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To cite this article: Zusje W M Warouw *et al* 2019 *J. Phys.: Conf. Ser.* **1317** 012209

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Facilitation of democratic learning activities through mentoring

Zusje W M Warouw^{1*}, Chris Medellu³, Tinneke Makahinda³, Vivian P J Runtu²

¹Department of Biology, Faculty of Mathematics and Natural Sciences, Manado State of University, Indonesia

²Department of Mathematics, Faculty of Mathematics and Natural Sciences, Manado State of University, Indonesia

³Department of Physics, Faculty of Mathematics and Natural Sciences, Manado State of University, Indonesia

*zusje_warouw@yahoo.co.id

Abstract: Learning is basically the democratic process but unfortunately the study lacks the students' diversity, so the academic atmosphere, the students' body and collage progress are not optimal. The study patterns are still teacher centered unsustainable and lacking initiative. The learning material only emphasizes the concept that comes from the teaching book. Not optimizing the study program, it can also be reflected by the performance of alumni in the field. The performance of learning by the teacher (alumni) is not variable, generally in directional instruction manual. Teacher lacks experience and lack the ability to develop themselves in designing learning materials to utilize the environment around and learning from students' activities. This study is directed to improve the academic climate to agreement that ultimately will contribute to independence and student learning initiative. The manner of learning is to apply the mentoring system conduct. The performance mechanism (group) USES the approach of the assessment and reflections. The results of the researcher: the performance of the play shows a significant difference between indicators. Indicators that shows the highest mentoring performance is indicator-1: building two-way communication with students. The construction of two-way communication between mentors with a group of students is easy to do by mentors, instead of other indicators like indikaor-4: conditioning the initiative to learn the initiative's lesson with the relevant material. The difficulty of mentors in an indicator-4 achievement is to identify and design quickly the choice of relevant materials and according to the development of student groups. There were training and early preparation before the performance of the activity, but in the democratic process of learning the potential of problems, issues and new experiences with groups of students. Material is relevant to the problems that arise in learning process are not predictable. The performance of the performance for indicaor-6 was also low, but indicated the significant progress of the initial meeting to the end. Conclusion: the role of the mentors is very important in building communication and interaction with study in groups as well as the traffic of study groups and increasing the study of study and quality of the students' work.



1. Introduction

The purpose of education is a set of forgoes is a set of targets where the education is directed. The shape of the purpose of education can be knowledge, skill, value and attitude [1]. Further, it is said that purpose of education is normative. The national statute of number 20 in 2003 refers to national educational education trying to develop the ability and to establish a dignified human character and civilization in order to enrich people's, and the aim of growing the potential to become human beings of faith and commitment to the God who is great, moral, healthy, vibrant, competent, creative, independent, and becoming a democratic and responsible citizen. The same is stated in UU RI number 14 in 2005 act of the law of teacher in chapter 6 of the act of teacher and lecture as a professional governess aimed at carrying out the national education system and achieving the objectives of national education, as mentioned above [2]. So to realize the hope in developing the potential of learners is work of teachers and lectures. Where learners are the subjects or charms that have autonomy, who want to develop themselves constantly in order to solve the life's problems that have been found throughout his life. With the unique benefit of educating educators, how to develop the potential capabilities of learners' skills as: (1) individuals who have a unique physical and psychic potential, are unique man, (2) developing individuals, (3) individuals who need individual guidance and human treatment, (4) individuals who have the ability to be self-reliant.

In regard to the thing that has been brought to the top of collage and the schools in Indonesia are more specialized in FMIPA UNIMA, as soon it comes to the learning of democracy through the role of a role. So that in learning keep recognizing a diversity with guidance to self-reliance. This could be done by the study of the democratic climate. In addition to the administration of the national education system above, one of the key issues in the legislation is the development of society in the development of society in the development of the education sector. As stated in chapter 9 that society entitled to participate in planning, implementation, oversight and evaluation of education programs. And this chapter is a continuation of the chapter 4 verse 1 that education in Indonesia is held democratically and at justice. The democratization of education is the implications of and is in accordance with policy to promote the management of education other than school in college.

