

# The use of ICT for Learning Guidance for Junior High School in Indonesia

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**Abstract**—In this paper, we will be present Guidance and Councelling (GC) class action research. The research was done because a fact that some students are still learning ways such as in elementary school. The research objective is to enhance the value of “academic performance report” grade by using ICT as GC Learning Guidance services. The research method was carried out with two cycles. First cycle is applying Learning Guidance services indirectly and not programmed. Second cycle into two implementing Learning Guidance services indirectly, programmed and using ICTs primarily mobile phones and computer media applications i.e. “m-NingBK©: Learning Guidance” and “screen saver: Learning Guidance”. A research subject is a class VII student who has the lowest value of “academic performance report”. The result is by using an indirect GC services with ICT there were significant changes.

**Keywords**—ICT, Learning Guidance, action research and Guidance and Councelling

## I. INTRODUCTION

ONE of the main tasks of a teacher is trying to help students to succeed in the study, so students can complete their study program with maximum results. A fact that the “academic performance report” of class VII show that there are some students who have the lowest value. This indicates that some students are still learning ways such as in elementary school.

Seeing this fact, the author who became a teacher class VII, wanted to help improve student learning outcomes, in addition to using the service in the classical style, group or individual with conventional media, the author tried to use other additional media namely Information and Communications Technology (ICT) main media mobile phones and computers. This is one way the authors to use of ICT as a service Guidance and Counselling (GC) indirectly to enhance the subjects value for student of Junior High School (JHS) grade VII. In State Junior High School 18 Purworejo, Central Java, Indonesia (SJHS 18 Purworejo) students are prohibited from carrying cell phones during class hours, so we serve the GC outside study hours in the afternoon. This is done with the knowledge of Mrs. Pratiwi as the vice of school in curriculum field. In addition, a screensaver with the content “how to learn efficiently and effectively” used as a medium GC indirectly installed in the computer lab. For this purpose, the authors worked with the head of a computer lab, which is currently held by Mr. Budi Wijiarso.

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Screensaver is a moving multimedia design that appears on a computer screen when there has been no input from keyboard or mouse for a specified period of time. Multimedia design may be either integrated into the five components of multimedia i.e. text, images, audio, animation and video. For example, a collection of pictures / photographs can be made more attractive and in accordance with our desire to move with the added element of animated text and sound. This component can be used as screensaver.

## II. LITERATURE REVIEW

According to the Regulation of the Minister of National Education Republic of Indonesia Number 19 Year 2007 About Standards Unit Management Education by Primary and Secondary Education, one of the tasks the school / “*madrasah*” is to provide counseling services to students.

Mohammad Imam Farisi (1994) states tutorial activities or Learning Guidance as a technical term is widely defined as a guidance or learning-assistance, which is a process by which a person gives assistance and guidance to learn to others. In other words, the concept of mentoring and Learning Guidance includes study aids are perorangan or in groups. With the tutorial is expected to teach a child or someone who would be able to master the material because he can learn through the assessment process and not a rote process, and they will be better able to communicate with each other [1].

Trijanto (2006) conducted a study with the Classroom Action Research program is one course of action learning with the implementation of quality improvement, among others, by improving the quality of guidance, ie with more clear direction for students in performing a given task. The result with adequate provision of Learning Guidance real improvement [2].

Dewiki Santi (1995) conducted research on student interest in reading the Open University (OU) the results of this study indicate that OU students as other Indonesian people, most do not yet have an accurate reading. Evidenced by the many questions they nor the OU catalogs, especially catalogs OU 1995. It may also occur because of the many publications catalog OU every year, whether rectified or plus contents [3].

When Purnami Ratna Dewi (2006) states that related to students' learning habits that are less good, students need a lot to read and make brief notes and create concept maps for all subjects, whereas the part of the teacher then suggested to the teacher of teachers BK economic cooperation to provide guidance services to learn about effective ways of learning to the students [4].

Uji Windiyanto (2009) conducted a study with the aim to determine the effect of the implementation of the role of GC teacher and the intensity of the student council to follow the activities of the discipline to obey the order of the school in JHS students in grade VIII District Cokroaminoto Wanada in Academic Year 2008/2009. The study population was 70 students. Study sample as many as 30 students, which is based on correlative studies of this type of research, so that a representative number of samples is 10% of the population [5].

