



Improving Teachers' Ability to Implement Hybrid Learning Based on Competency Difference Using The Professional Learning Community (PLC) Model

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Abstract

This study aims to improve the teachers abilities in implementing hybrid learning based on competency differentiation. To achieve this goal, Best Practice research results have done to improve the ability of teachers to do hybrid learning based on competency differentiation using the PLC model. The research subjects were all twenty teachers of SMA Budi Istri Bandung. There were three main things from the teachers's abilities measured after doing hybrid learning based on competency differentiation through the APSTCIRA PLC model,: (1) measuring the implementation of the PLC model APSTCIRA stages, (2) measuring the development of competency differentiation including: critical reasoning, creative, independent, reflecting and appreciating and (3) measuring the differentiation of digital application competencies. In addition to measuring the ability of teachers, the impact on students is also seen, including: learning activity, critical reasoning, creative, reflecting, appreciating, and student learning outcomes. Data analysis is in the form of qualitative interpretation and descriptive summary. The results showed that there was an increase in the teachers' abilities to do hybrid learning based on competency differentiation after implementing the APSTCIRA PLC model. The improvement of the teachers'abilities has an impact on increasing learning activities, critical reasoning, creative, reflecting, appreciating, and student learning outcomes.

Keywords: Professional learning community · Hybrid learning · Competency differentiation

INTRODUCTION

The Educators and education personnel have a strategic position in the National Education System. The government over the last five years has made various efforts to strengthen education infrastructure and make the national development strategy becomes strengthening Human Resources. For this reason, the role of educators and education staff becomes very strategic as the spearhead of development and at the same time as agents of transformation for strengthening Indonesian human resources. In the midst of the rapid development of science and technology, educators and education staff's role are expected not only teaching students and managing education, but also changing children's learning patterns towards Freedom of Learning and internalization of the values of Pancasila Students.

This learning pattern must be in a good quality, considering that the number of Indonesian students is very high, around 49,186,236, including the 7th largest in the world (Budiman, 2017). With that large number of students, if they are educated through a standards-based education system, developing the values of Pancasila Students, having 21st century skills, gaining literacy and numeracy abilities, and other abilities (competency differentiation), it is expected that they will become the golden generation in 2045. A generation that is ready to compete globally and has characters to develop the values of Pancasila Students. The education process should begin from now because based on data and facts so far, it turns out that the challenges and obstacles are very difficult.

Based on data and facts on the current Indonesian education, it shows: (1) the results of the PISA test in 2012 the majority of Indonesian students aged 15 years do not have basic literacy (reading, mathematics and science), technological literacy and numeracy (OECD, 2012); (2) Indonesia's global competitiveness index ranking is 41 out of 138 countries (WEF, 2016 in Budiman, 2017); and (3) the results of the description of students' abilities in the target schools show that: (a) the development of

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21st century skills, namely 4C skills (critical, creative, communication, collaboration) for each subject is still below 65%; (b) the development of students' literacy and numeracy skills is still below 60%.

The obstacles to the learning process during the Covid-19 pandemic have become challenges for educators and education staff in implementing communicative, collaborative, creative, and critical learning strategies. Through effective learning strategies both using internet network (online) and not using internet network (offline) through Limited Face-to-face Learning (PTMT), must be able to encourage interesting and fun learning for students and to overcome the occurrence of *learning loss*.

Learning loss during PTMT found in target schools, generally includes two main things, namely: (1) limited learning time and materials mastered by students during PTMT; (2) the limitations of the competencies mastered by students due to the limited use of methods, models, learning media and digital/technology applications used by teachers; (3) for some teachers who already use Google Classroom (GC), differentiation skills still need to be improved such as: creating material topics in the GC, uploading material files from the drive or from computer files into the GC, inserting e-book links or links to the Ministry of Education and Culture digital books into GC, add material links from youtube into GC, attach other items; Google Docs, G. slides, spreadsheets, and G. Forms; (4) some teachers have not been able to operate the jamboard and insert it into the GC; (5) some teachers have not been able to insert class video meeting links into the GC, and (6) some teachers have not been able to collaborate with GC, Google Meet, and jamboard.