But unfortunately the study lacks students' diversity, so the academic atmosphere, student conditions and college processes are not optimal. The study patterns are still teachers centered; not self-reliant and lacking initiative. The learning material only emphasizes the concept that comes from the teaching book. Not to optimize the study program, it can also be reflected by the performance of the alumni (teacher) in the field. The performance of learning by the teacher (alumni) is not variable, generally direct instruction.

The IPA-UNIMA education program has a mission (1) holding education to produce science teachers and researcher that meet pedagogic, personality, social, and professional competence, (2) developing science education through research and innovation, (3) popularize the results of research and innovation in science education, (4) to build mutually beneficial cooperation with others inside and out of the country to support the rate of development of natural science. The science mission of UNIMA is born and formulated from the challenges and needs of his scientific and mathematical learning and is social implications, in north Sulawesi.

To refer to the things that have come to light, the accomplishment of the mission through education. But in the world of higher education according to the Asian week's magazine from 77 universities on Asia Pacific, it returned out that four of the best Universities in Indonesia were only able to number 61, to 68, to 73 and to 75. Other indicators indicate how low the quality of education in Indonesia can be viewed from UNESCO's data in 2000 about the number of HDI (human development index), that is the composition of the rank of educational achievement, health and income per head that indicates that the Indonesia's development index took the 102 in 1996, the 99 year 1997, to the 105 in 1998. And 109 in 1999, and went down to the 112 in 2000. Next on the per survey (political and economic risk consultant), the quality of education in Indonesia is in the 12 from 12 countries in Asia [3].

In the current knowledge with advances in science and technology, then the learning which is a highly developed democratic process is developed. Because with a democratic learning process, it will encourage self-reliant and a learner's learning initiative. It will have a positive effect on students by strengthening the attitudes and behavior of democratic interaction. The strengthening of attitudes and behavior of democracy takes place through individual interactions. Democratic interaction among other points is shown by (1) the idea of the individual in context that is being discussed together, (2) arguing about the ideas and ideas of others, (3) criticize and criticism, (4) values differences (5) tolerant and (6) trying too [4].

Three aspects of the democratization of education services as presented by Rosyada [3], the democratization in the arrangement, development and implementation. It is explained that democracy in the learning process since the study of learning programs, until implementation of the learning process in class by paying attention to student aspirations, do not neglect those who are slow in the process of understanding, and do not harm those who are quick in understanding the material. So the principle of all has a proportional service, service, and it all has to end with a minimum of the achievement of the competence that is established together in the corridor learning. The indicators of the democratic behavior that are developed through thematic learning as to the art of the Medellu et al. [5] is: 1) asking questions relevant to the material and procedures, (2) initiatives to develop alternative of relevant activities, (3) proposed the needs for facilitation service by a team of researchers and teacher, (4) ask the problems raised during the learning process, (5) initiative to do the assignment autonomously with the material consistent to thematic assignment. Next, the democratic interaction of the learning process can be developed between groups of students who have varied learning experiences, so democratic interaction other than development of democratic attitudes, also the practice of transforming knowledge, skill and values. The efficacy of democratic learning lies on the nature needs to study individuals in the face of the facts, and access to information, the use of technology. Individuals needs and background vary widely and need to be given a large and democratic space for the development of each individual through the learning process. The writing describes the result of a study of democratic attitudes and behavior that developed through the performing system. Mentors (students) serve as the source of the facilitator who communicates his studies to a group of students who are located.