A learner who will actually learn intensively, not only depends on the availability of qualified teachers or lecturers only, but must mampu optimize all available learning resources, including the Internet. Internet technology allows the establishment of a network of learning (learning network) between the learners with other learners, and even between learners with different learning resources, which go beyond the boundaries of school walls, even beyond national boundaries even once. Thus will the era of global collaboration in the realization of learning systems, so for a learner, the world would be a kind of "global campus" where he studied constantly throughout his life [6].

So Rhiza S. Sadjad (2008) stated that now is the era of Globalization, Learning Systems and Information Communication Technology (ICT). He cited a report from UNESCO that the learning process of every human being should last a lifetime so that the teacher only as a source of learning in addition to other learning resources. Learning facilities with standard facilities ie laboratories, libraries, etc., or multimedia-based learning facilities such as video, audio, LCD, computers / laptops, etc. Therefore, ICT as a learning resource is a demand in today's era [6].

### III. THEORY

Guidance and Counselling (GC) service in the Indonesian school / "madrasah" is an effort in helping learners to develop personal life, social life, learning activities, as well as planning and career development. Mentors try to help the development of learners, individual, group and or classical, according to the needs, potential, talents, interests, developments, conditions, and opportunities they have. This service also helps overcome the weaknesses and obstacles and problems faced by learners. [7][8]. This is supported by the Personnel Standards and Education (Independent School Concept Category (SKM) / School National Standards (SSN) is a school that is almost or already meet national education standards. Which states that the successful implementation of education in school is determined by the quality and quantity school human resources consisting of educators and education personnel. power in quality educators must meet the academic qualifications, professional certification and educational conformity with the subjects taught. While the quantity shall comply with the ratio of teachers and learners. the educational staff consists of at least of the principal, administrative staff, librarians, laboratory personnel and personnel hygiene. labor must meet the requirements of the school educational competencies required.

GC in JHS services based on GC Service Unit [8][9][10][11] concretely formulated through four guidance of (a) Personal, (b) Social, (c) Learning, and (d) Career (Fig. 1).

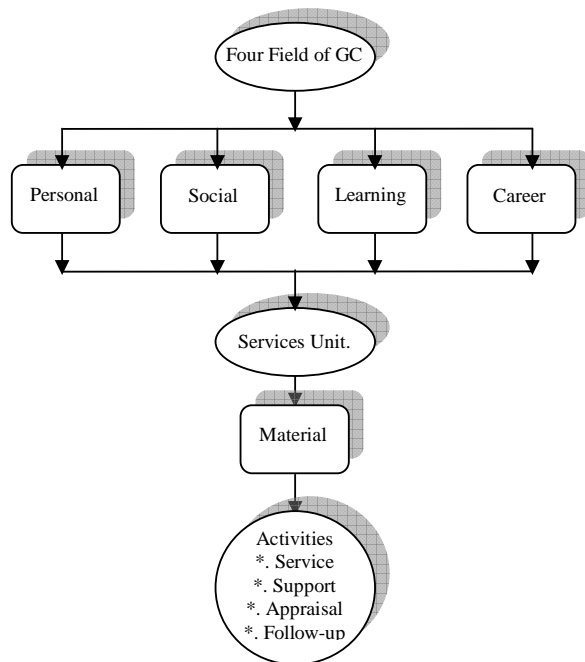


Fig. 1 Four Field Guidance and Counselling (GC)

Referring to the four service areas of GC (Fig. 1), the authors have developed ICT applications is content for the field of learning guidance services [9], called m-NingBK© (Fig. 2) and screensaver: "Learning guidance" (Fig. 3).

ICT applications content that have been developed as shown by Table I.



Fig. 2 Content services on the application of m-NingBK ©: "Learning Guidance"

Academic qualifications of educators in Indonesia must meet the aspects and indicators are:

- More than 75% of educators qualified academic diplomas minimum of four (D-IV) or a bachelor degree (S1).
- More than 75% of educators with a background in higher

- education programs in accordance with the subjects taught.
- c. More than 75% of certified educators teaching profession for SMA / MA.
- d. Available guidance and counseling teacher / counselor.
- e. Teacher guidance / counseling services to help students both academic and non academic.
- f. The ratio of teachers and learners according to the provisions.
- g. Increased capability of teachers in developing teaching materials.



