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## Learning Efficiency of Student of PG-PAUD FKIP Study Program of Universitas Riau

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### ABSTRACT

The learning efficiency of teachers candidate, especially those of Early Childhood Education (ECE) need to pay serious attention because of their strategic role in preparing golden generation for the next 45 years of Indonesian people qualified and competitive. The purpose of the study was to describe the category of the students learning efforts and achievement of PG PAUD Study Program of FKIP Universitas Riau. The methodology used is 'survey' in the form of quantitative descriptive research. The research found out that the student's learning efficiency by and large falls in three categories; high (39%), moderate (35%), and low (26%), and the cumulative achievement index of the students is also in three categories, very good (31%), good (97%) and Middle(0,78%). But, in general, the student's learning efficiency scores falls in the high category (79,97%), and the cumulative achievement index of the students is also in good and very good category.

**Keywords:** *efficiency, learning effort, learning achievement (CAI/IPK)*

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### Introduction

The learning efficiency of teachers candidate, especially for those who are taking Early Childhood Education Course needs to get serious attention because it has important role and very strategic in order to prepare for the golden generation (golden age) in 45 years hence for qualified and competitive Indonesia people. FKIP as the educational institution for education personnel (LPTK) have authority and responsibility to prepare for the qualified and professional teachers candidate. However, the achievement of FKIP to arrange teachers candidate especially PAUD teachers candidate will be determined by many factors that can be categorized to internal and external of the

institution. In this case, the factor that can be controlled by FKIP is internal factor such as the efficient effort and learning outcomes of students. Students are the main subject of learning. According to Teachers and Lecturers law No 14, 2017 and Government Policy No 78, 2008 regarding teachers are professional educator with criteria that teachers have to master 4 basic competences; pedagogic, personal, social, and professional competences. PAUD students are prepared to be professional and qualified teachers. In other word, they must be able to compete and tested and praised among early childhood educators in the region of Southeast Asia in 2035. In order to accomplish vision and mission of FKIP Universitas Riau, the efficiency of students learning process should be paid attention, in

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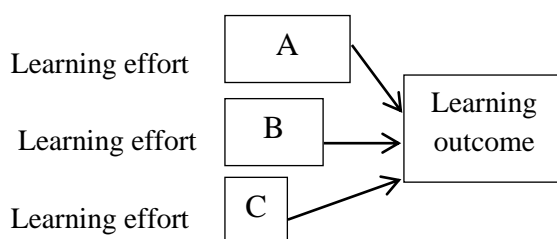
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order to reach that by conducting research that can be used as the basic process of consulting students and learning management based on research findings. This paper is based on the research findings that writer conducted to the students of FKIP Universitas Riau. The writer was interested to discuss about the learning efficiency of PG-PAUD students based on the observation as the lecturer of this course. He found there was a problem of student's effort to study and the academic result was not really good. The symptom process and the academic result of the students were alarmed comparing to the result of teachers competency test (UKG) in national scale in 2005, where the lowest middle score in pedagogic and professional competence was 53,05 from 100 scale. Moreover, the result of UKG PAUD in Riau is lower than the national score which the middle was 51,68 from 100 scale (51,68%).

Meanwhile, the minimum requirement score of process and the result of PLPG and PPG in order to pass the certification is 80. In this case, Dirjen Guru and Tenaga Kependidikan (GTK), The Ministry of Education and Culture: Sumarna Sura Pranata in Media Centre (Wednesday, 5th April 2017- 10:06:37 WIB) says that the score of 80 is the minimum score to pass the certification. Teachers who want to get profession fee have to pass the certification test. In line with that, the minimum score that has to be reached to pass the criteria is 80. He adds that the score is proper because teachers are demanded to have high competence and professionalism. The problem that will be discussed in this paper is: how is the efficiency description of PG-PAUD FKIP Universitas Riau students in 2017? Specifically, the research questions that will be discussed are: (1) how is the description of students' effort to learn? (2) how is the description of PG PAUD