The role of is a relationship between a senior and a more junior member in an organization with seniors directing and supporting junior members toward progress. The mentoring program has an important role in improving the performance and builds an attitude toward the organization on new employees [6]. Levinson [6] suggesting that mentoring is one of the most important relationship in the beginning of a person's career and professional development throughout their career. Mentoring is a tool that the organization USES to nurture and improve its employees, it can be practical practice and formal programs [7]. Wong and Premkumar define mentoring is the learning process about the aspect of personal, the lead behind build focusing on the achievements as well as support emotional that is a key [8]. In a relationship in role of, protégé learn through a conversation with a mentor who are more experienced to share knowledge and skills than to practice. The role of require communication informal, usually face-to-face during a period of time sustainable between people are considered to have knowledge relevant, wisdom, and experience (mentors) with people are considered to have to have a little more knowledge (protege) [9]. Mentoring focused to protégé oriented to her career useful good long-term or short-term [10]. Kreitner and Kinicki [11] define mentoring as the process of form and maintain the relationship is thriving and lasts intensively between employees senior (mentors) and employees junior. Mentoring is a part of the development of the culture achievements work important because the three reasons: (1) mentoring donate the formation of a sense of unity to increase acceptance of the value of the organization, (2) aspects of socialization mentoring also improve the membership. Mentoring can improve the relationship between personal among the members of organization.

According to Messmer (1988) [12] one way to establish a culture of organization is through the mentoring given to the new, the program mentoring is part of the process of socialization. The

information was delivered in a relationship mentoring include the purpose of the organization and values as well as the information about the hope of company [13]. All the effects of mentoring positive impact on the success of his career protégé and should be concern for protégé its own [14].

The result of the research showing the opportunity to improve the ability to think and initiative to learn of students in FMIPA through the task of courses that mentoring the students senior and the team lecturer. A strategy system development the mentor students’ participants collage by the students’ level of the (help function by a team of lecturer courses) has an advantage double. Students participant’s college get partners learn (students’ mentors) are more likely to communicate, so guarantee n increase in the climate academic, productivity and efficiency time complete the task [5,15,16,17]. Students who servers’ as a mentors gained a chance to validate knowledge, increase mastery the concept of, the context relationship with the concept of, as well as the experience in guide students [5,15,16] or students in the lower level. In line with this [18] argued that the components of the service (the task) is interpreted as a replacement for the academic but more as the strengthening of learning, with to face the context of the rea world to students who can connected with the content academic. The fact diversity activity, independence and initiative learn individuals in the group can be overcome with increasing the role of mentoring by a group of students senior to junior executive. The role of is a one of the process intellectual psychological and the development of affection through a meeting in a certain period Galbraith, Maslin-Ostrowki [19]. In the process of mentoring, mentors got the confidence of individual mentored to experience growth intellectual. [20,21,22] result of research suggest that the process of mentoring instrumental important in improving the progress of learning students, and the atmosphere of the academic in school. The pattern of learning interactive between mentors with guidance relate positive with their study [23], the confidence and motivation early [24]. The implementation of the task of students mentoring in the level of lower level of the by the students is training to maturation competence and career experience-especially as prospective teachers. Based on this conducted the study how the facilitate activities learn democratic through the role of, or how the role of mentors as facilitator for learning democratic for a group of students. The purpose of the research is: to describe the activities learn democratic (change in attitude democratic) through mentoring a group of students in doing coursework.

2. Research Method

The method used in this research is descriptive statistical methods and presentation, rubric. The benchmark used to determine the criteria for the grouping of values in each variable by using the reference as follows. The percentage is interpreted with the phrase qualitative, is good (76%-100%), enough 56%-75%), less good (40%-55%), not good ($\leq 40\%$). As the rubric: Low (0-3’9), enough (4,0-5,5), moderate (5,6), High (7,5-10).