Fig. 3. Some displays of Screensaver "Learning Guidance"

TABLE I

GC SERVICES ON THE APPLICATION M-NINGBK©: "LEARNING GUIDANCE"

No.	Item
1	Overview How to Study
2	Method of reading SQ4R (Survey, Question, Read, Recite, Record & Review).
3	How to study effectively and efficiently: <ul style="list-style-type: none"> <li>• How to registering.</li> <li>• How to memorize.</li> <li>• Increasing the concentration of study.</li> </ul>
4	Reviewing the results of tests / value of the semester "academic performance report" and ways to improve it
5	Motivation to learn (for what the school).
6	Facing the Tests: <ul style="list-style-type: none"> <li>• Preparation faces test</li> </ul>
7	When faced with a test

GC is a service to help students, either individually or in groups, to be able to independently and develop optimally, in the field of development of private life, social life, learning, and career planning, through various types of services and support activities, based on the norms applicable [7]. GC Services at the Indonesian JHS include "pattern 17" namely: the four areas (personal, social, learning and career), seven services (orientation, information, placement, learning, individual counseling, group counseling, and group counseling), and five supporting activities (instrumentation applications, case conferences, home visits, over the hands and assessment of follow-up) [12].

GC is a service specifically support / services provided to students so that students can find / understand the personal self, to know the environment, develop themselves, and plan its future [4][5]. In this way, school counselors have to share their lived stories of what works in a variety of contexts such as articles in professional journals and web sites [13]. In addition, school counselors must have leadership as a necessary skill and as a means of aligning their work more intentionally with school improvement goals [14].

IV. RESEARCH FRAMEWORK AND METHODOLOGY

Research subjects were students and students' classroom VIIB VII class C which has the lowest value of "academic performance report", the Academic Year I/2007-2008. to II/2007-2008. The number of students under study is composed of 69 men 29 and women 40. But that will be followed by development for 1 year is 20 students consisting of 12 men and 8 women.

In general there are a number of students of SMP Negeri 18 Purwokerto experiencing learning difficulties, there are indications that students have the lowest value of "academic performance report".

Based on this, the author is aware of the problem in the way of learning that lead to low values. Through these research activities is expected of students to understand and be motivated to make a better way of learning.

Based on this, the author is aware of the problems in learning, resulting in the lowest point assessment. Through these research activities are expected students to have insight and a better career preparation. Table 2 shows the GC Action research and Fig. 4 shows the frame of mind in the research conducted.

TABLE II  
THE GC ACTION RESEARCH

Action	Initial	Cycle I	Cycle II
Direct			
• classical	-	V	V
• Individuals	-	V	V
• Groups	-	V	V
• Leaflets	-	V	V
• Posters	-	V	V
Indirect			
• ICT: "m-NingBK © "Learning Guidance"	-	-	V
• ICT: Screen saver: " Learning Guidance	-	-	V

There are two cycles for the actions taken are:

Cycle I:

- Action Planning: preparing GC lesson plans (according to the type of services Learning Guidance).
- Implement Action: students are given in the classical style Learning Guidance service, group or individual and not programmed.
- Carry out observations: researchers observed the students' "academic performance report" of class VII BC, the

observed results shown in bar chart form.

- Implement reflection by comparing the results of initial conditions with cycle I.

*Cycle II:*

- Planning Action: Repair the action I (stages according to the type of service)
- Implement Action: besides using the classical style of service, group or individual with conventional and programmable media. The author tried to use other additional media namely Information and Communications Technology (ICT) media primarily mobile phone and computer application that is m-NingBK©: "Learning Guidance" and screensaver: "Learning Guidance".
- Carry out observations: researchers observed the students' "academic performance report" of class VII BC, the observed results shown in bar chart form.
- Implement reflection by comparing the results of cycle I and cycle II.

