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Expressing the level of curiosity of students studying in college

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ABSTRACT

This research is designed to expose the level of curiosity of students in learning in the aspects of interest, novelty seeking, openness of experience, and exploration. In particular, we will measure the differences in curiosity assessed from the points of semester level and gender. The study involved 234 students in their third, fifth, and seventh semesters in nine study programs at the University. Data was collected from the curiosity questionnaire in learning, consisting of 48 items on the Likert scale with a reliability of 0.886. The results showed the level of curiosity of students in the aspects of interest, novelty seeking, and openness of experience to be in the medium category and in the exploration aspect, in the low category. On the other hand, students in the third semester a had higher curiosity in learning compared to students in semesters five and seven, while studies on the gender aspect did not find substantial differences in students' curiosity in learning.



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Introduction

Curiosity in learning is an action that is very important and useful for the students' social and cognitive development. The development of curiosity can help students regulate themselves in a positive emotional motivational system (Kashdan and Roberts, 2004), learn to solve problems (Shor I, 1992), acquired knowledge and skills (Zuss, M. 2012), find joy and pleasure, and develop their attention (Ainley, 1998; Kashdan dan Roberts, 2002) through the learning process.

Curiosity is a basic component of human nature and is useful for every period of life. Curiosity in learning can be developed through an increasing interest in the object being studied, looking for the novelty of objects, opening the desire to gain experience through deep exploration in order to solve problems (Peterson & Seligman, 2008), and learning what is encountered. The development of curiosity is an important component in achieving educational goals because it is considered as a form of student appreciation for knowledge that is in demand and is a basic effort so that students can learn to take action, learn to live together and learn to be themselves (Jacques Delors, 2013)

Efforts to develop curiosity in the learning process need to be carried out to broaden the horizons of the students and facilitate their activities while undergoing the educational process. Curiosity can be cultivated in a social environment (Bergin, 1999; Engel, 2011; Hidi & Harackiewicz, 2000; Kashdan, 2004; Ritchhart, 2002) by discussing something interesting with others (Thoman, Sansone, and Pasupathi, 2007), having a dialogue about the relationship between theory and practice (Lewis, 2012), participating in group work (Mitchell, 1993), and conducting inquiry-based learning (Zion and Sadeh, 2007), so that it can help students open their minds and think critically in finding truth (Shor, 1992)

Hartini, H. et.all.

The development of curiosity can benefit both students and educators (Graham & Helen, 2011) so it is very necessary to do it at every level of education. However, the phenomenon in the field is that there are still educators who are not skilled in developing the curiosity of students regarding learning so discussions between counselors and teachers/lecturers about their respective roles and contributions are important in an effort to improve students' curiosity in accordance with the expectations (Kecskemeti, 2013). The development of curiosity in learning is still very rare in Indonesia, whereas the results of previous studies have proven that the development of curiosity will encourage individuals to seek new experiences and adventures in getting new things even at risk (Zuckerman (1994), and investigating certain events or objects (Cacioppo, et al. 1996) which can strengthen exploration (Ainley, 1998) in learning.

The development of curiosity can be carried out precisely and in accordance with the needs if the condition of the curiosity of students in learning is known in advance. This study aims to determine the level of curiosity in learning seen from the aspects of interest, novelty seeking, openness of experience, and exploration. Curiosity differences will also be assessed from the aspect of gender and semester level. The data of this study can be used as the basis for the development of teaching programs and guidance so that students' curiosity can be improved, and competencies become optimal.

Method

This research uses quantitative methods. The research subjects were 234 students spread across nine study programs in the Tarbiyah department, including BKI, MPI, PAI, English, Indonesian, PGMI, PIAUD, Mathematics, and PBA. The research instrument used was the curiosity questionnaire in learning. The questionnaire indicators reveal the interest, novelty seeking, openness of experience, and exploration in learning. The questionnaire numbered 48 items using a Likert scale with a reliability level of 0.886. The data were analyzed using a two-way ANOVA SPSS program.

