Initial Capability Analysis of Productive Teacher and Training Design Making Learning Module using Flipbook Maker Application

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Abstract: Theaim of this reasearch is to determine the initial ability of productive teachers in making learning

modules using the flipbook maker application and determining the design of training in making learning modules. This research was carried out at SMK N 2 Binjai. This research is a quantitative descriptive study and a theoretical study of the training design for productive teachers to make learning modules uses the Flipbook maker application. The subjects of this study were productive subject teachers at SMK N 2 Binjai. In the testing phase the initial ability of productive teachers was obtained by the ability of teachers in making flipbook maker learning modules that is 62.5% in the less category, after that a theoretical study was carried out to improve the teacher's ability to make modules and decided the training design using academic

supervision of coaching techniques.

1 INTRODUCTION

The report showed by the World Bank (2011: 3) states that the integrity of teacher is the most important factor in improving the quality of education. According to McKinsey in a report released by the World Bank (2011: 3) it is stated that the quality of the education system is not always proportionate with the quality of the teacher. This is in line with what was revealed by Syaodih in Mulyasa (2015: 30) that however good a curriculum is, the results depend on what is done by the teacher and students in the class. Thus the instructor presents an important role both in the preparation and implementation of the curriculum. Based on various opinions, it can be concluded that teachers are an important key in improving the quality of education.

The Southeast Asian Teaching Competency Standard Framework (2010:15) formulates aspects of the teacher's pedagogical competency includes the ability to know the contents of the subjects he teaches, knowing the characteristics of the students he teaches, knowing how to teach his students and how to teach them effectively, preparing effective learning plansand developing learning program based on textbook, guide book and other learning material.

Permendiknas No. 16 tahun 2007 about Competency Standards of Educators and Education Personnel stated that one of the pedagogic core competencies of a subject teacher at the SMA / MA / SMK level is to be able to carry out learning that educates and utilizes information technology for the benefit of learning. One of the pedagogic core competencies is to use learning media and learning resources that are relevant to the characteristics of students and subjects that are taught to achieve the learning objectives as a whole and utilize information and communication technology in the learning being taught.

According to the Guidelines for the Implementation of Teacher Performance Assessment (2012: 10) characteristics of teacher performance include the preparation of teaching materials in a sequential, logical, contextual and up-to-date manner and selecting learning resources / learning media in accordance with learning materials and strategies.

Furthermore, according to Sunartini and Triana (2016: 22-31) there is a significant and positive relation between pedagogic competence and performance working of teacher. So it can be concluded that there is an indirect relationship between pedagogic competence and the ability of teachers to make teaching materials.

According to the Directorate General of Quality Improvement of Educators and Education Personnel (2008: 36) interesting, effective and efficient learning certainly requires innovative teaching materials. For that, a professional teacher is demanded creativity to be able to compile teaching materials that are innovative, varied, interesting, contextual and in accordance with the needs of students.

Based on core competencyindicator of teachers' pedagogic related to using Communication and Information Technology for need learning, an educator must be able to develop learning material based on information and technology. Providing standard learning material can masterylearningapproachandstudents are expected to master the competencies as a whole, according to the speed of learning. Therefore teaching materials should be arranged so that students are more active in learning activities to achieve competence (Depdiknas, 2008: 4).

Good teaching materials should always follow the development of technology, art and the reality of life in an increasingly globalized society (Howe, dkk; 2009: 397 - 404).

A module is a set of teaching materials that are presented systematically so that users can learn with or without a facilitator / teacher. In accordance with Rosenberg (2001: 29), there is a shift in the learning process including from classrooms to places that are not limited and from paper to paperless.

Therefore, the learning modules compiled are made digitally. Digital learning module is a teaching program unit that is arranged systematically and complete manner which is changed into digital form for learning purposes. With the availability of teaching materials in the form of digital learning modules students can reduce the burden of carrying more than 1 (one) package book. Students can learn independently easily because the modules are arranged systematically and completely. Students can study in a laboratory and in an unlimited place with a laptop owned. The existence of this digital learning module can reduce the use of paper so that it will have a good impact on the environment.

Using innovative teaching materials can also be a solution to the obstacles faced in learning (Yamauchi, 2008). Using multimedia in the learning process allows teachers to integrate text, graphics, animation, and other media into one package to provide comprehensive information for their students to achieve the desired learning goals.

