



## DEVELOPING A MODEL OF LEARNING MANAGEMENT OF THE SEMESTER CREDIT SYSTEM IN MAGELANG MILITARY ACADEMY

I Gusti Agung Ketut Yoga<sup>1✉</sup>, Maman Rachman<sup>2</sup>, Masrukhi<sup>2</sup>, Wahyu Hardyanto<sup>2</sup>

<sup>1</sup> Magelang Military Academy, Indonesia

<sup>2</sup>Postgraduate Program, Semarang State University, Indonesia

### Article Info

#### Article History:

Accepted April 2016

Approved May 2016

Published June 2016

#### Keywords:

*developing; learning; credit system.*

### Abstract

Military Academy has just changed its learning management from the lesson hours system to a semester credit system and is searching for a suitable model. This study is intended to analyze the existing learning management, to develop a suitable model based on the semester credit system, and to measure its applicability. This study adopts a research and development design. The data are collected from informants, events and documents by using interviews, observation and documents, and analyzed by reduction, display and drawing conclusion. The results of the study show that the learning management based on the semester credit system in Military Academy is currently implemented by using three basic patterns, by maintaining the ranks and levels of the cadets, by providing Study Plan Cards and Study Results Cards, by using effective information technology, academic supervision and academic guidelines. The applicability tests show that the developed learning management model is effectively implemented. There are some weaknesses of the developed learning management so improvement on administration and information technology should be made. It is suggested that stakeholders should make some adjustment, provide an acceleration program for the cadets with GPA of more than 3.5 and adapt the curriculum with recent development.

© 2016 Semarang State University

✉ Correspondence Address :  
E-mail: [agungyoga206@yahoo.com](mailto:agungyoga206@yahoo.com)

p-ISSN 2085-4943  
e-ISSN 2502-4469

## INTRODUCTION

The adoption of the semester credit system (SCS) to replace the lesson hour system (LHS) as recently implemented in Military Academy should be given a special attention to avoid some effects as mentioned by Nwadiani & Ofoegbu (2012) that the students' achievement in Nigeria University declined when the system was changed. So far the semester credit system in Military Academy has been implemented on its own and no studies have been conducted. The atmosphere of the lesson hour system is still very strong, with the use of ranks and levels among cadets. Additionally, the administration of the semester credit system such as Study Plan Cards (SPC), Study Results Cards (SRC), and academic guidelines are not yet implemented. This indicates the big gap between what is stipulated in the guideline of the credit system (Dirjen Dikti, 1983) and their implementation in the field. The study on the Revolution of Military Education in Brazil by Kosta (2014) shows that the military education needs to be revolutionized to follow the technological and cultural development within the civil society. The study by Tagarev (1997) in his dissertation "The role of military education to maintain the harmony between civil and military communities, a case study in Bulgaria" shows that the effective solution for the problem is the establishment of integrated educational institutions in which civilians and military members can learn together. Similarly, the academic programs in the US Military Academy (USMA, 2016) suggest that the goal of the US Military Academy is to develop leaders who have good characters, who comprehensively understand their intellectual responsibility and officers' ethics, who are widely-open minded, who have professional, moral/ethical competence, who are physically strong, and who have strong and sustainable commitment both as Army officers and American citizens. Furthermore, Corum (2012) conducted a study on multinational military education in Baltik Defence College of Tartu, Estonia, a unique institution operated by three different countries:

Latvia, Estonia and Lithuania. In the study by Bahadori, et al. (2011:1058) on the measurement of the quality of educational services in Iran, they point out that to minimize the gap of the service quality, the higher institutions should emphasize emphatic dimension.

This study is intended to describe and analyze the existing learning management in Military Academy, to develop a suitable model of learning management based on the semester credit system for Military Academy, and to measure the applicability of the model of learning management based on the semester credit system in Military Academy.

## METHODS

This study adopts a research and development design. The data are collected from informants, events and documents by using interviews, observation and documents, validated by using a triangulation of instruments and sources, and analyzed interactively by reduction, display and drawing conclusion. Borg and Gall (2003:772) point out that there are ten steps of research and development, including information gathering, planning, developing a pre-planned product, preliminary try-out, product revision based on the try-out, product testing, product revision based on the product testing, operational testing, product revision based on the operational testing, and dissemination. The ten steps are simplified into three steps, preliminary stage, development stage and validation stage.

