

## Increased Utilization of Follow Up Results of Simpego Application-Based Knowledge and Skills Assessment Through Self-Reflection of Teachers Independency

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### ABSTRACT

In an effort to improve student achievement outcomes optimally, teachers must be able to identify students' abilities to absorb and understand the knowledge they convey. The Teacher Reflection process is very useful for improving the quality of learning carried out by teachers in the classroom, especially as a solution to improve the understanding of problematic students. The purpose of this study was to determine the level of effectiveness and efficiency of various components of the teacher's learning. This research methodology uses a Research and Development (R & D) approach, namely by building a Pedagogic Assessment System (SIMPEGO) so that it can integrate student achievements before and after teacher reflection. The form of action taken is to plan supervisory actions through self-reflection of the teacher independently and followed by the utilization of the results of the knowledge and skills assessment. The research stages consist of 3 cycles, namely: (1) planning, action, observation, and reflection; (2) assignments, discussions, directions, and mentoring; (3) guidance and training. The results showed that overall students who did not complete or had problems in the basic competencies of a subject experienced an increase in learning outcomes after these students received remedial improvement and enrichment programs by the teacher. This study prove that the teacher's self-reflection activities are very effective in increasing the use of follow-up on the results of the Simpego application-based knowledge and skill assessment.

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## Introduction

Teachers as the spearhead of education in the classroom must have broad knowledge, planning, implementation and insight into pedagogic competencies (Destiana and Utami, 2017). However, the reality on the ground, based on the results of checking documents on academic supervision activities in the standard process of teachers, has not been optimal in carrying out their duties properly. It was found that teachers do not yet have a remedial program and enrichment of knowledge and skills assessment results such as the results of

daily assessment analysis which can be followed up in the form of remedial programs and increased enrichment.

Efforts to assess students are closely related to foresight and accuracy in identifying, formulating, packaging and describing strategies, as well as supporting student assessment follow-up program methods. This shows the ability of standard processes in the pedagogical scope of teachers to be developed and functioned optimally. Therefore, teachers must have pedagogical abilities in carrying out standard processes, especially in the classroom. Through professional pedagogic competence, teachers are expected to be able to display and develop themselves in accordance with the pedagogic potential of utilizing the results of the assessment which in turn can improve the quality of education in their institutions (Fadilah, 2015).

From our research, based on the results of interviews with teachers and representatives of parents, it was found that the standard process of teacher academic supervision has not been able to analyze the results of the assessment as a follow-up to remedial improvement and enrichment programs as expected. The survey results from academic supervision on process standards and interviews with 20 teachers in schools, only 30% of teachers made follow-up programs for remedial improvements and enrichment based on analysis of student learning outcomes assessments. On the basis of these conditions, the researcher deems it necessary to conduct continuous supervision and assistance in the use of the results of the knowledge and skills assessment with the support of the SIMPEGO application, which makes it easy for teachers to analyze the results of the assessment as a follow-up to the results of the assessment.

Based on the results of observation, monitoring, and academic supervision of SDN Depok Baru 2 teachers regarding the standard process, it was found that teachers at SDN Depok Baru 2 schools had not been able to properly utilize the follow-up on the results of the knowledge and skills assessment. Assessment is a tool to determine student learning progress, both as individuals and members of class groups after he has attended education and learning within a predetermined period of time. Self-reflection in this research is an activity that opens new insights and new experiences to make a teacher more professional. One form of reflection is the Reflective Pedagogy Paradigm method, namely the teacher's ability to build knowledge through reflection in action (while teaching) and planned actions before or after teaching (reflex-on-action).

The purpose of this study was to determine the level of effectiveness and efficiency of various components of learning used by the teacher within a certain period of time which the teacher then followed up on the learning outcomes for students to help improve and improve their abilities.

## Method

The research methodology is a Research and Development (R & D) approach. The form of action taken by the researcher is to carry out a supervisory action plan through self-reflection of the teacher independently followed by the utilization of the results of the knowledge and skills assessment. This is done by the researchers with the hope that the teacher will succeed in utilizing the results of the knowledge and skills assessment in the form of remedial and enrichment improvement programs properly and correctly.