Multimedia allows the demonstration of complicated processes to be interactive, animations made on teaching materials can be linked to other topics that are more naturally related (Crosby and Stelovsky, 1995: 147-162).Based on previous research it is stated that using multimedia modules can help students visualize abstract concepts but using multimedia modules in schools is still low (Lee and Kamisah, 2011). One multimedia application that can be used to create learning modules is the flipbook maker.

According to Sholeh in Zuriah (2016: 40), there are many teachers in the school who "stutter" and experience difficulties when asked to compile their own teaching materials and use materials made by others or factory-made in their learning activities.

Daryanto in Zuriah (2016: 40) states that teachers realize that the teaching materials they use are often not in accordance with the context and socio-cultural situation of students. So pedagogic competence of a teacher is required to be able to understand the characteristics or abilities possessed by students through various ways, one of which is by developing teaching materials.

This could happen because there are several possibilities: (1) low ability to master ICT to develop teaching materials; (2) the supervision carried out by the principal and by the school supervisor is still not optimal; (3) lack of training in the making of teaching materials/learning modules.

To help the teacher in dealing with the problems raised above in improving the teacher's ability to make learning modules is by conducting academic supervision. Academic supervision is a series of activities to help teachers develop their ability to manage the learning process to achieve learning goals (Glickman in Sudjana, 2012: 54).

One of the academic supervision activities to improve the ability of teachers to compile and develop teaching materials can be done through the provision of coaching (training / mentoring) to teachers who have problems or their abilities are still low (Sudjana, 2012: 108).

2 METHODS

The method of research in this study is quantitativedescriptive and literature review. Using quantitativedescriptive method is to provides a description of the productive teachers'initial ability to make learning modul using application flipbook maker. Literature review determines training design to make learning module using flipbook maker.

The subject of this study was the productive teachers of education and training at SMK Negeri 2 Binjaiof 10 teachers. The measurement of the teacher's initial ability using the instrument

questionnaire is the ability of teachers to make learning modules using flipbook maker application. The aspects assessed to measure the ability to make learning modules using flipbook maker applications are as follows: (1) Using module; (2) originality; (3) Teacher's interest in making modules; (4) Teachers' knowledge about learning modules; (5) Teachers' knowledge about flipbook maker application; and (6) Teacher coaching.

The design of the training is to use the GROW coaching model. This action research has the aim to complement or enhance the ability of participants to deal with the situation they experience (Greenwood & Levin, 2007). The Stringer model has a strong basic framework which is characterized by three words, namely: look, think and act.

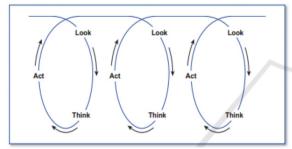


Figure 1:Action cycle of stringer model (Source: Yaumiand Damopolii, 2014:41)

3 RESULT AND DISCUSSION

Preliminary observations of productive teachers at SMK Negeri 2 Binjai show that in fact most of the teachers in the school when teaching still use a teacher-centered approach where the teacher teaches using the lecture method. According to Fitriana and Mulyani (2014: 88), this will certainly make students tend to get bored faster and as a result of students only have a lot of knowledge but are not trained to find knowledge and concepts. Based on the assessment of the initial observation questionnaire, that is, before the implementation of academic supervision of coaching techniques is carried out in improving the teacher's ability to make learning modules, it can be explained in the table below:

Table 11:The results of the initial questionnaire analysis making of the learning module.

NO	Respondent	Value	Explanation
		(%)	
1	Respondent 1	56.25	Very Low
2	Respondent 2	68.75	Low

3	Respondent3	62.50	Low
4	Respondent 4	56.25	Very Low
5	Respondent 5	62.50	Low
6	Respondent 6	62.50	Low
7	Respondent 7	75.00	Middle
8	Respondent 8	56.25	Very Low
9	Respondent 9	56.25	Very Low
10	Respondent 10	68.75	Low

From the table above it is found 4 (four) respondents obtained a score of 56.25; 2 (two) respondents obtained a score of 68.75; 3 (three) respondents obtained a score of 62.5 and 1 (one) respondent got a value of 75. Four respondents received a score that was categorized as very low; five respondents received a score that was categorized as low and 1 respondent obtained a grade that was categorized as the middle.