## RESULTS AND DISCUSSION

### Factual Model

Magelang Military Academy adopts three basic patterns, that is academic, personality, and physical condition, both for its educational process and its evaluation of learning achievement. The education in Military Academy takes four years and consists of four levels/ranks: 1) Level I Cadet/Corporal Cadet, 2) Level II Cadet/Sergeant Cadet, 3) Level III Cadet/Major Sergeant Two Cadet and Level IV

Cadet/Major Sergeant One Cadet. In the first year the cadets join an integrated education offered by Command Headquarter of Indonesian National Army Academy, then in the second, third and fourth year they attend the education program in Military Academy. The teaching learning activities based on the semester credit system is implemented by setting up the weight of credit units for each subject in the curriculum. Military Academy in currently implementing two types of curriculum. In the first year, the curriculum is based on the Decree of Command-in-chief of Indonesian National Army No. Kep/516/VIII/2012 with the total of 26 semester credit units (SCU) for the integrated education. In the following three years, the curriculum is based on the Regulation of Army Chief of Staff No.10a, 11a, 12a, 13a and 14a, dated 16 January 2015 on the change of curriculum for Military Academy with the total 130 SCUs. Therefore, there are a total of 156 SCUs offered from semester I to semester VIII with 108 subjects (Akmil, 2013). The semester credit unit (SCUs) is used to measure the study load for the students, to recognize of the students' successful work, to recognize the cumulative work of the program and the extent of the work to realize the educational programs

by higher educational institutions and especially by the lecturers. However, cadets are not yet allowed to complete their study more quickly than others even though their GPA is over 3.5. The administration for the semester credit system, such as academic guideline books, academic supervisors, Study Plan Cards and Study Results Cards are not yet well implemented. The final score of the subject is not based on the cadets' assignment, but based only on the mid semester test (50 %) and the final semester test (50 %). Additionally, the teaching and learning process based on the semester credit system in Military Academy is not yet supported with the effective use of information technology.

The data on the following table illustrate the enrollment and graduation of cadets in Military Academy for the last five years.

The data in Table 1 show that some cadets cannot complete their study exactly for four years because they are dismissed, downgraded, or remain in the same level or rank. No cadets can complete their study less than four years even though their GPA is more than 3.5. Table 2 presents the cadets' GPA in Military Academy.

**Table 1.** Data on the enrollment and graduation of cadets in Military Academy for the last five years

| Year of Entry | Year of Graduation | Enrolled | Graduated | Dismissed | Ranks Down Graded | Remain Grade | Note      |
|---------------|--------------------|----------|-----------|-----------|-------------------|--------------|-----------|
| 2007          | 2011               | 307      | 294       | 6         | 3                 | 3            |           |
| 2008          | 2012               | 298      | 298       | 3         | 3                 | 1            | 1<br>Died |
| 2009          | 2013               | 249      | 238       | 3         | 3                 | 2            |           |
| 2010          | 2014               | 252      | 241       | 4         | 5                 | 5            |           |
| 2011          | 2015               | 224      | 211       | 3         | 2                 | 8            |           |

**Table 2.** Data on the cadets' CGPA in Military Academy for the last five years

| Cadets Graduated In | CGPA    |         |         |         | Total |
|---------------------|---------|---------|---------|---------|-------|
|                     | 2.0-2.5 | 2.6-3.0 | 3.1-3.5 | 3.6-4.0 |       |
| 2011                | 4       | 135     | 156     | -       | 295   |
| 2012                | -       | 96      | 206     | -       | 302   |
| 2013                | -       | 23      | 216     | -       | 239   |
| 2014                | -       | 72      | 172     | 4       | 248   |
| 2015                | -       | 61      | 152     | 1       | 214   |

The existing learning management based on the semester credit system has some weaknesses so it is necessary to develop a suitable management model that can be applied in Military Academy. Some of the weaknesses include the fact that Study Plan Cards and Study Result Cards are not yet administered well, that information technology is ineffectively used, no academic supervision from lecturers is given and no academic guidelines on the semester credit system is provided. Poor administration of the learning management based on the semester credit system causes the fact that authentic evidence cannot be shown for grade administration.

### **Hypothetical Model**

The factual learning management model based on the semester credit system in Military Academy has some weaknesses in its implementation. Therefore, it is necessary to develop a learning model based on the semester credit system in Military Academy. The learning management is developed with the following components.

### **Filling out Study Plan Card (SPC)**

Previously the cadets automatically took the subjects as a package from the curriculum. Now the cadets fill out Study Plan Card (SPC) to plan their study. The implementation of SPC is based on Guidelines by Directorate of Higher Education page 18, number 2.1.3 that one of the required administration for the semester credit system is Study Plan Card (SPC). The card is not only for enrolment but also for administering the teaching and learning process. It also indicates good planning for the students related with the materials they are studying.