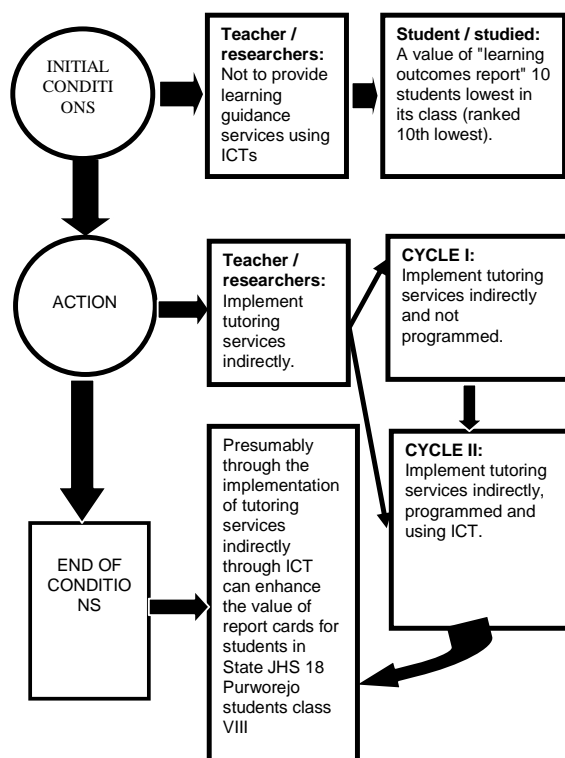


Fig. 4 Research Framework

V. RESULT AND DISCUSSION

*A. Initial condition (Cycle I):*

Table III and table IV show the profile of class VII BC: initial conditions.

TABLE III  
THE "ACADEMIC PERFORMANCE REPORT" FOR VII B CLASS AT 1<sup>ST</sup> SEM

No.	GC Code	1 <sup>ST</sup> SEM
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		Tot	Rank
1	8/7B/BK/0708	812	10
2	7/7B/BK/0708	809	9
3	26/7B/BK/0708	808	8
4	13/7B/BK/0708	808	7
5	2/7B/BK/0708	807	6
6	23/7B/BK/0708	803	5
7	1/7B/BK/0708	801	4
8	10/7B/BK/0708	798	3
9	25/7B/BK/0708	796	2
10	32/7B/BK/0708	793	1

TABLE IV  
THE "ACADEMIC PERFORMANCE REPORT" FOR VII C CLASS AT 1<sup>ST</sup> SEM

No.	GC Code	1 <sup>ST</sup> SEM	
		Tot	Rank
1	34/7C/BK/0708	813	10
2	31/7C/BK/0708	812	9
3	29/7C/BK/0708	811	8
4	2/7C/BK/0708	810	7
5	18/7C/BK/0708	807	6
6	15/7C/BK/0708	800	5
7	7/7C/BK/0708	798	4
8	5/7C/BK/0708	796	3
9	4/7C/BK/0708	794	2
10	8/7C/BK/0708	793	1

*B. Action Planning (Cycle I)*

- i. apperception:
  - Creating a conducive relationship with student
- ii. core activities:
  - Describe the sense of learning.
  - Explain how multiple sources of learning.
  - Describe the methods of learning.
  - Ask the students to convey their opinions on matters that may affect learning
- iii. closing activities:
  - Provide students the opportunity to ask questions about things that are not yet clear and counselors try to answer students' questions.

*C. Implement Planning (Cycle I):*

- i. All students in of class VII BC (second semester of School Year 2007/2008) given in the classical Learning Guidance services and groups.
- ii. In particular, 10 students a class VII B and VII C grade 10 students who have ranked 10th lowest in its class (second semester of School Year 2007/2008) given in the classical style Learning Guidance service, coupled with group and individual services.

*D. Carry out observations (Cycle I):*

- i. Service process:
  - Doing observation*
    - researchers observed the students' "academic performance report" of class VII BC, the observed results shown in bar chart form.
    - researchers looked specifically at the students' "academic performance report" of class VII BC, which (in the first semester of School Year 2007/2008) has ranked 10th

lowest in its class. The results were observed displayed in bar chart form.

ii. Result:

- Table V and Table VI shows the development of rapport and ranking values were observed for 20 students (class VII BC). Apparently there is an interesting change. In class VII B there are 5 students who rank up (not to 10 the lowest). Whenever there is a VIIC class ranking of students who ride (not to 10 the lowest). This indicates that there are 30% of students who have successfully come out of the 10 lowest ranking. But there are still 70% who remain in the 10 ranking lowest.

