describes the main aspects that must be considered for designing a learning supervision evaluation model. The planned Model is framed in the context of the goal of overcoming the problem of supervision as well as the implementation of the continuous evaluation (Winaryati & Mufnaety, 2012).

1.3 Theoretical Model

The evaluation model on learning supervision was performed to provide convenience for the user to use and positively impact the improvement of learning. The evaluation model was chosen to put forward an evaluation method approach consisting of formative and summative evaluation methods. Formative evaluation provides opportunities for improvement (Shute, 2008). Summative evaluation ensures that the required standards have been met and as a source of documentation that is indispensable for teachers' accountability for their professionalism and results in quality teaching practice (Ola, 2013; Tang & Chow, 2007). The Model presented is expected to describe the elements and relationships within the proposed conceptual framework and impact future policy practices (Attwel, 2006; Stufflebeam, 1969; Madaus et al., 1983).

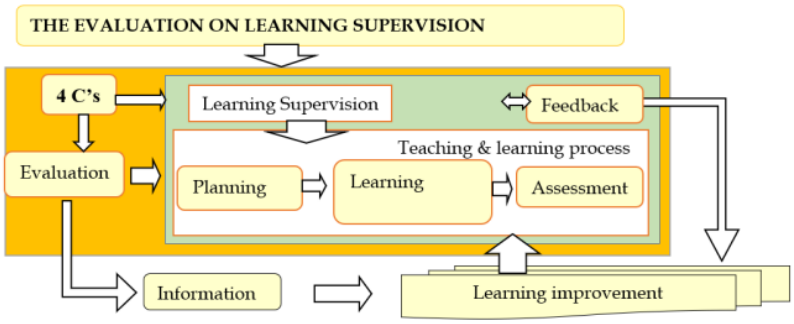


Figure 2. Correlation between evaluation-learning supervision-learning

1.4 Research Purpose

The evaluation model's output can evaluate, predict teacher performance, and recommend actions needed and that must be taken (Ola, 2013). Evaluation contributes to creating a teaching profession that is rich in knowledge and skills. An essential aspect is how the evaluation framework can complement each other, avoid duplication, and be consistent with objectives.

The research objective was to produce a conceptual evaluation model on the 4 C's-based learning supervision implemented. Also, the study results obtained the data that the feedback had an impact on the quality of teacher learning and was strengthened by the stages of academic supervision (Kemendikbud, 2017). This becomes the basis for the learning evaluation-supervision model built to accommodate the needs.

The studies on supervision were found a lot, but the 4 Cs implementation's supervision does not exist. The evaluation results' recommendations will have an impact on improving classroom learning by the teachers and the mastery evaluation of the principal as a supervisor regarding the implementation of the 4 C's. This article will direct the conceptual framework of developing an appropriate evaluation model based on learning supervision stages based on the 4 C's.

1.5 Research Questions

This study seeks to answer: how are the stages of building a conceptual framework for an evaluation model based on 4 Cs-based supervision, based on theories, definitions, facts, phenomena, benefits, objectives, concepts, variables, etc. related to MEPs4Cs.

2. Method

This study used the Grounded Theory (GT) method. This qualitative research method focuses on creating a conceptual framework by building an inductive analysis of various data, phenomena, information, and theories using several systematic procedures. The aim is to develop a theory.

The reasons for choosing the method are based on various references to the results of previous studies. Chun, Birks, and Francis (2019) state that the GT research method is a qualitative research method that uses several systematic procedures to develop theory. Glaser and Holton (2004: p. 43) convey that GT is a set of integrated conceptual hypotheses generated systematically to produce inductive theories on substantive areas. Charmaz K (2009) defines GT as a method of conducting qualitative research that focuses on creating a conceptual or theoretical framework by building an inductive analysis of data (page 187). The following is a description of the GT method's application chart and how the conceptual framework is buil