The development of the Simpego Application Model is believed to be a powerful way to increase the effectiveness of teachers' pedagogic competencies. This system makes it easier for teachers to identify needs to measure and map the pedagogic competencies of SDN

Depok Baru 2 teachers so that school principals can use relevant measuring tools and make it easier for school principals as managers in the development of the educational process as well as the sole agent in improving the quality of education that relies on standards and quality of teachers owned.

The development of the Simpego Application Model is the involvement of teachers in determining the effectiveness of the teacher's own pedagogics, so that they can determine the extent to which success has been achieved based on standards or criteria. Thus, there are two elements in each assessment process, namely the determination of standards related to certain criteria, and the assessment of works based on standards and criteria through the simpego application model.

The results of Simpego's output are in the form of assessing teachers' pedagogical abilities according to national standards that are applied to each assessment criteria, namely:

Table 1. Table Name

A	Sangat Baik	91% - 100%
B	Baik	76% - 90%
C	Cukup	61% - 75%
D	Sedang	51% - 60%
E	Kurang	Under 51%

This model also emphasizes the process of self-evaluation. Where, teachers can evaluate themselves, and plan learners to set higher goals (goals) and try harder (effort). In addition, from the Simpego output results, teachers can improve learning outcomes, for several reasons, namely: (a) can focus students' attention on learning objectives, (b) provide information to teachers about things that are still lacking or have not been achieved in learning, (c) can further increase the attention of learners on the Simpego assessment, and (d) increase the motivation of learners.

#### *Subject, Location, and Time of Research*

This school action research was carried out at SDN Depok Baru 2 which is located at Jalan Merpati Raya, Depok Jaya Village, Pancoranmas District. The twenty teachers were SDN Depok Baru 2 teachers.

The implementation time of this school action research is in the second semester of the 2020-2021 academic year for six months from August to November starting from preparation to making reports

#### *Research procedure*

The research procedure carried out in this school action research is in the form of a cycle that will be carried out in 3 (three) cycles with details of the activities of each cycle through the stages: planning, action, observation and reflection as shown in Figure 1.

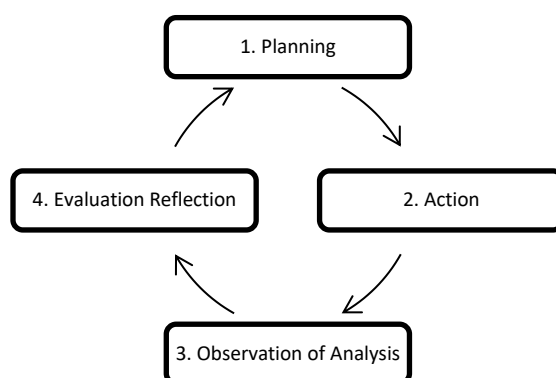


Figure 1. Kemmis and Taggart Model Action Research

### *Preliminary Planning*

The researcher communicates to all teachers the plan for implementing the coaching in groups calmly in the preparation of School Action Research. The researcher arranges a research schedule. The researcher begins to make the Simpego application to facilitate teachers in compiling a recap of the assessment results and making remedial and enrichment improvement programs and implemented for students who must be remedial and enrichment.

First Cycle, Information dissemination for teacher understanding and competence regarding the Implementation Plan for Differentiation Learning and Simpegon Applications was followed by outreach activities for guidance and training for Guidance and Training (BIMLAT) with material for preparing remedial and enrichment improvement programs in a format prepared by discussion. The supervisor provides direction and guidance on the concept of differentiation learning and prepares lesson plans and then analyzes the results of the Simpego application assessment recap for all subjects. With this activity, it is hoped that teachers will understand the steps for utilizing the assessment results in the form of follow-up to remedial and enrichment improvement programs in accordance with those required in Permendikbud No. 16 of 2007 concerning Teacher Competency Standards. Cycle 1 activity ends with Step (1) Cycle (2) Action (3) Reflection and (4) assignment (5) Evaluation. The implementation plan for the first cycle is from August 2, 2019 to August 26, 2019. In simple terms, the workflow in cycle 1 is as follows:

1. Planning:
  - a. Prepare construction materials.
  - b. Prepare the necessary administration during coaching.
  - c. Review the schedule of activities that have been prepared.
2. Action Execution
  - a. Implementing differentiation learning development
  - b. Carry out making Lesson Plan Program (RPP)
  - c. Assign tasks using the Simpego application
  - d. Deliver meeting schedules and mentoring.
3. Observation/ Observation: Observations were carried out by researchers by recording the progress of participants in the guidance of differentiation learning materials with supervisors whether the material had been understood by the participants and could use the Simpego application in the analysis of daily assessment results.
4. Reflection/evaluation:
 

For reflection is carried out with:

  - a. Taking notes from the teachers

- b. Discussing with the participants' questions, the researcher gave reinforcement.
- c. Researchers give assignments

Second Cycle, the researcher presented the results of the assignment, discussed it and the researcher gave direction and assistance for improvement. Coaching and mentoring are carried out based on the strengths and weaknesses of the results of Cycle 1 and continue to provide material. Develop remedial and enrichment improvement programs and discuss programs that are made with classmates to become improvement programs that will be implemented in class with remedial and non-remedial students to then evaluate remedial results. on increasing or decreasing learning outcomes. The activity ended with an assignment for peer teaching in a class that became a remedial improvement program with planning including: a) Lesson Plan Program (RPP) improvement, b) repair tools and materials, c) remedial question sheets. Preparation of improvement programs, Cycle 2 implementation time from 6 to 28 September 2019.

1. Cycle 2 planning is carried out:
  - a. Checking readiness for preparation of Differentiation RPP
  - b. Prepare improvement and enrichment programs
  - c. Remedial and enrichment repair tools and materials
  - d. Activity evaluation instrument
  - e. Remedial repair and enrichment question sheets
2. Observation/ Observation
 

Observations were made by the researcher during cycle 2. Observation sheets were prepared and a journal of activity notes was made to determine the increase in teacher competence from each activity referring to the prepared instrument.
3. Identify the weaknesses and strengths of teachers in the preparation of lesson plans that still need to be improved.
  - a. Carry out the second posttest.
  - b. Comparing the results of cycle 1 and cycle 2
  - c. Give assignments to perfect the preparation of lesson plans and analysis of daily assessments with the Simpego application

Third Cycle, followed by guidance and training as well as accompanying teachers in peer teaching in the classroom from the program that was made. The results of peer teaching are continued by filling in the recap results of students' scores whether there is an increase or not. The third supervision is used as further training material. With self-reflection guidance and self-reflection exercises from the use of the results of a harmonious, democratic, communicative, scheduled assessment, it is hoped that it can improve teacher competence in pedagogic competence in preparing the use of assessment results. Self-reflection of teachers independently as an effort to improve the quality and quality of students at SDN Depok Baru 2. Cycle 3 ends with filling out remedial question sheets and analyzes the results of increasing grades before and after remedial. Cycle 3 implementation time starts from 11 to 21 October 2019

1. Planning.
 

In planning the remedial program 3 (three) things are prepared:

  - a. Delivering the results of the second guidance and exercise to be corrected, followed up and perfected.
  - b. Based on the identification of the results of the first guidance and exercise, it is used as a basis in determining the steps or techniques for implementing the third cycle of teacher mentoring and training