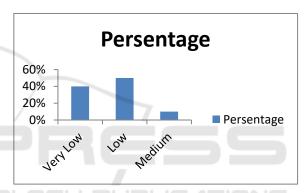


Figure 2: Percentage of initial ability.

This shows that the understanding and ability of respondents in making flipbook maker learning modules is still lacking. Therefore it can be concluded that for the respondents' ability to make learning modules using the flipbook maker application, all respondents need to be improved.

Efforts that can be made to improve the ability of teachers to make learning modules using the flipbook maker application is to carry out academic supervision. Academic supervision is considered important to improve teacher performance in the learning process so that it is expected to improve the quality of learning. As emphasized by Sergiovanni (1982) that the practical reflection of teacher performance in academic supervision is seeing the real conditions of teacher performance to answer questions related to the teacher's ability to manage the learning.

One technique that can be used in conducting academic supervision is the GROW coaching model. This is in line with Sergiovanni's statement (2007: 251) that coaching can help development in

learning.According to Whitmore in Passmore (2012), coaching can be the key to opening one's potential to maximize its performance.According to Thorne (2005) in coaching activity, the role of a coach is like asking questions for analytical purposes, using open questions to explore deeper information, can provide suggestions so that insight from coachee is more open, offering ideas and developing them together and providing feedback.

Razakstates that coaching can also help someone to understand themselves, their own potential and circumstances so that a coachee can find their own solutions to their problems. This is because coaching emphasizes one's own awareness to learn rather than teach

Meanwhile, according to Grant in Wilson (2011), coaching is a collaborative process that focuses on solutions, result orientation and systematic, where the coach facilitates the improvement of work performance, life experience, self-learning, and self-development. Matthews (2010) states that one of the keys to the success of a coaching program is the existence of self-awareness in coachee.

With this awareness, coachee is automatically motivated to make changes. Furthermore, according to Seger (2007), coaching if done properly can improve individual competencies which will lead to improved performance that is problematic or can even improve individual performance.

Adey (2004) suggests that more teacher coaching is carried out in the implementation of teacher professionalism programs. According to Fischler in Widodo (2011: 69), through participation in coaching, the teacher turns out to be more reflective so there is a desire to improve his teaching performance. In line with this, Loucks (2010) includes coaching as one of the important teacher professional improvement programs in addition to other methods, such as lesson study, action research, and monitoring.

Based on the above statements, coaching can be applied in academic supervision to improve teacher professionalism in the learning and teaching process, included in improving the ability of teachers in making learning modules using flipbook maker applications.

GROW as one of the models in coaching is very effective because the steps are very specific so that they are easily applied directly. (Team FMA, 2013: 27). According to Wilson (2011), GROW coaching model techniques are able to support intuitive power and coaching skills.

(Pramudianto, 2015) states that the GROW coaching model has the goal of solving problems or

goal setting. The role of a coach is to help coachee identify goals for the problems faced or the goals to be achieved from Coachee and focus on the solution of the problem.

In the implementation of coaching, coachee will be asked to share problems or obstacles experienced first, then the coach is expected to lead to setting goals. This initial stage requires that a coach be able to identify coachee problems properly so that the process of driving the destination can run according to what is desired.

Identification of good problems by supervisors will affect problem-solving abilities. This is in line with Stein and Book (2004), that understanding problems / formulating problems until problems can be identified properly is the first step that must be done in solving problems. D'Zurilla, Nezu, and Maydeu-Olivares (2004) state that one aspect of problem solving is being able to define problems/formulations.

When formulating a problem, a coach tries to explain and understand the problem by gathering as many specific and concrete facts about the problem as possible, identifying demands, obstacles and setting realistic problem-solving goals (for example, changing the situation to be better, accepting the situation and minimize emotional disturbances). A coach must have good questioning skills to gather specific facts and set realistic goals later.