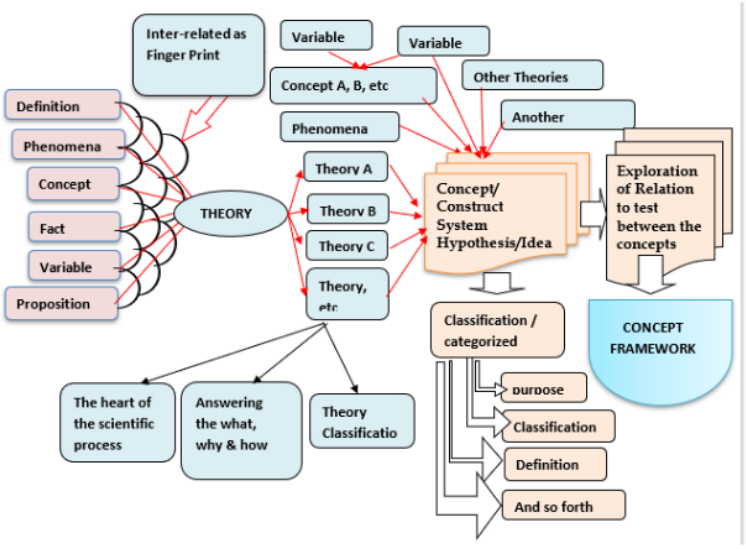


Figure 3. The Flow Conceptual Framework Construction

How to Build a Concept Framework

The conceptual outline (Figure 3) was used to construct the MEPs 4Cs. The research design began with selecting a theoretical research paradigm that can inform and guide the research process (Searcy & Mentzer, 2003). This process connected the chosen research paradigm with the empirical world, the existing domain to be developed, and the current reality phenomena. From this perspective, the research design was made in a schema. The conceptual framework serves as a "map" or "steering wheel" that will guide the realization of the objectives of the discussion (Masías, 2005).

The conceptual framework is a visual representation of the theory with the phenomena being studied. Concept maps consist of two things: concepts and the relationships between them (Maxwell, 1996). The conceptual framework is the researcher's understanding of how certain variables in his study are connected.

The paper was extracted from peer-reviewed and open-source journals reinforced by the research data conducted by researchers. The definitions from various sources were linked together so that a conceptual framework was designed according to the rules. The conceptual framework was built on the following keywords:

1. The theory is a collection of variables, problems to solve, definitions, and related propositions, providing a systematic view of phenomena by specifying the relationships between various variables to explain existing phenomena. The theory has the components of concepts, facts, phenomena, definitions, propositions, and variables (Mullerl & Urbach, 2017; Jaccard & Jacoby, 2009; Gioia & Pitre, 1990; Nunnally & Bernstein, 1994; Suddaby, 2010).
2. A theory must explain "what a construct is, how and why it is related, and to whom it applies, when and where it applies, and how it works (Whetten, 1989; Bacharach, 1989, p. 496; Wheeler, 2019).
3. The theory explains a phenomenon that has been repeatedly tested and found to be consistent over a long period (Wheeler, 2019).
4. A construct is a kind of concept which is to present a categorization or classification of objects or events into one symbol (Waller, Yonce, Grove, Faust & Lenzenweger, 2013). The constructs can be networked with one another (Cronbach & Meehl, 1955). In the conceptual framework, the concepts/constructs/variables can be added considered to be relevant, and then the relationship between them is explored or tested (Khoso, 2019; Wheeler, 2019). Construction is a fundamental concept that includes theory in which the constructs are inter-related by propositions, and a theory is made if all these elements are united (Gregor, 2006). A concept can also be an idea (Weeler, 2019).
5. Between theories, they are characterized by a unique network of constructs and relationships, and between similar theories, they are related based on their boundaries. The system of constructs, propositions, and the resulting assumptions is also referred to as nomological networks, which is a kind of fingerprint theory (Gregor, 2006).

6. A concept is a hypothetical construct consisting of several variables, and it can also be networked with other constructs (Cronbach & Meehl, 1955).
7. This research contains real, actual, and empirical domains to include critical realism using an abductive approach. The basic strategy was to interpret and recontextualize a phenomenon with a conceptual framework or several thought concepts, and it becomes a new conceptual framework. The abductive approach is defined as developing a preliminary working hypothesis prior to inductive data analysis (Peirce, 1998).

3. Result

Conceptual Framework for Building an Evaluation Model

The Model's conceptual framework was built based on the analysis of several theories, the facts obtained, the phenomena that occur, and then it was constructed using an inductive approach. There are several variables for which data must be obtained. In-depth analysis was carried out during the research regarding the implementation of supervision. The phenomena were: the principal did not tell the whole of the teaching strategy, was not quick to provide feedback / suggestions, and implemented academic supervision was still ineffective, unscheduled and there was no follow-up. In addition, several field data were obtained that reinforced the above phenomena. The field facts obtained a description that it is necessary to evaluate the implementation of supervision.