- c. Contacting the teacher for follow-up peer teaching.
  - d. Instrument preparation for the peer teaching cycle.
2. Implementation of cycle 3: Action cycle 3 (three) is teacher peer teaching. The things to do are: Check the results of the assignments given, then provide direction and guidance to improve the results. Carry out the second managerial supervision according to the schedule, using the instruments that have been prepared. Discuss the results of the second supervision in the context of fostering the competence of school principals. 3). Observation/observation. Observations were made by researchers during peer teaching activities, by noting the development/improvement of each stage that would be used as research data on weaknesses and successes in reporting. Followed by guidance and training as well as assisting teachers in peer teaching in the classroom from the program made. The results of peer teaching are continued by filling in the recap results of students' scores whether there is an increase or not. The third supervision is used as further coaching material. With self-reflection guidance and self-reflection exercises from the use of the results of a harmonious, democratic, communicative, scheduled assessment, it is hoped that it can improve teacher competence in pedagogic competence in preparing the use of assessment results. Self-reflection of teachers independently as an effort to improve the quality and quality of students at SDN Depok Baru 2.

## Results and Discussion

### *Assessment*

Assessment is the main activity in the learning process. Assessment is an activity to measure the achievement of the level of success or failure of a learning. Assessment must be an ongoing process in a series of teacher teaching plans for one semester and school year. The scope of the assessment includes aspects of attitudes, aspects of knowledge, and aspects of skills that are carried out to monitor processes, learning progress, and improve learning outcomes (Primanisa and Zahriani, 2020).

Assessment is the process of collecting and processing information that is used to make decisions regarding education policies, quality of education, quality of education programs, quality of curriculum, quality of teaching, or the extent to which students have acquired knowledge about the teaching materials they have taught (Ralph Tyler, 1950). According to the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 23 of 2016 concerning Educational Assessment Standards and Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 4 of 2018 concerning the assessment of learning outcomes defines assessment as the process of collecting data and processing information to measure the achievement of student learning outcomes. In the 2013 curriculum the assessment techniques implemented include attitude assessment, knowledge assessment, and skills assessment. Attitude assessment is an activity to determine the tendency of students' spiritual and social behavior in everyday life inside and outside the classroom as a result of education.

Knowledge assessment is an assessment carried out to determine student mastery which includes factual, conceptual, and procedural knowledge as well as low-level thinking skills up high. Skills assessment is an assessment carried out to determine the ability of students to apply knowledge to perform certain tasks in various contexts according to indicators of competency achievement. The results of the assessment that have been analyzed by the teacher in order to obtain information about the achievement of student competence in all subjects are then used and followed up by the teacher in the form of (a) making reports on

the progress of students, (b) rearrange all learning materials after seeing the results of the daily assessment, (c) make improvements and refinement of the assessment instrument, (d) design the learning program at the next meeting, (e) fostering students who need to improve their learning mastery. In accordance with the opinion assessment is useful for knowing the extent to which the learning objectives have been achieved. Follow-up on the results of the learning assessment carried out by educators is always guided by the results of the evaluation that has been carried out through test, assessment, and measurement activities. Advanced programs that can be carried out by educators are in the form of remedial and enrichment (Taufina & Chandra, 2018).

### *Teacher Self-Reflection*

Teacher self-reflection according to Göker (2016) is a reflective action that can improve the quality of learning carried out by teachers in the classroom. Teacher reflection can help the level of teacher professional development (Dervent, 2015). Self-reflection can be done by conducting reflection journals, interview reflections, conferences, peer observation, group discussions, or more sophisticatedly using videos, blocks, and electronic portfolios. Reflection encourages teachers to confront prior assumptions about teaching and learning, to question their own teaching practices, and to investigate not only what works in the classroom but also why it works. Furthermore, according to Firdyiwiek and Scida (2014), teacher self-reflection is a good procedure that can be used and makes teaching practice better. It is hoped that the results of teacher self-reflection can improve the quality of learning carried out by teachers in the classroom (Goker, 2016).

The remedial program is a learning program intended for students who have not reached the Minimum Completeness Criteria-Basic Competence (KKM-KD) subject matter, this program aims to facilitate students to achieve optimal learning outcomes. In the implementation of remedial programs, it can be done by providing individual and group guidance in the form of special tasks. Guidance can be provided through specific training assignments and peer tutoring. Enrichment program is learning that is given to students who exceed the KKM-KD. The content of the lesson can be carried out in the form of group work, independent study and application.