students' cumulative achievement index (CAI) of FKIP Universitas Riau in 2017?; and (3) is there any positive influence of students effort toward the students' CAI in 2017? This paper is expected to provide information about the efficiency of student learning PG-PAUD FKIP UR, Year 2017. Specifically, the purposes of this paper are to: (1) to describe the student's learning efforts, (2) ) to describe the learning outcomes (CAI) of Students; and (3) to describes the correlation of student learning effort with CAI of PGPAUD FKIP UR Students, Year 2017. Concept of Learning Efficiency, the term of efficiency is known in management concepts. Any institutionalized activity such as an educational unit requires management for the purpose of the institution to be achieved effectively and efficiently. One of the successful management of educational institutions is the efficiency of learners (students). The efficient word in the Oxford Advanced Learner's Dictionary of Current English (AS Hornby: 1987) means 1 (of person) capable; able to perform duties well. In the context of students, efficient means the students must be able to make a good learning effort in order to achieve good learning result/outcomes. According to The Liang Gie, et al (MCMLXXXII) efficiency is an understanding that defines the best comparison between an effort and its outcome. Efficient in work is the best comparison between a works with the result. Meanwhile, the term of efficiency is a concept that reveals the best comparison between effort and outcome (Muhibbin Shah: 1999). The concept of learning is basically a change of behaviour. Alex Sobur (2003) states that learning can be defined as a change in behaviour that relatively fixed as the result of experience. Slameto (2010: 2) argues that "Learning is a process of effort that a person takes to

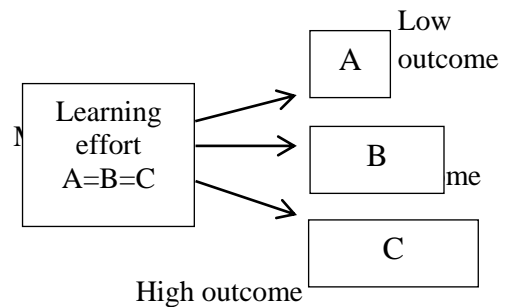
gain a total new behavioural change, as the result of his own experiences in having interaction with his surrounding environment. A change in behaviour in the context of learning outcomes contains 3 dimensions/ aspects, namely the aspects of cognitive, affective, and psychomotor. Related to the concept of learning means the process of transforming learners in cognitive, affective, and psychomotor aspects into basic competencies. The basic competencies for teacher's candidate will be focused to the basic competence of the teacher profession, namely pedagogic, personality, social, and professional competences. Thus, the concept of efficiency in the context of learning has a meaning, efforts to improve the quality of learning and mastery of course materials; abbreviate learning time; improve the ability of teachers / lecturers, reduce costs without decreasing the quality of teaching and learning. In the modern learning paradigm, the concept of learning efficiency centres on the effort and learning outcomes of the students. Based on the concept of the efficiency of learning as mentioned above, that efficient learning has 2 aspects, namely the efficiency of learning efforts and efficiency of learning outcomes. According to Muhammad Zainudin(2011), efficiency from the learning effort point of view can be figured out as follows:



The picture above shows that the learning effort in C is more efficient than A and B, because with minimal effort can achieve

learning outcomes that are as high as the learning achievement of A and B. In fact, A and B have given more efforts than C.

The efficiency of learning outcomes can be categorized to be efficient if with a certain learning effort results high learning achievement. For more details, see the following picture:



The picture above describes that C is the most efficient learners in terms of achievements, because it shows an opposite comparison from the learning outcomes. In this case, although the learning effort of C as same as A and B, it has achieved an higher than A and B.