3. Result and Discussion

3.1. The result of the evaluation of the mentoring process based on indicators of the facilitation of learning activities democratic

Table 1.1. the role of the mentor-1 (group-1)

Indicator	the intensity of activities mentoring (score 0-10)									
	1	2	3	4	5	6	7	8	9	10
Building two-way communication with students	7	7	8	8	8	9	9	9	9	9
Motivate and condition the interaction of individuals in groups and between groups	5	6	6	6	7	7	7	7	8	8
Facilitate students by giving referrals to complete their own (individual and group) problem or task is done	5	5	5	5	6	6	6	6	7	7
Give the task a relevant development to	4	4	5	5	6	6	6	6	6	6

encourage independence in the learning group.										
Give the task a relevant development to encourage independence in the learning group.	4	4	4	5	5	5	6	6	6	7
Condition the development of initiative learning groups with material that relevant.	5	5	6	6	6	7	7	8	8	8

3.2. The results of the analysis of development of the activity of mentoring on the group-1, indicator:

- Establish two-way communication with students
- (4) Give the task a relevant development to encourage independence in the learning group
- (6) Evaluation and feedback as well as encouraging individuals and groups and repair task.

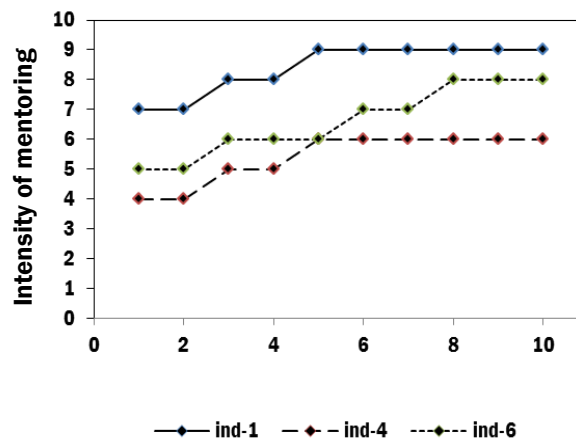


Figure 1. The progress of the function of a mentor

Table 1.1. show the development functional of mentoring over the past ten meetings. The role of the mentor is presented in picture 1 is the role of the mentor in the group-1. The third indicator shows the scores increased from the first meeting until the last meeting. Patterns of change in these indicators, the same for all indicators of the intensity of mentoring and occurs in the fourth group of students. The result of interviews the research team with the mentor concluded that the increase in the performance of the mentoring caused by the monitoring and direction of a team of researchers on each execution of the function of mentoring, as well as the experience progressed from the initial meeting to the final meeting. Performance mentoring show significant difference between the indicators. Indicators most of which show the performance of mentoring high is an indicator-1. Build two-way communication with students. Activities establish two-way communication between mentor with a group of students is relatively easy to do by the mentors, compare to other indicators such as indicator-4: condition the development of initiative learning groups with relevant material. The difficult of the mentor in the achievement of indicator-4 is to identify and design a quickly the choice a material the task relevant and in accordance with the development of groups of students. Even if there is training and preparation before the implementation of the activities, but in the process of learning the democratic potential emergence of problems, issue and a new experience in students' groups. Material relevant to the problems that arise in the process of learning cannot be predicted. Performance

mentoring for indicators-6 are also still low, but showed significant progress from the initial meeting until the end.

3.3. The result of the evaluation of the mentoring progress based on indicators of the facilitation of learning activities democratic.

Table 1.2. The role of the mentor-2 (group-2)

Indicator	the intensity of activities mentoring (score 0-10)									
	1	2	3	4	5	6	7	8	9	10
Building two-way communication with students	7	7	7	7	8	8	8	9	9	9
Motivate and condition the interaction of individuals in groups and between groups	5	7	7	7	8	8	8	8	8	8
Facilitate students by giving referrals to complete their own (individual and group) problem or task is done	5	5	5	6	6	6	6	7	7	7
Give the task a relevant development to encourage independence in the learning group.	5	5	5	6	6	6	6	7	7	7
Give the task a relevant development to encourage independence in the learning group.	4	5	5	5	6	6	6	7	7	7
Condition the development of initiative learning groups with material that relevant.	6	6	6	7	7	7	8	8	9	9

The result of the reactors' development analysis of the league, indicators: top of the first, indicator 2 to 6 categories. To be visible to image 2.