### *System*

Applications are programs created by users that are intended to perform a specific task (Kadir, 2003). Applications are divided into two parts: (1) specialist software applications, which are designed to perform specific tasks, (2) packaged applications, a program with integrated documentation designed for specific types of problems. In line with the understanding of the application by Supriyanto (2005) the application performs the required command activity process according to user requests with a specific purpose. With the application, humans can run commands through computer components that humans use to provide solutions as desired.

### *Simpego (Pedagogic Assessment System)*

The implementation of quality education requires teachers who are professional in its implementation. Professional predicate is one of them in pedagogic competence related to the management of students, for example, teachers have not been able to follow up using the results of follow-up assessments properly, so we need a system that measures and maps the results of daily assessments students accurately and easily.

The development of the Simpego application model is believed to be a powerful way to increase the effectiveness of teachers in analyzing the results of daily assessments into student data who must receive follow-up on the assessment results in the form of remedial

or enrichment by making remedial improvement programs or enrichment from the results of teacher self-reflection which can then help students achieve mastery. the minimum of these remedial results and those that have exceeded the KKM can be added with enrichment of materials and tasks. Development of the Simpego application model is the involvement of teachers in determining the effectiveness of the teacher's own pedagogy, so that it can determine the extent to which success has been achieved in the follow-up process of assessment results to be analyzed and become complete data Thus, there are two elements in each assessment process, namely the determination of standards related to certain criteria, and an assessment of the completeness of the minimum criteria for basic learning outcomes. Make standards and criteria through the Simpego application.

Simpego's output results are in the form of a data recap of all students who have analyzed learning completeness and data on students who need remedial based on incomplete Basic Competencies (KD) and students who complete KD to get enrichment.

The scope of the Simpego model developed is in accordance with the teacher pedagogical competency standards listed in Permendikbud Number 16 of 2017 as follows:

Table 2. Pedagogic System at SDN Depok Baru 2

No.	Teacher competence	Teacher Competence Elementary School (SD/MI)
1.	Mastering the characteristics of learners from physical, moral, social, cultural, emotional, and intellectual aspects	1.1 Understand the characteristics of elementary school-age learners relating to physical, intellectual, social emotional, moral, spiritual, and socio-cultural backgrounds. 1.2 Identify the potential of elementary school-age learners in five elementary school/MI. 1.3 subjects Identifying the initial abilities of primary school-age learners in five elementary school-age subjects in five elementary school/MI 1.4 subjects Identifying learners' difficulties in five subjects.
2.	Mastering learning theories and educational learning principles	2.1 understand various learning theories and principles that educate related to five subjects SD / MI. 2.2 apply various approaches, methods, and learning techniques that educate creatively in five subjects SD / MI 2.3 apply thematic approach especially in the classroom - early classes of elementary / MI
3.	Develop a curriculum related to the subjects of the field of development	3.1 understand the principles of curriculum development, determine the objectives of the five elementary/MI subjects 3.2 determine appropriate learning experiences to achieve the objectives of the five SD/MI subjects 3.3 selecting five SD/MI subjects related to the learning experience and learning objectives 3.4. arranging learning materials correctly with the right approach chosen in accordance with the SD/MI approach
4.	Organizing educational learning	4.1 understand the principles of educational learning design 4.2 develop learning design components 4.3 Develop a complete learning design, both for activities in the classroom, laboratory, and in the field. 4.4. Using learning media according to the characteristics of students and five elementary school subjects/ Mi to achieve complete learning objectives. 4.5 Make transactional decisions in five elementary/MI subjects
5.	Utilizing information and communication technology for learning purposes	Utilizing information and communication technology in learning