Efficient Learners, before starting to learn it is better to determine what job or task to be completed. Do not at the same time complete all tasks simultaneously because it is too heavy and will be resulted not maximal. When doing a job, we just focus on the task and do other tasks. Then, put in under your control, in the sense of investigating the end outcomes of learning, if in certain areas get poor results then restudy and review the field deeply. Continuously control of the end result of learning because it will improve learning achievement. keep optimistic attitude, compete with yourself and do something as perfect as possible. So it will grow an optimistic sense of to achieve something. The spirit that arises will increase the confidence level. Then, Work time and rest need to be set. Do not work too long

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because a person's concentration level usually does not last long. Differing from a programmed working time means failure. Therefore, make a good work plan. It is better to arrange a plan for tomorrow a day before. Use time efficiently with time management. Give more time to the area you may find weaknesses but do not ignore other area. Efficient learners should use the best time as smart as possible. Use free time to learn and not waste time. Do not be rushed by time, keep working quietly, carefully and full of concentration. Study hard with full of concentration is not destructive. But using sleep time to learn that can affect the body. Use the best time to rest. How to master a book will determine the efficiency of learning. Before reading a book, pay attention to the title of the book and give any description. Then consider the table of contents and in a certain chapter try to describe the contents based on the outline. Increase the speed of reading and be able to understand contents extensively as short as possible. This will enhance reading efficiency and will shorten the time. But do not read it for nothing. Reading should be followed by a comprehension of the words that have been read. After reading a passage and then paraphrases it. Increasing comprehension can be done by giving a coloured line on a certain word which is considered essential and try to make a summary. Learning outcomes, is something that is held, acquired, as a result of effort (KBBI, 2001: 391). Learning outcome means learning outcomes gained from learning efforts. Dimiyati and Mudjiono (1994: 18) suggest that learning outcomes are a result of the learning process. Learning outcomes can be the impact of teaching and impact of complement. Learning outcomes according to Bloom's Taxonomy include cognitive aspects (knowledge domain, brain work),

affective aspects (sphere of spiritual attitudes and social attitudes, heart work), and psychomotor aspects (skill, muscle work). Anas Sudijono (2006) quotes Benjamin S Bloom and colleagues, that the cognitive domain has six levels from low to high, namely knowledge, comprehension, application, analysis, synthesis, and evaluation. Then, Anderson and Krathwohl (2001) suggest different levels of cognitive terms with the opinions of Blom et al. (1) remember, (2) Understand, (3) Apply, (4) Analyze, (5) Evaluate, and (6) Create. Then, affective domain according to Krathwohl, et al (in Anas Sudijono (2006) categorized into five levels, namely (1) receiving, receiving responding, (4) Organization (organizing or organizing, and (5) Characterization by a value or value complex. The psychomotor domain learning outcomes relate to skill or skill acts after one gets experience learning in particular. The results of the psychomotor field study by Simpson (in Anas Sudijono, 2010) appear in the form of skills or individual acting skills. This psychomotor learning outcome is actually a continuance of the cognitive learning outcomes (comprehension) and affective results (newly seen in forms of tendencies to behave). Learning outcomes can be seen after the assessment or measurement by tutors to students. The results of assessment or measurement in the form of numbers called the index of learning achievement. Students' learning outcomes are expressed by "achievement index (AI/IP) and cumulative grade point (CAI/IPK). The IP is a number that shows student achievement for 1 semester. IPK is a number that shows student achievement from the first semester to the last semester that has been taken cumulatively (FKPI University Manual, 2015-2016: 47).

### Methodology

The methodology used is ‘survey’ in the form of quantitative descriptive research. The population is 182 third and fifth semesters students of PGPAUD Study Program, in the academic year 2017 and the sample was taken randomly as many as 129 students. The data were collected by questionnaire through google drive application program. The data were analyzed by using percentage formula (%) and Chi Square formula.

### Result and Discussion

1. Student Learning Effort of PG PAUD Study Program FKIP UR 2017. Student learning effort of PG PAUD Study Program was measured from 17 indicators in category A (3), B (2), and C (1). That is, Category A is higher student learning effort with weight 3, from category B weight 2, and lowest category C weight 1. Then, Based on the weighting was obtained the ideal score and actual score of each indicators of learning effort as can be seen in table 1 below.