GROW is an abbreviation of four steps or the process of coaching:

- 1. *Goal* is ability to be achieved by trained people. The goal must be intelligent, so that everyone can realize when the goal is achieved.
- 2. Reality is the starting point of the ability of people who are trained. This stage requires issues that are happening and also challenges that must be stated. Furthermore, an assessment is carried out to assess the extent of the achievement of people trained with the objectives to be achieved.
- 3. Obstacles/Options. The first thing is an obstacle that will slow down people who are trained to achieve goals andthis needs to be identified. Furthermore, these obstacles must be overcome with several choices as a solution to overcome these obstacles.
- 4. Way Forward. It takes the form of a step forward to ensure the commitment of the people who are trained to carry out and execute the chosen solution. Each step of the GROW model has a specific and measurable goal. It will help people who will be trained to be able to improve their abilities from the initial

conditions to the conditions to be achieved.By going through these processes and steps, there will be obstacles that arise as well as alternative solutions that have the potential to resolve the obstacles that arise. (Team FMA, 2013: 27).

The following will show the specific actions of each step of the GROW coaching model as follows:

- 1. The goal step, with the following actions: a) providing understanding so that the person who is coached agrees with the topic to be fostered; b) providing understanding so that the person being coached agrees with the specific objectives of the "Goal" step; c) establish long-term goals if possible.
- Step reality, with the following actions: a) inviting people who are coached to conduct self-assessments related to existing topics and situations; b) providing examples related to problems that function as feedback; c) examining the assumptions that appear to be validated; d) disposing of irrelevant assumptions.
- 3. Step obstacles, with the following actions: a) identifying obstacles that arise; b) clarifying back to the person who is coached whether the obstacles appear to be more than one; c) the trainer must consider and discuss various types of people, resources, environment, etc.
- 4. Steps of options, with the following actions: a) making sure that all alternative choices have been identified; b) inviting the person being coached to give input; c) offering also input to people who are nurtured carefully; d) making sure that the person being coached has determined alternative choices to overcome obstacles.
- 5. Way forward steps, with the following actions: a) making a commitment to implement alternative choices that have been chosen; b) re-evaluation of obstacles that might arise; c) planning the steps in detail along with the time period needed; d) providing understanding and agreeing on what kind of support will be given to people who are coached. (Team FME, 2013: 29).

4 CONCLUSION

Based on the above description, the following conclusions can be drawn:

- a. Academic supervision is very effective to improve teacher professional skills and improve the quality of learning. Academic supervision is able to create harmonious, democratic, constructive, and objective human relations that are carried out continuously.
- b. The GROW coaching model is very effective inacademic supervision. By implementing the GROW coaching model, a coachee has a strong motivation to learn or improve his abilities based on self-awareness and personal responsibility.

REFERENCES

- Adey, P., Hewitt, G., Hewitt, J. & Landau, N. 2004. The Professional Development of Teachers: Practice and Theory. Dordrecht: Kluwer Academic Publishers.
- Bank Dunia, 2011. Mentransformasi Tenaga Pendidikan Indonesia, Volume 1, Jakarta: Bank Dunia
- Crosby, M. E., &Stelovsky, J., 1995.From multimedia instruction to multimedia evaluation.*Journal of Educational Multimedia and Hypermedia*, 4: 147-162.
- D'Zurilla, T.J., Nezu, A.M., &Maydeu-Olivares, A., 2004.What is social problem solving? Meaning, models, and measures. In E.C. Chang, T.J. D'Zurilla& L. Sanna, (Eds.) Social Problem Solving: Theory, research, and training (pp. 11-27), Washington, DC: American Psychological Association.
- DirektoratTenagaKependidikan., 2008.Media PembelajarandanSumberBelajar.Jakarta: DirjenPeningkatanMutu PTK Depdiknas
- DirektoratTenagaKependidikan.,2008.*PenulisanModul*, Jakarta: DirjenPeningkatanMutu PTK Depdiknas

DirektoratTenagaKependidikan.,

2012.PedomanPelaksanaanPenilaianKinerja
Guru.Jakarta: DirjenPeningkatanMutu PTK
Depdiknas