A complete understanding related to several theories about learning, supervision, and evaluation was required. Also, the understanding and implementation were needed regarding planning readiness, learning and assessment processes and feedback. The definition of teaching, availability of the syllabus, lesson plans, learning objectives, indicators, methods and media used, and assessments must have been prepared.

The skills characters (4Cs) of 21st century learning are the demands that must be understood and implemented. The teachers transferred the above skills to the students so that the students had 4Cs competence. It was expected that the students will have readiness to face the needs, problems and challenges in the future. The supervisors need to supervise the extent to which the teachers in their learning have implemented 4Cs. An evaluation was carried out to obtain data on the extent to which 4C-based supervision was carried out.

There was a complete understanding related to the meaning, definition, goals, needs and expectations of learning supervision. It was about what the supervisor should do when the teachers prepared, how the learning process, assessment, and reflective feedback were carried out. Besides, it was the basis for how 360 degree feedback was implemented, what strategies were involved, and who were involved in the feedback. The questions of what, why and how were the basis for the researchers to develop the instruments for supervision and evaluation.

There was an understanding and relevance between supervision and evaluation, i.e., how the evaluation model's construction was constructed to answer what, why, and how the evaluation activity was carried out. Some of the data, theories,

initial concepts, and empirical evidence were the variables networked to form a construction and to become the expected conceptual framework for the Model.

The selection of the evaluation model used was based on its definition, objectives, functions, benefits, and ways of implementing it. There are several evaluation models, each of which has advantages and disadvantages. It was the basis for the need for a combination of evaluation models. The evaluation model determined and accommodated its relevance to learning, 4 C's and learning supervision. The conceptual framework of this evaluation model was structured based on the steps with the flow based on a systematic sequence.