### **Distribution of Study Result Card (SRC)**

Cadets previously received their academic transcript at the end of the four year period of their education. Now, Study Result Card (SRC) is distributed to them. Guidelines on the implementation of credit system by Directorate of Higher Education states on page 18, number

2.1.3 that one of the required administration of the credit system is the use of Study Result Card (SRC). This card demonstrates the grade transparency and the cadets can check their grade, can calculable their GPA, their competence and their achievement ranks. Study Result Card (SRC) is an authentic evidence, similar to student reports for Primary School, Junior High School and Senior High School. If there is any mistake in the educational administration, the cadets can file their complaints by showing their Study Result Card.

### **Scores for Assignments**

Previously the scores for assignment was not included in the final grade of the subject. One of the principles of the semester credit system is that lecturers are required to conduct face to face lecture, and to give both structured and independent assignments. Originally the final grade of the subject consisted of 50% from the score of the mid semester test and 50% from that of the final semester test (Akmil, 2013). This score distribution is developed into: 20% from assignment, 30% from the mid semester test and 50% from the final semester test. This is based on some considerations: 1) Guidelines for the implementation of the credit system by Directorate of Higher Education, page 4, number 1 states that one SCU consists of 50 minutes of face to face lecture, 60 minute structured assignment and 60 minute independent assignment. 2) If the lecturer does not have a direct role on determining the final grade of the cadets, the cadets will not show high respect to the lecturer. It is even possible that the cadets show apathetical attitude toward the lecturer, for example the cadet might sleep during the class hour or does not pay attention to the lecturer. This eventually can have a negative effect to the quality of the students.

### **Effective Use of Information Management**

All cadets are provided with laptops, but they have not used them effectively to support the implementation of teaching and learning process in the semester credit system. So, the

academic services by using more effective information technology are developed with the following reasons. The presence of computer technology is not fully and positively accepted by every individual. The users do not always obtain the benefits of the computer (Thompson et al, 1991). Technology is not automatically used to fulfill the needs of the users because when it is used in data processing, the computer does not always facilitate the users. On the contrary, the computer technology can cause some problems to the users. The information system is intended to improve the academic information not only for cadets but also for lecturers in that the lecturers are able to know exactly their teaching schedule and details about their cadets, by making direct communication using Hot Messages for announcement to the cadets. In addition, the information system can also record the lecturers' attendance, so when the lecturers do not perform their jobs properly, there will be complaints from the cadets in the Hot Messages about the lecturer's performance and their non attendance. The system also shows the exact schedule of the subject, including days and times. Also, there are a lot of benefits of the information system, among others, to quickly check the data especially about academic affairs. Because of the connection to the internet, it becomes more efficient because the cadets do not need to come to their campus but they can do from their dormitory or from anywhere else except that they have to deal with things that must be done in their campus. In addition, the grade is available online and the cadets can check their grades online through the computer, their GPA and cumulative GPA and check what subjects they will take in the following semester for their SPC without making any consultation with their academic supervisors. Furthermore, the information system is not only beneficial for the lecturers, cadets and administrative staffs or the academy, for example the administration of SPC, grades, examination schedules and collection of examination questions can be done more quickly. The information system was previously made to improve the administration and to

prevent any cheating, and other things. Moreover, the availability of the system can truly monitor the security of the grades including the criteria for taking subjects by individual cadets. Additionally, because each lecturer is required to fill out some forms at the beginning of the semester, they can check whether they have met their load requirements. Finally, the information system strongly affects the performance of the administrative staff and lecturers. At the beginning, many people opposed the introduction of the system because it would downsize the administrative staff. However, after the system is adopted, the administrative staff find that they can perform their job more easily and the management can monitor each of their employees. Because the system is easy, it helps the administrative staff to carry out their jobs to serve the lecturers, cadets, and other parties. When information is requested or needed, it can be easily retrieved quickly without taking a long time.

#### **Assignment of Academic Supervisors**

So far the cadets are supervised by all organic members of Military Academy and are directly under the supervision of carers in Cadets Regiment, but academically they do not have academic supervisors. The improvement is made in that academic supervisors are assigned to all cadets. The reasons for this are as follows: 1) Guidelines of the implementation of the credit system by Directorate of Higher Education, page 16, number 1 points out that academic supervisors are assigned: to assist the students to prepare their study plans and facilitate them to select the subjects to be taken for the present semester.(Dikti,1983); 2) Academic supervisors assist their students to consider the total credit unit they can take; 3) Academic supervisors monitor the study progress of their students under supervision; 4) Academic supervisors provide guidance, direction, and assistance about the difficulties of each cadets; 5) Academic supervisors are playing the role of parents with their strong influence on the success of the cadets in their education.