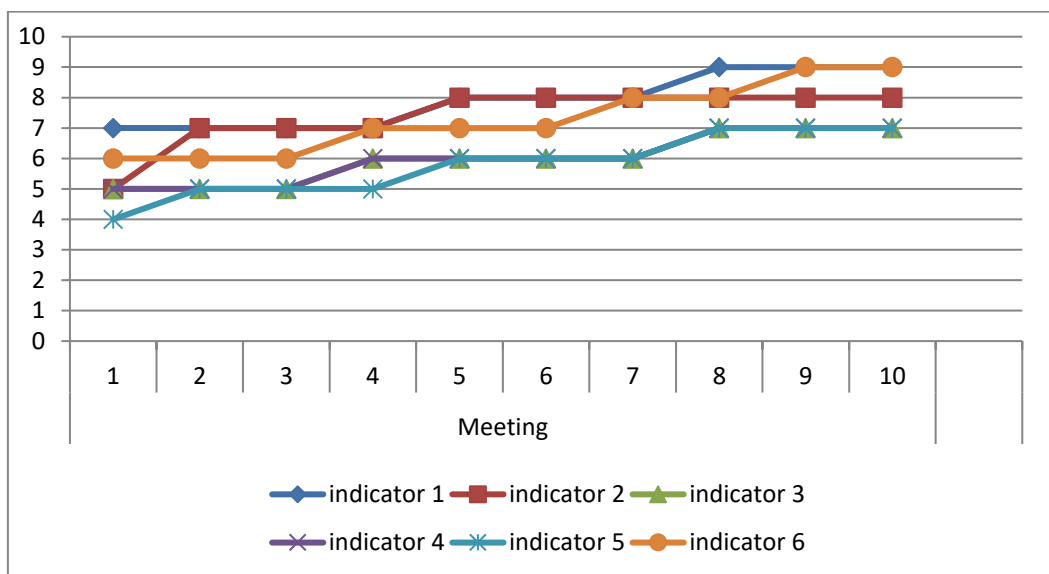


Figure 2. The progress of the function of a mentor

The role of mentor is presented in figure 3 is the role of the mentor in group-3. The sixth indicator shows the scores increased from the first meeting until the last meeting. Performance mentoring shows significant differences between the indicators that show the performance of mentoring high is an indicator-1: building two-way communication with students. Activities establish two-way

communication between mentor with s group of students is relatively easy to do by the mentor, comper to other indicators such as indicators-4: condition the development of initiative learning groups with relevant material increased in the medium category, although there is still difficult to mentor the indecision of an indicator-4, identifying and designing a quick and quick choice of relevant materials and according to development of a group of students. While there are always training and preparation prior to the performance of the activity, but in the democratic process of learning the potential of problems, issue and new experience with groups of students. Material is relevant to the problems that arise in the learning process are un predictable. The performance of a series for indicator-2,3,4,5,6 is still a medium category, but it suggesting a significant process from a preliminary meeting to end.

3.4. *The result of the evaluation of the mentoring process based on indicators of the facilitation of learning activities democratic.*

Table 1.3 the role of the mentor-3 (group-3)

Indicator	the intensity of activities mentoring (score 0-10)									
	1	2	3	4	5	6	7	8	9	10
Building two-way communication with students	7	7	7	7	7	8	8	8	9	9
Motivate and condition the interaction of individuals in groups and between groups	5	5	6	6	6	6	7	7	8	8
Facilitate students by giving referrals to complete their own (individual and group) problem or task is done	5	5	5	5	5	5	6	6	7	7
Give the task a relevant development to encourage independence in the learning group.	4	4	4	4	6	6	6	6	6	6
Give the task a relevant development to encourage independence in the learning group.	4	4	4	4	4	5	6	6	7	7
Condition the development of initiative learning groups with material that relevant.	5	5	5	6	6	7	7	7	8	8

The result of the analysis of the development of the activity of mentoring one the group-3 indicators: first, indicators 2,3,6 category. As for the indicators of 4,5 category enough. For details can be seen figure 3.