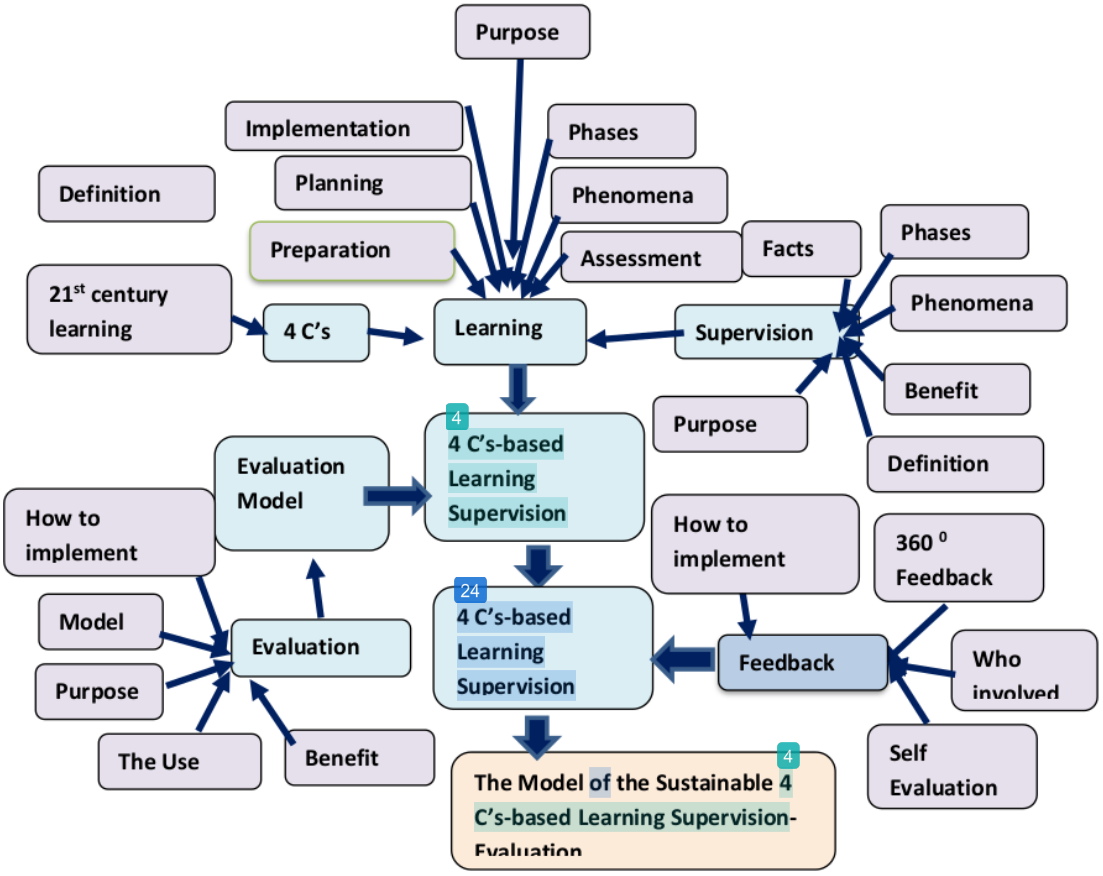


Figure 4. Concept Framework of Building Evaluation Model

4. Discussion

4.1 Building 4 C's-Based Learning Supervision Evaluation Content

The preparation stages (MESp 4C's) are as follows; First, strengthening teacher competence to improve the teaching and learning process in schools is very important. Selvi (2010) states that the contribution of all teaching competencies simultaneously or together has a significant influence on improving the learning

process's performance quality. This means that learning process is a target that must be put forward. Therefore, the supervision of learning programs must be carried out. Daresh (1989) and Glickman, et al (2007) argue that academic supervision is a series of activities to help teachers develop their ability to manage learning process to achieve learning goals. This indicates that academic supervision is inseparable from evaluating teacher performance in managing learning (Sergiovanni, 1987) and improving learning quality (Kemendikbud, 2017; Prabowo & Yoga, 2016). Learning supervision is carried out at the planning, implementation, and learning assessment stages, as well as post-learning feedback. Supervision is a humane mentoring activity through democratic relationships, openness and friendship (Bafadal, 1992; Maralih, 2014).

Third, the academic supervision stage consists of three stages: pre-observation (observation/ meeting before learning), observation (observation of learning) and post-observation (feedback meeting) (Depdikbud, 2017). Pre-observation contains the preparation and planning of learning, while the observation stage is the implementation of the planning that has been prepared. Feedback can be used to increase its effectiveness in the classroom, as well as formative assessments (Hattie & Timperley, 2007; Shute, 2008; Darto, 2014). The implementation of academic supervision by the principal is carried out in three stages: the initial survey before conducting academic supervision, class visits to find out the course of learning, and reviewing the results of class visits and providing the right solutions in overcoming problems faced by teachers (Ajasan, 2016).

Fourth, the hope is that through the implementation of this learning supervision it can be carried out sustainably. This reflective feedback process is carried out through learning supervision. Weak supervision will have an impact on the lacking quality of teachers and the quality of learning is not optimal (Zhou, 2018). This suggests that based on the studies related to 360-degree feedback, there can be an assessment of the people who work around teachers from superiors, peers (other teachers), subordinates (students), and colleagues (other staff).

Fifth, learning in the 21st century requires the possession of 4 skills consisting of: (1) Communication, (2) Collaboration, (3) Critical Thinking and Problem Solving, and (4) Creativity and Innovation. The four 21st century skills above are often termed 4C skills. Students, teachers and school principals must own these 4 Cs. Then, the supervision carried out by the principal can assess the achievement of the 4 Cs in learning, and evaluation is carried out to assess the extent to which 4C-based supervision is implemented.

Sixth, based on the substance of the pre-observation and observation stages above, it indicates: (a) Conformity between planning and implementation. (b) Supervision emphasizing the gap between the standard formulations that have been determined and the reality that occurs (results of observations). (c) Each of them has a phasing process (including input, process and output), until a product is produced. The products from the pre-observation stage will contribute / influence the observation stage and the post-observation.

4.2 Building MESp 4C's framework

Based on the learning supervision stages above, the Stake Model (Countenance Evaluation Model) is the right choice. Stake divides the evaluation object into 3 categories: Antecedents, Transactions, Outcomes. Antecedents are the sources / models / inputs that exist in a system to be developed, such as energy, finance, student characteristics, and goals to be achieved, conditions that exist before instruction that may be related to results. Transaction includes the activity plan and the process of its implementation in the field including the sequence of activities, time scheduling, teacher-student interaction forms, how to assess learning outcomes, etc. Engagement in a dynamic sequence or meeting is a process of instruction. Outcomes are the results achieved by students, teacher's reaction to a system, the side effects of the system concerned, and the impact of instructional experiences, (Popham, 1993: 5-15; Stake, 1977: 372-390; Fernandes, 1984: 8 -10; Wood, 2001: 18-27; Owston, 2008).