Tabell: indicators of students learning effort

N o.	Indicators	Actual score	Ideal Score	%	Category
1	Use of power / self-power to learn	290	387	74,94	High
2	Effort to attend class	377	387	97,42	High
3	Effort to memorize course material	310	387	80,10	High
4	Effort to understand course material	347	387	89,66	High
5	Effort to apply knowledge gained from course	347	387	89,66	High

6	Effort to analyse course material studied	335	387	86,56	High
7	Effort to synthesize course material studied.	261	387	67,44	High
8	Effort to assess course material from the benefits in term to develop PAUD teacher profession	363	387	93,80	High
9	Time allocation to study	224	387	57,88	Middle
10	Time allocation for group study	310	387	80,10	High
11	Time allocation to learn from internet	307	387	79,33	High
12	Time allocation to visit library	249	387	64,34	High
13	Time allocation to study out of regular class	222	387	57,36	Middle
14	Ownership of textbooks	336	387	86,82	High
15	Use of computer applications	361	387	93,28	High
16	Use of study space	302	387	78,04	High
17	Ownership of learning aids	320	387	82,69	High
	<b>Average</b>	<b>309,47</b>	<b>387</b>	<b>79,97</b>	High

Criteria:

Height: 66.68 - 100

middle: 33.35 - 66.67

Low: ≤ 33.34

Based on the data in table 1 above, it shows overall (middle score) of 17 indicators of student learning effort of PG-PAUD students FKIP Universitas Riau Semester 3 and 5 in year 2017 is in high category (79,97%). However, there are 2 (two) indicators of students' learning effort in middle category, namely: (1) Time allocation (hours) to study outside regular class with lecturer in lecture room (57,88%); and (2) the use of leisure time to study outside college hours (57.36%). The

indicator indicates that the effort of student of PG-PAUD FKIP Universitas Riau, semester 3 and 5 in year 2017 from the aspect of allocation and the use of time to study outside regular class with lecturers in lecture hall still not maximal. It can be seen from the questionnaire responses submitted to the students, it found that most of the students allocate and use the time to study outside regular class in the lecture hall on campus about 2-3 hours per day, and a small number of students allocates and uses time equally or more than 4 hours scheduled a day. And it is zero percent under or equal to 1 hour per day. If we see from the obligations of students for one the semester credit system (SKS) are: (a) 50 minutes of scheduled face to face/regular class with teachers, for example in the form of lectures; (b) 60 minutes of structured academic events which are unscheduled but planned activities by teachers, for example in the form of assignments; and (c) 60 minutes of independent academic activities are activities that must be done by students independently to deepen the preparation or other purposes of an academic task, for example in the form of reading reference books. (FKIP UR Handbook, 2015/2016, page 38). Based on the study load based on the semester credit system (SKS), if it is assumed that the middle of student take 20 credits per semester (20 x 8 semesters = 160 credits), the student must allocate and use the learning time outside the regular class event with the lecturer lecture) of 6.7 hours per day. Meanwhile, based on the research findings, the students only allocate and use the time to study outside regular class (lecture) about 2-3 hours per day. Thus, the student's learning effort is observed from the time allocation aspect (hours outside studying) less than 50% of the ideal time to learn. The time allocation

aspect needs to be well allocated to achieve efficient learning. Ahmad Rohani HM (2010) says that a good teaching is if the teaching process is used enough time and can produce learning outcomes (achievement of instructional goals) more precisely and accurately and optimally. The detailed description of the category of student learning effort seen from the aspects that are measured, it can be presented in the research finding as in table 2 below.

Tabel 2. the category of students learning effort

No.	Measured aspects	category			Total
		A	B	C	
		High	Middle	Low	
1	Use power (Body)	57	40	32	129
2	Use mind (cognitive)	68	48	13	129
3	Use time	14	39	76	129
4	Use learning aids	62	54	13	129
	<b>Average</b>	50,25	45,25	33,5	129
	Percentage (%)	38,95	35,08	25,97	100

The data in table 2 shows that the category of student learning effort spread on high category (A) of 38,95%, middle category (B) is equal to 35,08%; and low category (C) of 25.97%. The next question is how is the description learning outcome (GPA) of students PG-PAUD FKIP Universitas Riau, semesters 3 and 5 in year 2017?

2. Student learning outcomes of PG-PAUD FKIP UR, 2017. Student learning outcomes are cumulative achievement index of students in semesters 3 and 5 in years 2017. Based on the student's CAI (IPK), it can be

obtained a description of IPK students PG PAUD FKIP Study Program of Universitas Riau as seen in the following table.