6	Facilitate the seeding of the potential of learners to actualize various potentials owned	6.1 Provide various learning activities to encourage students to achieve optimal learning achievement 6.2 Providing various learning activities to actualize the potential of students including their creativity
7.	Communicate effectively, empathically, and politely with learners	7.1 Understand various effective, empathic, and polite communication strategies, with a distinctive language in classically built learning. 7.2 Communicate effectively, empathically, and politely with students with a distinctive language in learning interactions that are built cyclically from (a) preparing students' psychological conditions, (b) giving questions or assignments as invitations to students to respond, (c) student responses, (d) teacher reactions to student responses, and so on.
8.	Organizes conducts assessment and evaluation of processes and learning outcomes	8.1. Understand the principles of assessment and evaluation of learning processes and outcomes in accordance with the characteristics of the five subjects of SD/MI 8.2. Determine the aspects of the learning process and outcomes that are important to be assessed and evaluated according to the characteristics of the five SD/MI subjects.
9.	Utilize the results of the assessment and evaluation for the benefit of learning	9.1. Using information on assessment and evaluation results to determine learning completeness. 9.2 use information on assessment and evaluation results to design remedial and enrichment programs. 9.3 communicate assessment and evaluation results to stakeholders 9.4 use information on learning assessment and evaluation results to improve learning quality.
10.	Reflective take action to improve the quality of learning	10. 1 Reflect on the lessons that have been implemented. 10.2 utilize the results of reflection for the improvement and development of five elementary/MI subjects. 10.3 conducting classroom action research to improve elementary/MI subjects

Self-reflection activities are useful in developing teacher professionalism (Avalos 2011). The benefit of this is that it helps teachers gain a maximum understanding of the material about themselves, their profession and how they can become effective, efficient teachers, and make students successful in learning. Besides that, self-reflection can also help teachers to be able to carry out learning by carrying out activities to explore the potential that exists within themselves, self-reflection also makes it easier for a teacher to improve which things are weaknesses and find solutions they need in enhance their professional development. Therefore, as shown by the results of this study, self-reflection helps teachers make a high contribution to their professional development efforts, and the subsequent impact will certainly have a positive effect on competencies that can be improved by teachers and on the effectiveness of teaching and learning activities in three aspects, namely: (1) mastery of concepts/teaching materials (2) knowledge of pedagogical knowledge (pedagogical knowledge); and (3) packaging of material/content in learning (pedagogical content knowledge).

Self-reflection is developed through the aspect of a teacher's perception of their ability to pedagogic and substantive knowledge, understanding of ideal learning characteristics, teachers can perceive themselves in lesson plans, methods, media and student learning outcomes. The self-reflection of teachers in relation to their efforts to develop their professionalism as stated in the points above is directed to find out the extent to which teachers as professionals carry out activities or signs that must be carried out by a professional teacher. With this, teachers can evaluate themselves, whether they have carried out their duties as well as possible or not. In other words, teachers will be able to find out their weaknesses and strengths, and later will encourage them to move on to improve their

competence. If we compare it with teachers who never reflect on their professional abilities, they may not be compelled to make efforts to develop their professionalism, starting from how they plan lessons, prepare the learning process to later evaluate the achievement of expected student competencies (Herawati, R. 2017).

The various efforts made by teachers in developing their professionalism can be seen from various competency improvement activities through training, workshops, or seminars, including whether they really study all textbooks, both teachers and students, to improve knowledge competence in the field of science being taught. Furthermore, the activities carried out by teachers in developing their professionalism can also be seen whether teachers actively participate in scientific discussion forum activities, either through teacher activity groups or discussion group forum activities (FGD).

Whether the teacher often has discussions with colleagues at school as if it were about academic matters is also a part that needs to be considered in order to increase their professionalism in addition to reading scientific books. How a teacher makes lesson plans, scenarios and learning evaluations, whether they proactively seek and explore the latest information regarding these three things, or whether they get it from existing training or workshops is also part of being explored in teacher professional development efforts or activities.