To overcome the *learning loss*, the form of learning must combine virtual learning with face-to-face learning (Sari, 2021). The teachers must applicate learning using various methods, models, learning media, using various digital applications, pleasing students, encouraging students to be active, developing competency differentiation such as: reasoning critically, creatively, being able to reflect and appreciate (Valanides, 1997 and Zohar, 2004). To achieve this goal, a research has been done to improve the ability of teachers to carry out hybrid learning based on competency differentiation through the PLC in APSTCIRA model (Sari, 2021; Valanides, 1997 and Zohar, 2004; Stoll et al, 2006).

This study aims to: (1) improve the ability of teachers to carry out hybrid learning based on competency differentiation through the PLC model APSTCIRA, and (1) increase learning actively, think critically and creatively, reflect, appreciate, and improve student learning outcomes

METHODS

This study is to see the impact of the PLC APSTCIRA model to improve the ability of hybrid learning based on competency differentiation for teachers and students. The research subjects were all 20 SMA Budi Istri Bandung teachers. This research has been carried out from October 1 to November 6, 2021.

The implementation of the PLC Model APSTCIRA in this study refers to the research results by Pichit, Montree and Kulyarat (2012) and Cate Watson (2012) that consists of eight stages. The stages of the APSTCIRA PLC Model include:

1. Aim
Delivering a background of study related to learning loss, determining solutions, strategies and objectives for implementing PLC APSTCIRA Model.
2. Planning
Planning a competency differentiation-based hybrid learning strategy that will be implemented by the teacher. As well as formulating the composition of the syllabus, lesson plans, and competency differentiation-based hybrid learning assessments that must be made by the teacher.
3. Share
Sharing the plan no. 2 to teachers and principals, then delivering materials online to all teachers about competency differentiation-based hybrid learning such as: (1) critical reasoning, (2) creative, (3) independent, (4) reflecting and (5) appreciate. As well as delivering differentiation of digital application competencies such as the ability to use: (1) google classroom, (2) google meeting, (3) jamboard. Sharing the abilities to use Google Classroom such as: (1) how to create material topics in GC, (2) upload material files from a drive or from a computer file into the GC, (3) inserting e-book links or links to Ministry of Education and Culture digital books into the GC, (4) add material links from youtube into GC, (5) attach other items; Google Docs, G slides, spreadsheets, images, and G forms. Furthermore, the teachers are assigned to work in a group of two with the same subjects



they teach, and assigned them who have already mastered the material to guide to others who have not mastered yet. Next, give each group member the task of making a syllabus, lesson planning (RPP) and competency-based learning assessments

4. Teaching

Teachers carry out hybrid learning based on competency differentiation to develop: (1) critical reasoning, (2) creative, (3) independent, (4) reflecting and (5) appreciate. As well as delivering differentiation of digital application competencies such as the ability to use: (1) google classroom, (2) google meeting, (3) jamboard. Sharing the abilities to use Google Classroom such as: (1) how to create material topics in GC, (2) upload material files from a drive or from a computer file into the GC, (3) inserting e-book links or links to Ministry of Education and Culture digital books into the GC, (4) add material links from youtube into GC, (5) attach other items; Google Docs, G slides, spreadsheets, images, and G forms.

5. Check

Arrange a learning supervision schedule, then carry out supervision of the competency differentiation-based hybrid learning process carried out by the teacher.

6. Improvement

Furthermore, the teachers are assigned to work in a group of two with the same subjects they teach, and assigned them who have already mastered the material to influence the others who have not mastered yet. In addition, teachers are assigned to form learning professional communities either through MGMP in schools, or with MGMPs in the City of Bandung and West Java Province, or other communities, so that teachers are even more proficient in implementing competency-based hybrid learning.

7. Revising

Giving assistance, guidance, reflection and direction on follow-up actions that must be taken by teachers, such as implementing Continuous Professional Development (PKB)

8. Assessment

Doing an assessment to teachers in implementing the PLC model APSTCIRA.

The abilities measured in the teacher after carrying out hybrid learning based on competency differentiation through the APSTCIRA PLC model includes three main things: (1) measuring the implementation of the PLC model APSTCIRA stages, (2) measuring the development of competency differentiation including: critical reasoning, creative, independent, reflecting and appreciating and (3) measuring the differentiation of digital application competencies. In addition to measuring the ability of teachers, the impact on students is also observed, such as: active learning, critical reasoning, creative, reflecting, appreciating, and student learning outcomes

RESULTS AND DISCUSSION

Measurement of the Implementation of the PLC Model of the APSTCIRA Model by the Teacher

Measurement of the implementation of the stages of the PLC model APSTCIRA can be seen in Figure 1.