TABLE V  
THE "ACADEMIC PERFORMANCE REPORT" FOR VIIB CLASS AT 1<sup>ST</sup> AND 2<sup>ND</sup> SEM

.No.	GC Code	1 <sup>st</sup> SEM		2 <sup>nd</sup> SEM	
		Tot	Rank	Tot	Rank
1	8/7B/BK/0708	812	10	806	13
2	7/7B/BK/0708	809	9	805	11
3	26/7B/BK/0708	808	8	824	19
4	13/7B/BK/0708	808	7	812	16
5	2/7B/BK/0708	807	6	800	9
6	23/7B/BK/0708	803	5	806	12
7	1/7B/BK/0708	801	4	789	4
8	10/7B/BK/0708	798	3	802	10
9	25/7B/BK/0708	796	2	783	2
10	32/7B/BK/0708	793	1	771	1

TABLE VI  
THE "ACADEMIC PERFORMANCE REPORT" FOR VIIC CLASS AT 1<sup>ST</sup> AND 2<sup>ND</sup> SEM

No.	GC Code	1 <sup>st</sup> SEM		2 <sup>nd</sup> SEM	
		Tot	Rank	Tot	Rank
1	34/7C/BK/0708	813	10	799	3
2	31/7C/BK/0708	812	9	804	7
3	29/7C/BK/0708	811	8	813	10
4	2/7C/BK/0708	810	7	813	9
5	18/7C/BK/0708	807	6	807	8
6	15/7C/BK/0708	800	5	793	2
7	7/7C/BK/0708	798	4	789	1
8	5/7C/BK/0708	796	3	802	6
9	4/7C/BK/0708	794	2	837	16
10	8/7C/BK/0708	793	1	802	5

*E. Reflections (Cycle I):*

Reflections on the learning process has been rather well because the class VII B there are 5 students who rank up (not to 10 the lowest). Also student class VII C with the value rapport and the class ranking are up. This indicates that there are 30% of students who have successfully come out of the 10 lowest ranking. But there are still 70% who remain in the 10 ranking lowest.

Reflections on learning outcomes for first cycle: Need improvements to second cycle.

*F. Action Planning (Cycle II):*

i. apperception:

- Creating a conducive relationship with student

ii. core activities:

- Describe the sense of learning.
- Explain how multiple sources of learning.

- Describe the methods of learning.
  - Ask the students to convey their opinions on matters that may affect learning
- iii. closing activities:
- Provide students the opportunity to ask questions about things that are not yet clear and counselors try to answer students' questions.

*G. Implement Planning (Cycle II):*

- i. All students in grade VIII BC (first semester of School Year 2008/2009) given in the classical Learning Guidance services and groups.
- ii. In particular, 10 students of class VIII B and 10 students of class VIII C, which has ranked 10th lowest in its class (in the first semester of School Year 2007/2008) given in the classical style Learning Guidance service, coupled with group and individual services as well as added by using namely ICT media applications m-NingBK@: "Learning Guidance" and screensaver "Learning Guidance"

*H. Carry out observations (Cycle II):*

i. Service process:

*Doing observation*

- researchers observed the students' "academic performance report" of class VII BC, the observed results shown in bar chart form.
  - researchers looked specifically at the students' "academic performance report" of class VII BC, which (in the first semester of School Year 2007/2008) has ranked 10th lowest in its class. The results were observed displayed in bar chart form.
- ii. Result:
- Table 7 and 8 shows the development of "academic performance report" and the ranking value of 20 students were observed. Apparently there is an interesting change. In class VII B, there are 3 students can defend myself up (not the 10 lowest for semester 2 and semester 3). Whenever there is a C class VII students who rank up (not to be the lowest for 10 semesters 2 and 3). This indicates that there are 20% of students who can maintain the self to get out of the 10 lowest ranking, there is even a big nine highest occupied (from rank to 26-15-9) and some are able to raise quite encouraging ranking from the lowest ranking of No. 2 or rank 35 to rank 16 (from rank to 35-21-16). To two students this its "academic performance report" ride height.

TABLE VII  
THE "ACADEMIC PERFORMANCE REPORT" FOR VIIB CLASS AT 1<sup>ST</sup>, 2<sup>ND</sup> AND 3<sup>RD</sup> SEMESTER

No.	GC Code	1 <sup>st</sup> SEM		2 <sup>nd</sup> SEM		3 <sup>rd</sup> SEM	
		Tot	Rank	Tot	Ran	Tot	Rank
1	8/7B/BK/0708	812	10	806	13	886	17
2	7/7B/BK/0708	809	9	805	11	871	12
3	26/7B/BK/0708	808	8	824	19	898	25
4	13/7B/BK/0708	808	7	812	16	865	8
5	2/7B/BK/0708	807	6	800	9	807	1

6	23/7B/BK/0708	803	5	806	12	856	3
7	1/7B/BK/0708	801	4	789	4	874	14
8	10/7B/BK/0708	798	3	802	10	881	15
9	25/7B/BK/0708	796	2	783	2	857	4
10	32/7B/BK/0708	793	1	771	1	861	6