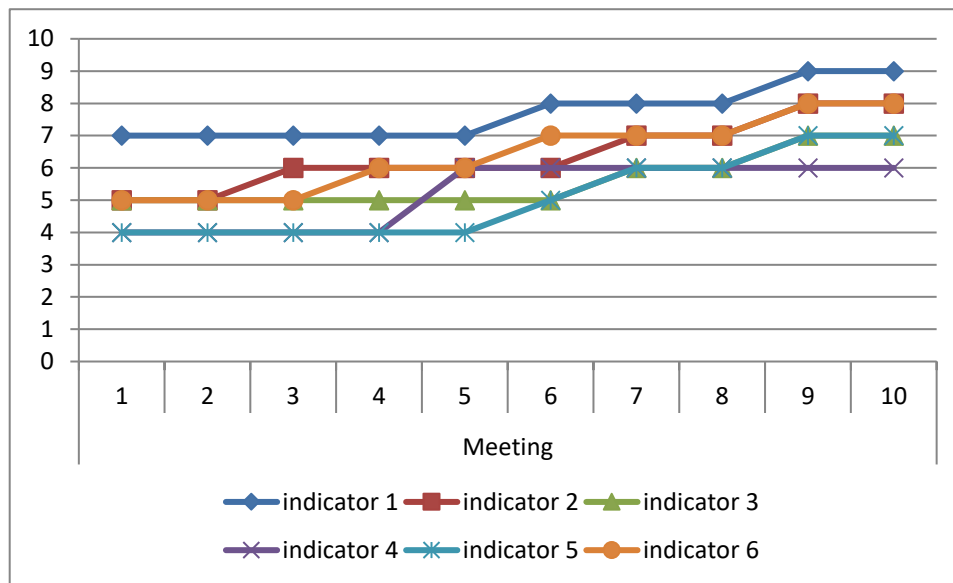


Figure 3. The progress of the function of a mentor 3

The role of mentor is presented in figure 3 is the role of the mentor in group-3. The sixth indicator shows the scores increased from the first meeting until the last meeting. Performance mentoring shows significant differences between the indicators that show the performance of mentoring high is an indicator-1: building two-way communication with students. Activities establish two-way communication between mentor with s group of students is relatively easy to do by the mentor, compare to other indicators such as indicators-4: give the task a relevant development to encourage independence in the learning group. Also indicators 5, that is condition the development of initiative learning group with relevant material, but has increased although there is still the difficulty of the mentor in the achievement of the indicators-4; is it to identify and design a quickly the choice of material the task relevant and in accordance with the development of groups students. Although there is always the training and preparation before the implementation of the activities, but in the process of learning the democratic potential emergence of problems, issues and new experiences on a group of students. Material relevant to the problems that arise in the process of learning cannot be predicate. Performance mentoring for the indicators 2, 3, 6 still the medium category, but show significant progress from the initial meeting until the end.

3.5. *The result of the evaluation of the mentoring process based on indicators of the facilitation of learning activities democratic.*

Table 1.4 the role of the mentor-4 (group-4)

Indicator	the intensity of activities mentoring (score 0-10)										
	1	2	3	4	5	6	7	8	9	10	
Building two-way communication with students	7	7	7	8	8	8	8	9	9	9	
Motivate and condition the interaction of individuals in groups and between groups	5	6	6	6	7	7	7	7	7	8	
Facilitate students by giving referrals to complete their own (individual and group) problem or task is done	5	5	5	5	6	6	6	7	7	7	
Give the task a relevant development to	4	4	5	5	6	6	6	6	6	6	

encourage independence in the learning group.