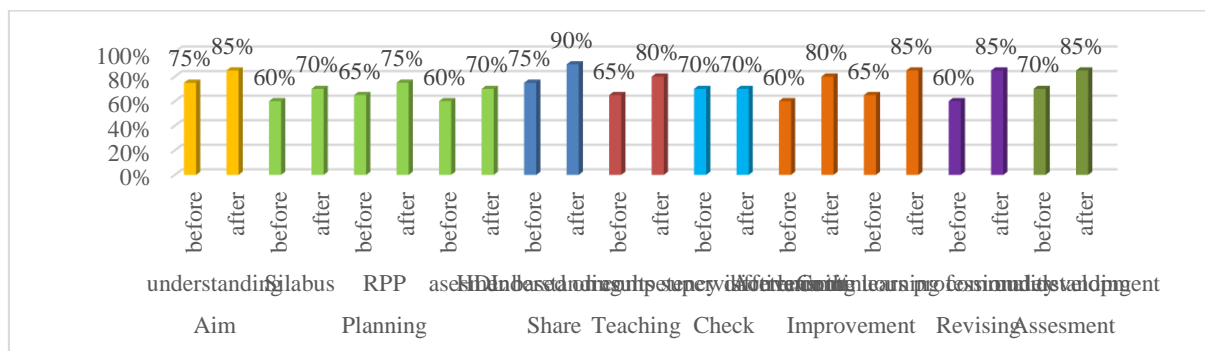


Figure 1. Measurement of the implementation of PLC stages of the APSTCIRA model



The APSTCIRA PLC model that has been implemented in this study has eight stages, namely: (1) aim, (2) planning, (3) share, (4) teaching, (5) check, (6) improvement, (7) revising, and (8) assessment. Measurements were made at each stage of the model. Based on the data in Table 1, it shows that before implementing the APSTCIRA PLC model in general, teachers do not understand the importance and role of each of the eight stages of the APSTCIRA PLC model. This can be seen from the average percentage of measurement results in general around 60%. After the teacher implemented the APSTCIRA PLC model, each of the eight stages of the APSTCIRA PLC model experienced an increase of at least 70% and above.

Measurement of Competency Differentiation Development (Critical Reasoning, Creative, Independent, Reflecting and Appreciating)

Measurement of Competency Differentiation Development (Critical Reasoning, Creative, Independent, Reflecting and Appreciating) can be seen in Figure 2.

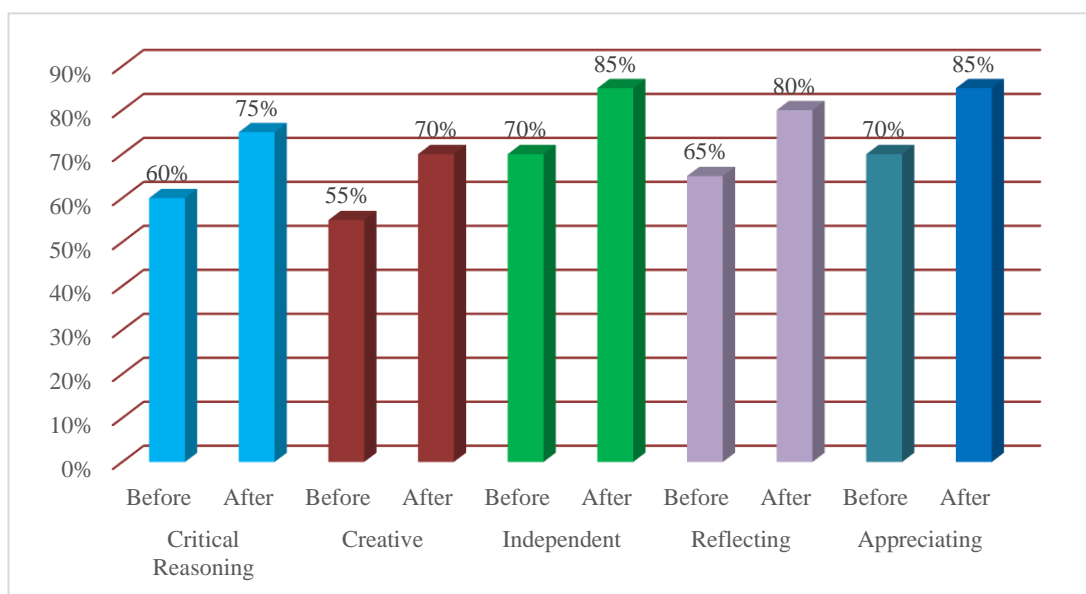


Figure 2. Measurement of Competency Differentiation Development (Critical Reasoning, Creative, Independent, Reflecting and Appreciating)