- Fitriana, Itanur.,dkk., 2014.
 PeningkatanAktivitasdanHasilBelajarSiswaMelaluiMo
 delPembelajaranActivity BasedLearning
 BerbantuanFlash
 CardDilengkapiLKSPadaMateriIsomer
 danReaksiSenyawaHidrokarbonKelasXSMABatik1Sur
- akartaTahunPelajaran2012/2013. JurnalPendidikan Kimia (JPK),(online) Vol. 3 No. 2 Tahun 2014. Greenwood, D. J. & Levin, M., 2007. Introduction to
- action research: Social research for social change. California: SAGE Publications, Inc. Howe, E.M., 2009. Henry David Thoreau, Forest
- Howe, E.M., 2009. Henry David Thoreau, Forest Succession & The Nature of Science: A Method for Curriculum Development, *The American Biology Teacher* 71(7): 397-404
- Lee, T. T. &Kamisah, O., 2011. Effectiveness of interactive multimedia module with pedagogical agent

- (IMMPA) in the learning of Elechtrochemistry: *A preliminary investigation. Asia-Pasific Forum onScience Learning and Teaching*, **12(2)**: Article 9
- Loucks-Horsley, S., Stiles, K. E., Mundry, S., Love, N. &Hewson, P.W. 2010. Designing Professional Development for Teachers of Science and Mathematics. California: Corwin.
- Matthews, J., 2010. Can Line Managers Ever Be Effective Coaches?, Bussiness Leadership ReviewVII:II. 1-10
- Passmore, J., 2010. Exellence in Coaching: PanduanLengkapMenjadi CoachProfesional, Jakarta. PPM.
- Pramudianto. 2015. I'am A Coach, StrategiMengembangkanPotensiDiriDenganCoaching. Yogyakarta.Andi Offset.
- Razak, Abdul. -. Coaching dan Mentoring DalamPendidikan, InstitutAminuddinBaki. Bandar Enstek.
- Rosenberg, M. J., 2001. E-learning: Strategies for delivering knowledge in the digital age. New York: McGraw-Hill
- SeameoInnotech., 2010. The Southeast Asian Teaching Competency Standars Framework, Philippine. SeameoInnotech.
- Seger., 2007. Membudayakan CoachingdiTempatKerja. Diunduh 11 O k t o b e r 2 0 1 7 , h t t p : / /www.bppk.depkeu.go.id/webpegawai/a t ta c h m e n ts / 5 9 3 _ ME MBUDAYAKAN % 20 COACHING % 20 DI % 20T E M P A T % 20 KERJA % 20%20ARTIKEL%20SEGER.pdf.
- Sergiovanni, T.J., 1982. Supervision of Teaching. Alexandria, Association For Supervision And Curriculum Development
- Sergiovanni, Thomas J., 2007. Supervision: A Redefinition. New York: The McGraw Hill Companies
- Stein, S. J., & Book, H. E., 2004.Ledakan EQ: 15 prinsipdasarkecerdasanemosionalmeraihsukses. Bandung.Kaifa
- Sudjana, H. Nana., 2012. SupervisiPendidikanKonsepdanAplikasinyaBagiPenga wasSekolah.Bekasi: Binamitra
- SunartinidanTriana.,2016.HubunganAntaraKompetensiPe dagogik Dan Kinerja Guru Di KecamatanGirimulyoKabupatenKulonProgo, Humanika16(1): 22-31
- Team FME., 2013. Principles Of Coaching. Coaching Skills.www.free-management-ebooks.comTanggalakses 13 Februari 2017.
- Thorne, K., 2005.Coaching for change: Peranpelatihdalamperubahanmanusiadanorganisasi. (Fiyanti Osman, Penerjemah). Jakarta : PT. BhuanaIlmuPopuler
- Widodo, Ari.,Riandi, Supriyatno.B, 2011.PengembanganPaket Program Coaching Berbasis Video UntukMeningkatkanKompetensiMengajar Guru Sains, CakrawalaPendidikan, Februari 2011, Th. XXX, No. 1

- Wilson, C., 2011. Performance Coaching: MetodeBaruMendongkrakKinerjaKaryawan, Jakarta. PPM.
- Yamauchi, G.L.,2008. Effects of Multimedia Instructional Material on Students' Learning and Their Perceiptions of The I, nstruction, Tesis Iowa State University
- Youmi, Muhammad. &Damopolii, Muljono. 2014. Action Research. Teori, Model, danAplikasi. EdisiPertama. Jakarta: KencanaPrenadamedia.
- Zuriah, Nurul.,Sunaryo, H., Yusuf, N., 2016. IbM Guru Dalam Pengembangan BahanAjar Kreatif InovatifBerbasisPotensiLokal, Jurnal Dedikasi, 13