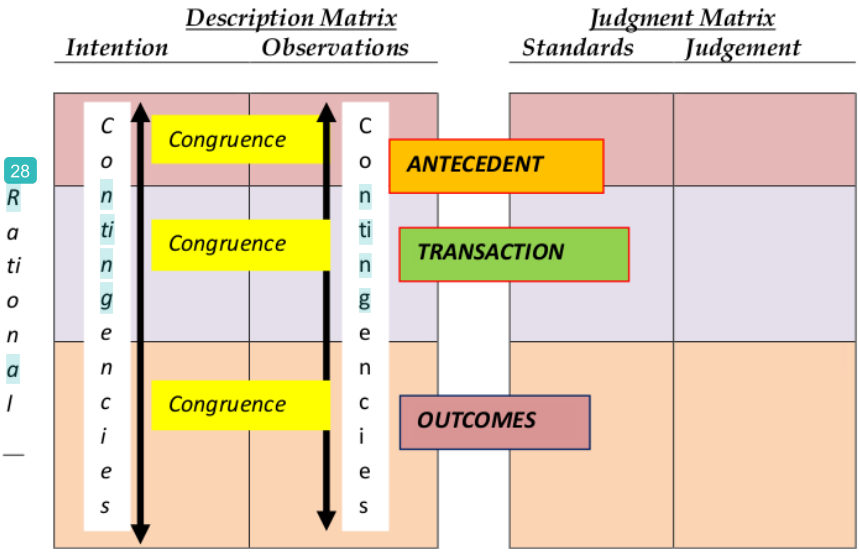
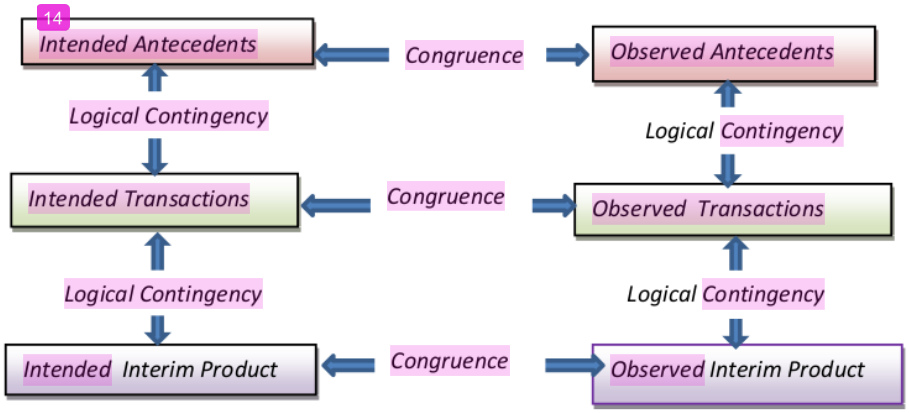


Figure 4. Implementation of Stake Model (Stake's, 2000:351)

There are two approaches to the Stake's Model: contingencies and congruence. Contingencies are logical relationships between the 3 dimensions above (antecedent, transaction, outcomes). Congruence is a conformity between what is expected (criteria) and what happens / the results in plans, processes and results (Popham, 1993: 5-15; Stake, 2000: 350-351). Outcome depends on the transaction and on antecedent conditions. Through simultaneous analysis of several aspects, evaluation will find significant interactions for improvement. The figure of evaluation flow is shown below.



Source: Stake, 1977: 372-390

Figure 5. Data Description Process of *contingencies* and *congruence*

Based on the relevance of the learning stages that the teachers must carry out, there is conformity with the learning supervision stages, and there is conformity with the Stake's evaluation model. The adjustment flow is as follows:

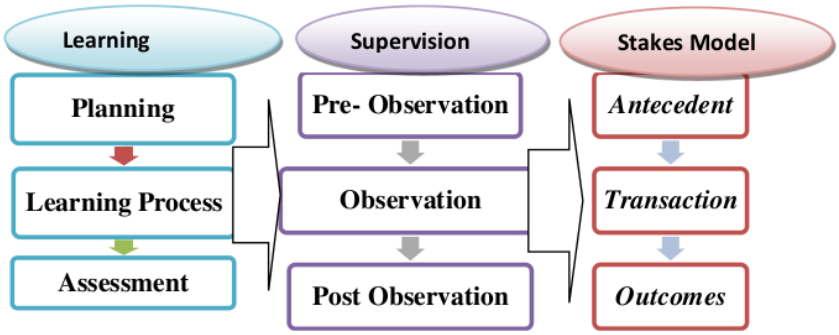


Figure 6. Adjustment Flow of Learning Phases-Supervision-Stakes Evaluation Model

The results of the research above convey that the success of learning supervision includes constructive feedback and adequate reflective space. The results of this feedback provide the room for continuous evaluation. Related to this, MESp 4C's needs feedback so that cyclic activities will be carried out. The idea of the Model above is in line with what was conveyed by Tang and Chow (2007). The results of their research convey that feedback communication from the results of learning observations is a discussion of the results of mentoring and peer coaching. The feedback content is produced by an assessment oriented towards improving learning in the context of summative evaluation to produce deeper insights from the supervision of teaching practices.