The data in Figure 2 shows that before implementing the APSTCIRA PLC model in general, teachers are not optimal in developing critical, creative, independent, reflecting and appreciating reasoning competencies. It can be seen from the average percentage of competency measurement results before applying the APSTCIRA PLC model, generally around 65%. After the teacher implemented the APSTCIRA PLC model, each competency experienced a minimum increase of around 75% and above.

Digital Application Competency Differentiation Measurement

Improving the ability of teachers' digital applications can be seen in Figure 3.

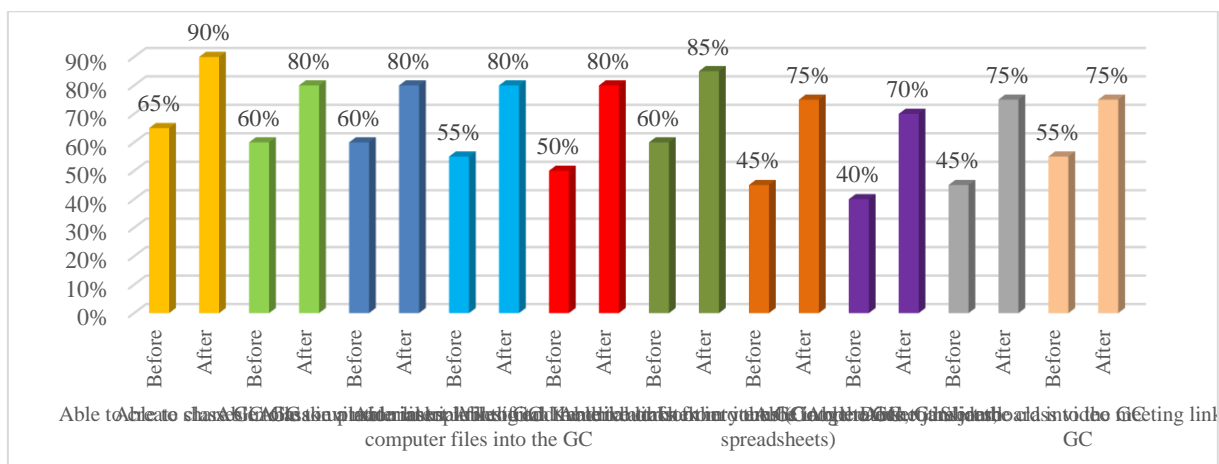


Figure 3. Teacher digital application capability improvement

The data in Figure 3 shows that after the teacher carried out hybrid learning based on competency differentiation through the APSTCIRA PLC model, there is an increase of teachers' digital applications abilities. The digital application capabilities include: (1) creating classes in GC, (2) sharing GC class invitation links, (3) making material topics into GC, (4) uploading material files from the drive or from computer files into the GC, (5) inserting an e-book link or digital book link from the Directorate of Teachers and Education Personnel Kemdikbudristek into the GC, (6) adding material links from youtube into the GC, (7) attaching other items (Google Docs, G. Slides, spreadsheets), (8) operating the jamboard, (9) inserting the jamboard into the GC, (10) inserting the class video meeting link into the GC.

Measurement of Learning Activity Competencies, Critical Reasoning, Creative, Reflecting, and Appreciating, as well as Measurement of Student Learning Outcomes

The measurement of learning activity competence is seen from the activeness of asking questions and during the learning process. The measurement of critical reasoning competence is seen when students make abstractions from each material. Meanwhile, the creative competence is seen when students upload assignments and work on jamboard assignments. The measurement of reflecting competence is seen from the activeness of students giving reflection. And the appreciationability is seen when students give appreciation during online learning, Measurement of competence in learning activities, critical reasoning, creative, reflecting, and appreciating, as well as measuring student learning outcomes, can be seen in Figure 4.