### **The Use of Guidelines**

Previously there was no guideline of the semester credit system, then its guideline is developed. The reasons are: 1) Directorate of Higher Education requires that a guideline should be made available before the semester begins.(Dikti,1983, 16), 2) The guideline contains academic calendar, types and nature of the subjects, prerequisite or practice, types and number of prerequisite or practice subjects, credit units for obligatory and elective subjects, subjects offered each semester, attachment to the subjects including day and time of lecture, location of the lecture and lecturers assigned for the respective subjects.

### **Education acceleration**

The semester credit system gives opportunities to smart and hard working students to complete their study as quickly as possible. This can be accommodated because Military Academy is one of the state higher institutions established in a such a way with four year study duration. To accommodate that the cadets with GPA of more than 3.5 can finish their study more quickly, some comprehensive changes in various related systems should be made, including software, plans of all 10 educational components and educational management. However, the changes can only be made if there is a policy and it is realized by preparing all facilities and providing awards for those who have high achievement and can complete their study more quickly.

### **Curriculum**

The semester credit system facilitates the curriculum revision from time to time as a result of advanced development of science and

technology. The development of science and technology has changed people's life in a number of ways. Similarly, in military, the war nowadays is not the same as the war a century ago. The demand of science and technology will change the nature of Indonesian National Army from time to time including human resources, weapons, and all other related faculties. As pointed out in the study by Kosta, (2014) on Revolution of Military Education in Brazil, the education in Military Academy also requires some changes to adjust to the world development. The fundamental and substantial changes should be made dealing with the curriculum that will directly affect the graduates' competence and qualities.

### **Final Model**

In the final model, the applicability test was conducted by distributing questionnaires on the respondents' opinion on the developed model of learning management based on the semester credit system in Military Academy. The results of the test show that the developed model of learning management can be well applied in Military Academy. In responding to the application of the developed model of learning management based on the semester credit system, 90% of respondents consider that the model is suitable (where 40% very suitable and 50% suitable). Therefore, the developed model of learning management based on the semester credit system has passed the applicability test and it is feasible to be implemented in Military Academy.

The following figure presents in detail the developed model of learning management based on the semester credit system in Military Academy.