The explanation strengthens the explanation above that a temporary product is produced to go to the next stage in the pre-observation and observation stages. Post-observation is a temporary product as a result of feedback for improvement at the next pre-observation stage. In this sense, it means the production of temporary product. Besides, the outcome is a long-term result. Therefore, it is necessary to modify the outcome stage with other evaluation models. Supervision is to assess the existing standards and the performance carried out, and then an assessment of the gaps that occur is an option. The evaluation model based on the gap theory is The Discrepancy Evaluation Model (DEM).

Roger Kaufman developed organizational Elements Model (OEM) as a tool that can be used to identify different elements in a system. A system is "a set of interrelated components that work together to achieve a common goal", (Porter, 2005a). OEM provides a systemic framework, designs and implements an effective way to achieve the desired result. Kaufman (1988) divides OEM into five elements that interact with each other: Inputs, processes, products, outputs, and outcomes. Products and outputs are the results that occur in an organization; outcome is the result outside an organization (Chyung, 2005). Input is raw material; process is how to do it; products are temporary results in process; and output is the organization's achievement. As a product delivered to society; outcome is an effect for society (Porter, 2005). Kaufman (2006: 6-16) affirms that OEM is a stage for evaluators to determine the right evaluation model.

Model	Input	Process	Product	Output	Outcome
Formative Summative		*Formative*	*Summative*	----------	
CIPP	*Context Input*	Process	Product	----------	
CSE	*Stage 1*	*Stage 2*	*Stage 3*	*Stage 4*	*Stage 5*
Stake	*Antecedent*	*Transaction*	*Outcome*	----------	
Tyler	*Goal 1 Identification*	*Attainment*	----------		
Provus (DEM)	*Installation*	*Implementa Tion*	*Fulfil Objectives?*	----------Cost---------- Benefit	
			(Depending upon objectives)		
Sciven's Goal Free	----------				
Stake Resp	----------				

Source: Kaufman and Thomas (1980: 137).

Figure 6. Relationship of OEM with Several Evaluations.

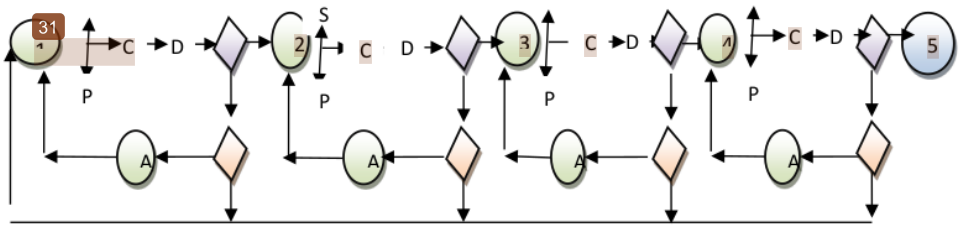
OEM is a stage for evaluators to determine the appropriate evaluation model (Kaufman, 2006: 10-16). Based on this understanding, it is necessary to carry out a mapping to place an appropriate evaluation stage. Based on the OEM stage

description, the appropriate DEM stage is the interim product (temporary product). The interim product describes the relationship between the program process and the temporary product. Mapping via OEM is compatible with the evaluation similarity that underlies the gap theory. The evaluation model with a substance based on the gap theory (between standards and observations, and between intention and implementation) of the Stake's Model is The Discrepancy Evaluation Model (DEM). These models emphasize the gap theory as a tool for making judgments based on standards and performance (Provus, 1969: 9,18). Stake's difference is that there are additional congruence activities (conformity between instances and observations) and contingencies (logical relationships in Antecedents, Transactions, and Outcomes). DEM is in the process of repairing, recycling, or stopping the program.