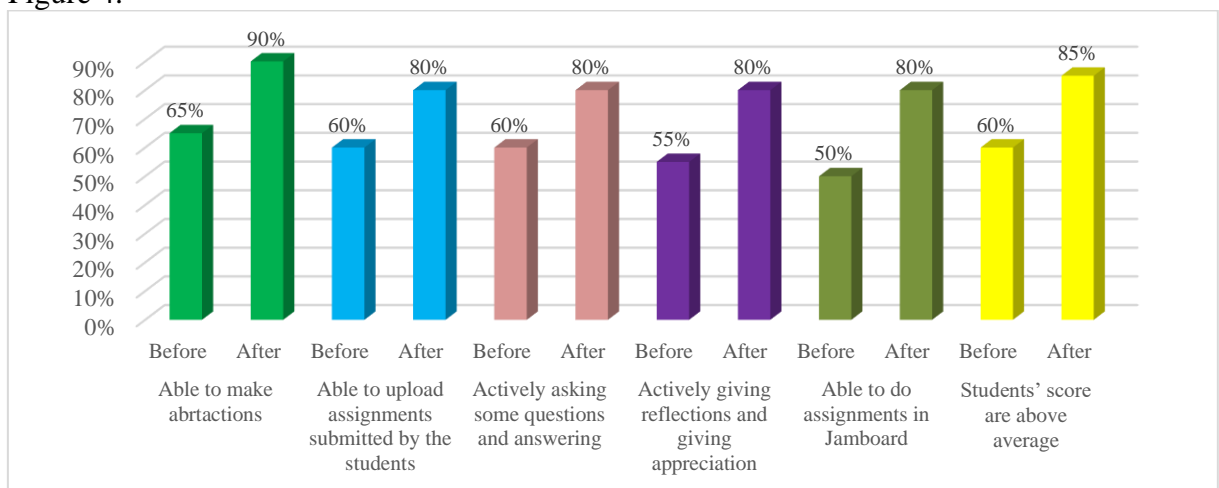


Figure 4. Students' Abilities Data Before and After Guidance and Training



The data in Figure 4 shows that after the teachers carried out hybrid learning based on competency differentiation through the PLC model APSTCIRA, there is an increase in learning activity, critical reasoning, creative, reflecting, and appreciating, as well as measuring student learning outcomes.

The results showed an increase in the teachers' ability to carry out hybrid learning based on competency differentiation after implementing the APSTCIRA PLC model. Improving the ability of teachers has an impact on increasing learning activities, critical reasoning, creative, reflecting, appreciating, and student learning outcomes. The increase was due to two main reasons, namely: (1) teachers were trained to implement the APSTCIRA PLC model independently; (2) because of the PLC process, through: (a) discussions and mutual questions and answers between teachers who do not understand and other teachers who already understand and are proficient; (b) collaboration to help and guide other members, who are not proficient yet; (c) each group is assigned to be responsible for group members who do not understand and are not proficient; (d) each group in turn presents the results, the teacher is assigned to carry out classical discussions and actively ask questions, and (e) reflect. These two main things lead to increase teachers abilities. This is in accordance with the opinion of Chow (2013) and Hallam (2015), explaining that the practice community deepens their expertise by sharing topics, problems, and knowledge through continuous interaction. In this case, the intended community of practice is related to the professional learning community. Assumptions that arise regarding adult learning refer to the building of professional learning communities. This is reinforced by the opinion of Eleonora Villegas-Reimers (2003) that peer-teaching, networking, collaboration and partnership will increase understanding and skills in teacher professional development. This opinion is reinforced by the opinion of Day & Sach (2005) which states that professional development is a process that individually and collectively, review each other, renew, and expand commitment as agents of change to increase understanding and skills. Furthermore, Day, Christopher & Sach, Judyth ed also revealed that the process involves and develops knowledge, skills, planning and good practice independently and collaboratively.

Collaboration offers a simultaneous process of supporting individual and organizational capacity building that assumes a shared focus, an obligation to learn, and a disciplined approach to achieve common goals (Chow, 2013). Furthermore, collaborative learning communities can inspire and encourage teachers to commit to professional development as a priority in their work (Hurd, 2010; Chow, 2013; Adey, 2013; Hord, 2008; Villegas-Reimers, 2003).

CONCLUSION

The results showed that there is an increase in the teachers' abilities to carry out hybrid learning based on competency differentiation after implementing the APSTCIRA PLC model. Improving the teachers' abilities has an impact to increase learning activities, critical reasoning, creative, reflecting, appreciating, and student learning outcomes.

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