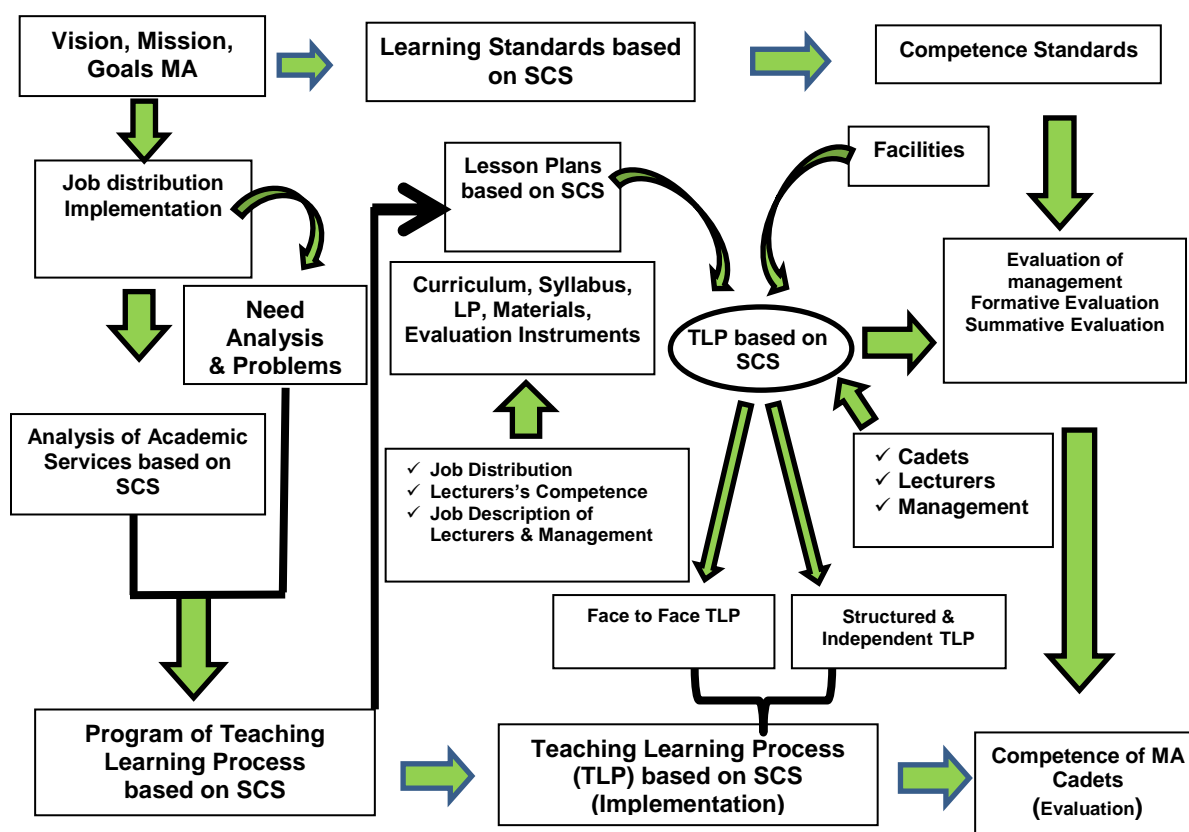


Figure 1. Theoretical model of learning management based on the semester credit system in Military Academy

## CONCLUSION

The learning management based on the semester credit system that has been implemented in Military Academy with three basic patterns, ranks and levels of cadets should be maintained by addressing a number of the following issues. (1) the implementation of Study Plan Cards (SPC), 2) the distribution of Study Results Cards (SRC), 3) the incorporation of scores of assignment into the final score of the subject, 4) the effective use of information technology; 5) the implementation of academic supervisors, 6) the availability of academic guidelines of the semester credit system; 7) the revision of the curriculum to adjust to the science and technology development; 8) the policy that cadets with CGPA of more than 3.5 can complete their study more quickly.

## REFERENCES

- Akmil. 2013. *Buku Petunjuk Pelaksanaan Evaluasi Hasil Belajar System Kredit Semester(SCU ) Cadets Military Academy*. Magelang: Akademi Militer.
- Bahadori, M., Sadeghifar, J., Nejati, M., Hamouzadeh, P., Hakimzadeh, M. 2011. *Assesing Quality of Educational Service by the SERVQUAL model: Viewpoints of Paramedical Students at Tehran University of Medical Science, Technics Technologies Education Management*, Vol.6, No.4.
- Borg, Walter R & Gall, Meredith Damien. 2003. *Educational Research, An Introduction*, New York & London: Longman.
- Bulgarelli, Aviana. 2010. *Linking credit systems and qualifications frameworks, An international comparative analysis*. Luxembourg: Publications Office of the European Union,
- Corum, James S., 2012, *Some Key Principles of Multinational Military Education*. Kansas: U.S. Army Command and General Staff College in Fort Leavenworth,

- Direktorat Jendral Pendidikan Tinggi. 1983. *Petunjuk Pelaksanaan System Kredit untuk Perguruan Tinggi*. Jakarta: Direktorat Jendral Pendidikan Tinggi, Kementerian Pendidikan dan Kebudayaan,
- Kosta, Rejane Pinto, 2014. *The Revolution Military y Affair in Scope Military y Education*, Rio de Janairo, Brazil: Soperior War College.
- Kwek, S.L., Lau, T.C., Tan, H.P. 2010. Education Quality Process Model and Its Influence on Students' Perceived Quality, *International Journal of Business and Management*. Vol.5, No.8.
- Nguyen Thanh Binh, Hoang Thi Anh Duong, Tran Hieu, Nguyen Duc Nhuan, Nguyen Hong Son. 2007. *An integrated approach for an academic advising system in adaptive credit-based learning environment*. Hanoi: Information Technology Center (HITEC), Hue University.
- Nwadiani, Mon & Ofoegbu, FI. 2012. Managing Wastage in Nigerian Universities Course Credit System: Assessment of Undergraduate Students' Performance In Carry-Over Courses. *Journal of Educational systems Research and Development*, Vol. 4, No. 2.
- Tagarev, T.D. 1997. The Role of Military Education in Harmonizing Civil-Military Relations (the Bulgarian Case). NATO Democratic Institutions Individual Fellowship Project, Presented in fulfillment of the Fellowship Agreement, NATO Democratic Institutions Fellowship Programme, Final Report, June 1997.
- United States Military Academy. 2016. *West Point Academic Program of Class*, New York: US Military Academy.
- Yusof, ARM., Hassan, Z., Rahman, SA., Ghouri, AM., 2012. *Educational Service Quality at Public Higher Educational Institutions: A Proposed Framework and Importance of the Sub-dimensions*. *International Journal of Economics Business and Management Studies*. Vol. 1, No.2, 36-49.