TABLE VIII

THE "ACADEMIC PERFORMANCE REPORT" FOR VIII CLASS AT 1<sup>ST</sup>, 2<sup>ND</sup> AND 3<sup>RD</sup> SEMESTER

No.	GC Code	1 <sup>st</sup> SEM		2 <sup>nd</sup> SEM		3 <sup>rd</sup> SEM	
		Tot	Rank	Tot	Rank	Tot	Rank
1	34/7C/BK/0708	813	10	799	3	863	5
2	31/7C/BK/0708	812	9	804	7	874	9
3	29/7C/BK/0708	811	8	813	10	887	17
4	2/7C/BK/0708	810	7	813	9	860	3
5	18/7C/BK/0708	807	6	807	8	885	14
6	15/7C/BK/0708	800	5	793	2	859	2
7	7/7C/BK/0708	798	4	789	1	874	8
8	5/7C/BK/0708	796	3	802	6	844	1
9	4/7C/BK/0708	794	2	837	16	899	21
10	8/7C/BK/0708	793	1	802	5	864	6

*I. Reflections (cycle II):*

It turned out that with the addition of the media for GC services are not directly improve the process I.

Reflection of learning: GC services need to be done directly and indirectly.

*J. Discussion (cycle II):*

1. Discussion of action than the action of the initial conditions, the cycle I and cycle II, can be seen in the table 8.

2. Discussion of the observations compared to observations both process and outcome of initial conditions, the cycle I and cycle II. There are 20% of students who can maintain the self by not being in the lowest ranking of 10, some of which occupy a large 9 the highest (from rank to 26 → 15 → 9) and some are able to raise quite encouraging ranking from the lowest ranking of No. 2 (or rank 35) to rank 16 (from rank to 35 → 21 → 16).

TABLE VII  
THE GC ACTION RESEARCH

Action	Initial	Cyclus I	Cyclus II
<b>Direct</b>			
• classical	-	V	V
• Individuals	-	V	V
• Groups	-	V	V
• Leaflets	-	V	V
• Posters	-	V	V
<b>Indirect</b>			
• ICT: "m-NingBK © Learning Guidance"	-	-	V
• ICT: Screen saver: "Leraning Guidance"	-	-	V

3. Discussion of the results of reflections of reflections compared to the initial conditions, the cycle I and cycle II, it can be stated that in fact with the addition of GC media and guidance services indirectly improve processes I. Therefore, GC service needs to be done directly and indirectly by using various media, especially using ICT.

*K. Result (cycle II):*

1. The results of this study was GC service needs to be done directly and indirectly. ICT media used is the application "m-NingBK © Learning Guidance" and screen saver "Learning Guidance" can be utilized as a service indirectly.

2. The results based on empirical data in this chapter there are two things that are revealed, namely on:

a. The learning process: the supervisor needs to be constantly looking for other media services, especially ICT to enrich both BK to the service directly or indirectly.

b. Learning outcomes:

• Services need to be done in the classical BK, individuals and groups using a variety of media, especially with the ICT.

• GC Services indirect use of ICT media applications "m-NingBK © Learning Guidance" is executed using the mobile phone and screen saver that is placed on the school computer labs can help enhance the value of student "academic performance report" and the ranking of students who have the lowest value.

## VI. CONCLUSIONS

Based on research results and the results of the analysis has been carried out with results that will be concluded as follows:

1. GC Services Learning Guidance directly either in the classical style, individual and group needs to be done in junior high school counselors.

2. GC Services Learning Guidance indirect use of ICT media applications "m-NingBK © Learning Guidance" is executed using the mobile phone and screen saver that is placed on the school computer labs can help enhance the value of "academic performance report" and the ranking of students who have ranked 10th lowest in its class.

3. From the results of the analysis of the value of "academic performance report" show a significant difference. Thus the hypothesis "Through the provision of GC services indirectly by use of ICT can enhance the value of "academic performance report" " means acceptable to the results before and after BK Learning Guidance services were no significant differences on increasing the value of "academic performance report".

4. For future studies, the following are the chances of developing the system could be developed similar applications as a means of providing guidance counseling services help outside of school time, especially using ICT. The use of cell phones (one of the means of ICT) outside of school hours can be used as a means of guidance services indirectly.

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