Give the task a relevant development to encourage independence in the learning group.

Condition the development of initiative learning groups with material that relevant.

4	4	5	5	5	5	6	6	6	7
5	5	6	6	6	7	7	8	8	8

The result of the analysis of the development of the activity of mentoring one the group-3 indicators: first, indicators 2,3,6 category. As for the indicators of 4,5 category enough. For details can be seen figure 4.

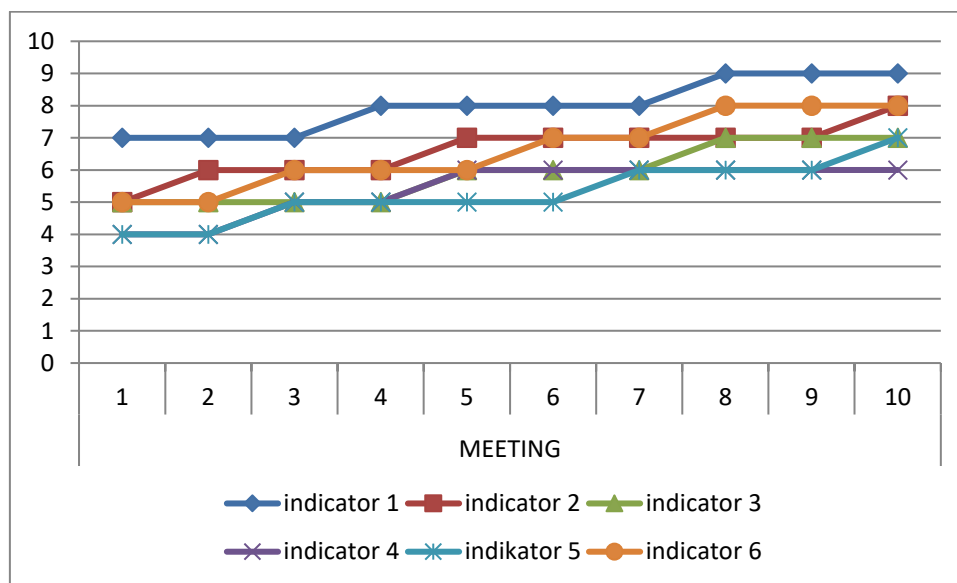


Figure 4. The progress of the function of a mentor 3

The role of the mentor is presented in figure 4 is the role of in mentor the group 4 is the role of the mentor in group-4. The sixth indicator shows the scores increased from the first until the last meeting. Performance mentoring show significant difference between the indicators. Indicators that shows the performance of mentoring high is an indicator-1 building two-way communication with students. Activities establish two-way communication between mentor and he group of students is relatively easy to do by the mentors, compared to other indicators such us indicator-4: give the task a relevant development to encourage independence in the learning group. Also indicators 5, that is: condition the development of initiative learning group with relevant material, however, experience in increase, although there is still the difficulty of the mentor in the achievement of indicator-4 is to identify and design a quickly the choice of material the task relevant and in accordance with the development of groups of students. Performance mentoring for the indicator- 2,3,6, also still the medium category, but showed significant progress from the initial meeting until the end.

4. Conclusion

- 1) The facilitation of the learning activities of the democratic (attitude change, democratic behavior) through mentoring groups of students in working on their assignment showed improvement from the initial meeting until the end.

- 2) Performance mentoring show significant differences between the indicators. Indicators show the performance of mentoring high is an indicator-1: building two-way communication with students.
- 3) The attitude and behavior of learning develop through the system of mentoring. Mentors (students) play a role as a source of facilitators who communicate the learning experience to a group of students that mentoring.

Suggestion

- 1) For the program of the study as early as possible carry out the learning activity democratic in the training initiative of self-learning and changes in attitudes and democratic behavior in the completion of assignment.
- 2) Empower mentor (students), a senior role as a source of facilitators who communicate the learning experience to a group of students' juniors mentoring.

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