A further implication of this research is as is well known that teacher professional development is carried out in order to improve teacher quality standards. Therefore, the professionalism in question is of course inseparable from technical competence, tips and tricks on how teachers can understand and organize in such a way their role and function as an educational process for both themselves and students (Loughran, 2010). It is understood together that teachers play an important role not only in the formation of student academic achievement in schools, but also in the development of student character so that this requires professional attitudes and behavior of teachers to always develop. The self-development and professional development of teachers from the results of their self-reflection becomes a necessity.

Teachers in their teaching role have logical consequences which are not only required to master the content of the subject matter and a number of pedagogical knowledges, but also have to understand how the two can be combined so that they become strengths as professional teachers, both regarding knowledge of pedagogical content, knowledge of content packaging in meaningful learning. In addition, professional teachers should have the ability to special language in order to be able to facilitate various good expressions and various ideas in learning and teaching, so it must remain a priority part for every teacher to reflect on (Loughran, Berry, & Mulhall, 2006).

Based on the theoretical study above, in order for student learning outcomes to increase from the results of the assessment of learning outcomes that are weak under the Minimum Completeness Criteria, a remedial and enrichment program is needed which is implemented by the teacher by making improvements to questions, media, approaches, and methods. Focusing on improving learning outcomes through self-reflection teachers can independently improve student learning outcomes. With a well-structured program starting from learning planning, carrying out assessments, analyzing the results of the assessment with the Simpego application, to following up on the results of the assessment into a remedial improvement program and enrichment with teacher self-reflection independently and implemented in the classroom, the remedial program will guarantee the results of improving learning outcomes. Students and school quality. Guidance Training in the form of teacher

self-reflection independently can be an alternative problem solving to equip teachers in increasing professionalism in pedagogic competence using follow-up results from class assessments.

Teacher self-reflection independently is needed to improve student learning outcomes, one way is by utilizing the results of follow-up student assessments that are not complete in the basic competencies of lesson content with remedial programs whose improvements are individually or in groups through various remedial models of questions, media, methods or strategies used in the program. The main step of this research is through Training and Education Self-reflection teachers can independently monitor the use of the results of follow-up assessments based on the Simpego application, improving student learning outcomes can be realized from quality remedial and enrichment improvement programs.

Table 2. Achievement of New Depok SDN Student Results 2 in SIMPEGO

Teacher's Pedagogic Competence	Ideal Achievement	Real Condition	Condition Gap	Alternative Trouble-shooting	Results Achievement
Conducting assessments and evaluations of learning processes and outcomes	100% of teachers Conducting assessments and evaluations of learning processes and outcomes	85 % of teachers Conduct assessments and evaluations of learning processes and outcomes	15% of teachers have not held assessments and evaluations of learning processes and outcomes	Guidance and practice through teacher self-reflection independently supported by the Simpego application	100% of students complete in achieving minimum completeness criteria.
Utilize the results of the assessment and evaluation for the benefit of learning	100% of teachers carry out the use of the results of the assessment and evaluation for the benefit of learning	65% teachers carry out the use of the results of the assessment and evaluation for the benefit of learning	35% of teachers use the results of the assessment and evaluation for learning purposes	Guidance and practice through teacher self-reflection independently supported by the Simpego application	100% of teachers are able to use the Simpego application for the use of assessment and evaluation results for learning purposes
Reflective take action to improve the quality of learning	100% of teachers Take reflective action to improve the quality of learning	65% of teachers Take reflective action to improve the quality of learning	35% of teachers have not taken reflective action to improve the quality of learning	Guidance and practice through teacher self-reflection independently supported by the Simpego application	100% of teachers are able to make remedial improvement programs and enrichment of reflective activities to improve the quality of learning