The Discrepancy Evaluation Model (DEM), designed by Malcolm Provus in 1969, is an effective way to evaluate academic programs. DEM is called program gap evaluation. The program gap is a condition between what is expected in the plan and generated in program implementation. Gap evaluation is intended to determine the level of conformity between the program's standards and the actual appearance of the program. Standards are the criteria that have been developed and established with significant results. Provus (1969) defines evaluation as a tool to make a judgment on the advantages and disadvantages of an object based on standards and performance. This model is also considered a constructive approach and oriented towards systems analysis (Provus, 1969: 10-14; Steinmetz, 2000: 135).

DEM offers a systematic pragmatic approach to a variety of evaluation needs. DEM can be utilized to structure important information gathering both for information and making decisions. The main emphasis of the DEM is on self-evaluation and systematic improvement of a program.

DEM divides the evaluation stage into five stages: Program Design, Program Operation, Program Interim Products, Program Terminal Products, and Program Cost. Provus argue that all programs have a life cycle. Because a program consists of development steps, many evaluation activities mean integrating integration in each of its components.



(Source: Provus 1969: 13)

Figure 7. Flowchart of DEM Evaluation Process Phases

Based on the stages of the combination of the Stake's Model with DEM, the steps of the Antecedents, Transaction, Interim Product, abbreviated ATIp model is produced. In the ATIp evaluation model, there are several definitions related to standard, observation, and intensity. Standard is a benchmark/measure that must be met, and that is expected by the stakeholder / government and has been set. In this article, the standard formulation is based on the academic supervision guidebook (2017), four characters of 21st-century learning skills; Permendiknas RI, (No. 21,22,23,24, 2016). Intense is what the teacher means. Observation is what the observer feels. The stages of the ATIp evaluation process are described as follows:

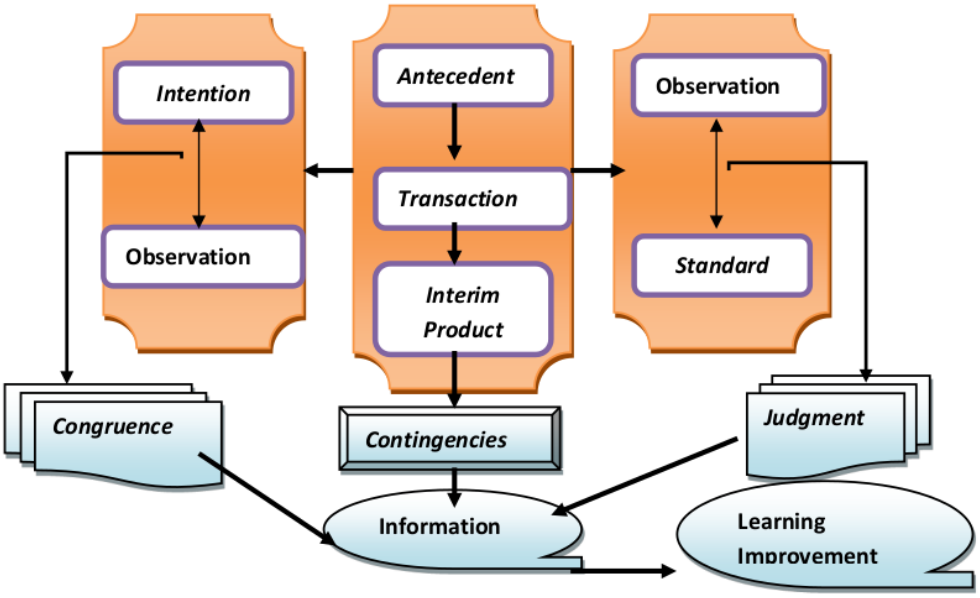


Figure 9. Evaluation Process Phases through *ATIp*

There is some additional information from the figure: 1) judgment is the gap/conformity between standards and observations; 2) congruencies are the gaps/matches between intention and observation; 3) contingencies are the gaps/relationships in antecedents, transactions, and interim products. The assessment results of the activities of judgment, congruencies, and contingencies produce information used to improve learning.