Table 3. Students Learning Outcomes (CAI/IPK)

No.	Category	Criteria	F	%
1.	Excellent	3.50-4.00	31	24,03
2.	Good	2.75-3.49	97	75,19
3.	Enough	<2.76	1	0,78
	Total		129	100,00

Table 3 shows that most of the students' CAI is in good category (75.19%) and excellent (24.03%). And very low (0.78%) are in the enough category. To get a clearer description about the CAI of students PGPAUD Study Program of FKIP of Universitas Riau, can be seen in the following graph.

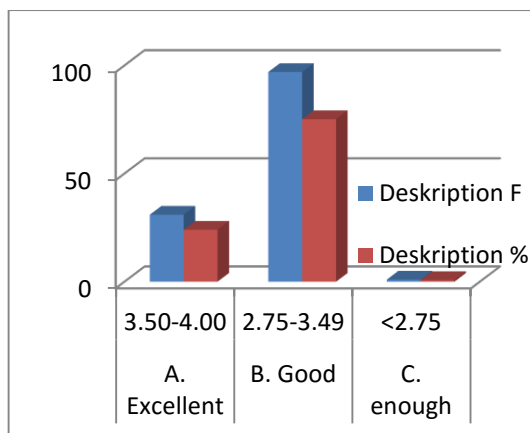


Figure 1: Graph of Student Learning outcome (IPK) of PGPAUD Study Program of FKIP of Universitas Riau, in year 2017

3. The Correlation of Learning effort with Student Learning outcome (IPK) can be seen in table 4 as below.

Table 4. The Correlation of Learning Effort with Student Learning Outcome (CAI/IPK)

N	Learn	Criteria	Learning Effort	Total
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o.	ng Outcome (IPK)	a	Hig h (3)	Mid dle( 2)	Low (1)	
1	Excellent	3.50-4.00	16 18,2	27 26	5 3,7	48
2	Good	2.75-3.49	33 20,4	42 43,4	5 6,2	80
3	Enough	<2.76	0 0.4	1 0.5	0 0.1	1
	Total		49	70	10	129

Based on the calculation result of formula  $X^2$  by using contingency table above, we get calculation number is equal to 9,819. While the numbers in table  $X^2 @ 0.95$ ,  $dk(4) = 9.49$ . When it compared to the number of count  $X^2$  with the number in table  $X^2$  then it can be concluded with the criteria if the number of calculated Chi Square ( $X^2$ ) is higher or equal to the number in the table  $X^2 @ 0.95$  then the learning effort is closely correlated to the learning outcomes (CAI) of student. So, since the number of Chi Square (9,819) is higher than the Chi square in the table @ 0.95 (4) = 9.49, it can be concluded that the student learning effort is closely correlated to the student learning outcomes of PGPAUD Study Program of FKIP of Universitas Riau at Semester 3 and 5 in academic year 2017. It means that students' learning efforts contribute positively to student learning outcomes (CAI). In this study shows student learning effort as high as student learning outcomes (CAI/good and excellent).

### Conclusion

Based on the explanation and discussion above, the writer takes some conclusions as follows: The learning efficiency of students PG PAUD Study Program of FKIP of Universitas Riau, at semester 3 and 5 in academic year 2017 is in high category

(efficient). Student learning effort in general (mostly) is in the high category; Student learning outcomes (CAI/IPK) of students are also generally (mostly) in good and excellent categories. The results shows a close and positive correlation between the learning effort with learning outcomes of students PG-PAUD Study Program of FKIP of Universitas Riau, in year 2017. But, based on the research finding, therefore, students need learn harder, in term of use of physical energy, mind, time, and the use of learning aids optimally. The allocation and use of time to study outside regular class with lecturers needs to be increased from less than 50% of the ideal time (5-7 hours) if the average student take 20 credits per semester. And, Further research needs to be done with focusing on the factors that influence student learning outcomes, so that in can be anticipated the problem of development of professional ability of PAUD teachers in the future.

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