Mastering the characteristics of students from the physical, moral, social, cultural, emotional, and intellectual aspects in the assessment	100% of teachers Mastering the characteristics of students from the physical, moral, social, cultural, emotional, and intellectual aspects	65% of teachers do Mastering the characteristics of students from the physical, moral, social, cultural, emotional, and intellectual aspects	35% of teachers have not mastered the characteristics of students from the physical, moral, social, cultural, emotional and intellectual aspects	Guidance and practice through teacher self-reflection independently supported by the Simpego application	100% of teachers are able to make student learning journals from activities Mastering the characteristics of students from physical, moral, social, cultural, emotional and intellectual aspects
Mastering learning theory and teaching principles of learning in assessment	100% Mastering learning theory and teaching principles in assessment	70% Mastering learning theory and teaching principles in assessment	30% of teachers have not mastered learning theory and teaching principles of learning in assessment	Guidance and practice through teacher self-reflection independently supported by the Simpego application	100% of teachers are able to make learning video media in activities Mastering learning theory and learning principles that educate in assessment
Develop curricula related to development and assessment subjects	100% of teachers develop curriculum related to development and assessment subjects	70% of teachers develop curricula related to development and assessment subjects	30% of teachers have not developed a curriculum related to development and assessment subjects	Guidance and practice through teacher self-reflection independently supported by the Simpego application	100% of teachers are able to make Basic Competition mapping of all subjects
Organizing educational learning and thematic assessment	100% teacher organize educational learning and thematic assessments	80% of teachers conduct educational learning and thematic assessment	20% of teachers have not conducted educational learning and thematic assessment	Guidance and practice through teacher self-reflection independently supported by the Simpego application	100% of teachers are able to make Minimum Completeness Criteria (KKM) assessments from activities Organizing educational learning and thematic assessments

Utilizing information and communication technology for learning and assessment purposes	100% of teachers use information and communication technology for learning and assessment purposes	80% of teachers use information and communication technology for learning and assessment purposes	20% of teachers have not used information and communication technology for learning and assessment purposes	Guidance and practice through teacher self-reflection independently supported by the Simpego application	100% of teachers are able to carry out learning games from activities Utilizing information and communication technology for the benefit of learning and assessment
Facilitate developer building the potential of students to actualize the various potentials they have and assess	100% of teachers Facilitate the development of the potential of students to actualize various potentials and assessments	75% of teachers Facilitate the development of the potential of students to actualize their various potentials and assessments	25% of teachers have not facilitated the development of students' potential to actualize their various potentials and assessments	Guidance and practice through teacher self-reflection independently supported by the Simpego application	100% of teachers are able to carry out making art performance video competitions from activities Facilitating the development of the potential of students to actualize various potentials and assessments.
Effectively communication, empathically, and politely with students in conducting attitude assessments	100% teachers Communicate effectively, empathically, and politely with students in conducting attitude assessments	80% of teachers Communicate effectively, empathically, and politely with students in conducting attitude assessments	20% of teachers have not communicated effectively, empathically, and politely with students in conducting attitude assessments	Guidance and practice through teacher self-reflection independently supported by the Simpego application	100% of teachers are able to make habituation programs before learning starts from communicating effectively, empathically, and politely with students in conducting attitude assessments.

## Conclusion

The results of the overall recap of students who did not complete the basic competencies of subjects showed an increase after students received a remedial improvement program by the teacher from teacher self-reflection through the use of the Pedagogic Assessment System (SIMPEGO). From the initial data, student learning outcomes have completed the Minimum Completeness Criteria (KKM) with good qualifications with an average completeness of 74 percent. In cycle 1, the results of the KKM criteria completion were well-qualified students with an average completeness of 80 percent. In cycle 2, the results of KKM are well qualified with an average completeness of 100 percent. This proves that teacher self-reflection activities are very effective in increasing the use of follow-up on the results of the Simpego application-based knowledge and skill assessment. Suggestions for further research are to examine other variables that might affect student learning outcomes in their classrooms, such

as whether the level of difficulty of the questions, media and methods that are not appropriate in learning to achieve basic competencies, the incompleteness of student learning outcomes are influenced by nutrition and the economy of parents in preparing students' physical conditions, and whether the ease of access to learning during the current pandemic affects student learning outcomes for subjects at school. These various conditions can certainly affect the level of completeness of student learning outcomes.

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