Based on the explanation above and clarified with the figure, an evaluation model's conceptual framework on 4 C-based learning supervision is produced. The issue of post-learning supervision feedback is adopted through continuous evaluation-supervision activities. The MESp 4C conceptual framework results in the relationship of 6 cells of the Stake model modified and compatible with the learning supervision stages. The six MESp 4C cells are described as follows:

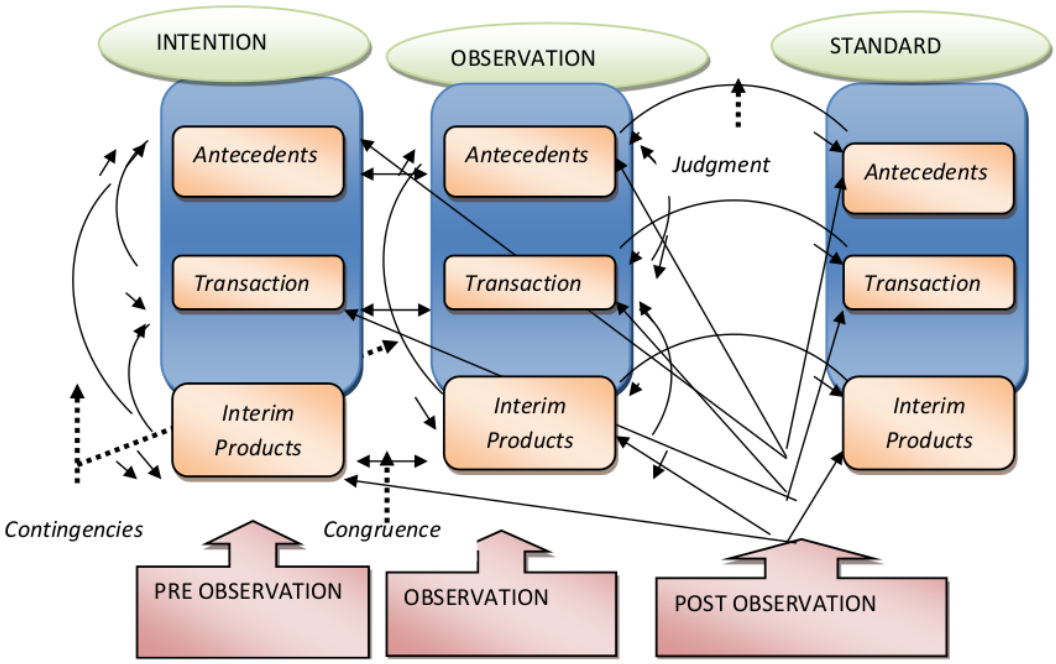


Figure 8. Relationship of 6 Cells of MESp 4C's and Learning Supervision Phases

5. Conclusion

The quality of teacher learning will have an impact on the quality of graduate, the quality of supervision will affect the quality of learning, and evaluation is carried out to assess the extent to which the supervision process is carried out. The learning in the 21st-century era is required to create the learning with 4 (four) character skills including Critical Thinking and Problem Solving, Creativity and Innovation, and Collaboration and Communication (4 C's). The evaluation carried out is expected to provide information on the implementation of 4 C-based supervision.

The studies on supervision were found a lot, but the ones related to the 4 Cs implementation supervision did not exist. The evaluation results' recommendation will have an impact on improving classroom learning by the teachers and the evaluation of the principal's mastery as a supervisor regarding the implementation of 4 C's. This article will lead to the conceptual framework of developing an appropriate evaluation model based on the stages of learning supervision based on 4 C's.

MESp 4C's is built based on five stages. The first is based on the relevance of the learning stages (planning, learning, and assessment processes) with the learning supervision stages (pre-observation, observation, and post-observation), as well as the evaluation stages of the Stake model (antecedent, transaction, outcomes). Second, it is necessary to modify the Stake evaluation model with other evaluation models through the Organizational Elements Model (OEM). OEM is a stage for

evaluators to determine the appropriate evaluation model to use. Proper modification of the evaluation model was obtained, namely The Discrepancy Evaluation Models (DEM). The Interim Product stage was more appropriate to use than the outcome one so that the evaluation model stage became Antecedent, Transaction, and Interim Product (ATIp). Third, every step of 4C's implementation supervision will always be evaluated. Fourth, there were feedback activities (self, peer, superior) to produce continuous evaluation-supervision learning activities, based on the 360º feedback theory. Fifth, it made MESp 4C's like an evaluation model with a modified six cells of the Stack model. MESp 4C's was equipped with the data on the suitability of the descriptions between instances and observations, the assessment data between observations and standards, contingencies and congruence data, and feedback activity data.

Recommendations and Research Limitations

The research recommendation is the need to compile the MESp 4C's design and to conduct trials in several schools. This study's limitation is that the data on the results of the mod,el effectiveness test cannot be obtained quickly because it requires an extended trial period and involves many schools.

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