Results and Discussion

The results of processing the data explain that overall, the level of curiosity of students majoring in Tarbiyah IAIN Curup is in the medium category as well as on indicators of interest, novelty seeking, openness of experience, while the level of curiosity of students in learning in the exploration indicator reached a low category. The data description is presented in Table 1:

Descriptive Statistics							
	Ν	Min	Max	Sum	Mean	Std. D	Ideal score
Interest	234	26	54	9172	39.20	5.30	60
Novelty Seeking	234	35	74	11753	50.23	7.11	75
Openness of Experience	234	37	70	11781	50.35	7.15	75
Exploration	234	10	29	4624	19.76	2.99	40
Curiosity	234	119	222	37330	159.53	19.10	240
Valid N (listwise)	234						

Table 1. Student curiosity in learning

If we examine the differences in student curiosity in learning looking at the semester level, based on descriptive statistical data, the third-semester students have higher curiosity levels in learning than students in semesters V and VII, as described in Table 2.

The results of descriptive data on student curiosity statistics in studying at the gender level indicate that female students have higher curiosity levels in learning compared to male students, as described in the following Table 3.



Semester	Mean	Std. Error	95% confidence interval	
			Lower bound	Upper bound
Semester III	161.726	2.788	156.232	167.220
Semester V	158.677	3.505	151.770	165.583
Semester VII	156.083	2.725	150.714	161.452

Table 2. Student curiosity in learning based on semester level

Table 3. Student curiosity by gender

GENDER	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
WOMEN	159.973	1.382	157.249	162.696
MEN	157.685	3.210	151.359	164.010

Student curiosity data in studying at semester level shows that third-semester students have higher curiosity levels than the ones in semesters V and VII. Table 4 below presents the statistical description:

Semester	Gender	Mean	Std. Deviation	Ν
Semester III	Women	1.6552	20.80573	65
	Men	1.5793	17.46850	14
	Total	1.6418	20.36070	79
Semester V	Women	1.5735	19.77426	82
	Men	1.6000	17.18804	8
	Total	1.5759	19.48546	90
Semester VII	Women	1.5704	17.03178	49
	Men	1.5512	12.46796	16
	Total	1.5657	15.95890	65
Total	Women	1.5998	19.77916	196
	Men	1.5718	15.16193	38
	Total	1.5953	19.10467	234

Table 4. Statistical description

After conducting Levene's Test of Equality of Error Variances, it was followed up by conducting a different test using ANOVA as in Table 5.

The F counts on gender aspects amounted to 429 with a significance value of 0.513, higher than 0.05, so it can be claimed that there is no difference in the level of learning curiosity based on gender. The F count on the semester aspect is 1.048 with a significance value of 0.352, higher than 0.05, so it can be claimed that there is no difference in the level of level curiosity based on semester.

The curiosity of students majoring in Tarbiyah IAIN Curup in overall learning is in the medium category which illustrates that students sometimes have curiosity in learning but it tends to decrease so the four aspects of curiosity in learning need to be improved so that students have a high curiosity in learning.

The development of student curiosity in learning does not only hone cognitive abilities alone but, more than that, Reiss (2008) revealed that curiosity is a universal desire for intellectual activity (cognitive needs) to obtain value-based happiness, acquire new skills, and gather and analyze information. The sharpening of curiosity will develop various skills and competencies of students in learning so it needs to be done at every level of education. However, the results of the Trilling and Fadel (2009) study show that high school graduates and students with diplomas and higher education are still less competent in terms



of: (1) oral and written communication, (2) critical thinking and problem solving, (3) work ethics and professionalism, (4) working in a team and collaborate, (5) work in different groups, (6) use technology, and (7) project and leadership management.

Source		Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model		3374.734 ^a	5	674.947	1.884	.098
Intercept		2958961.295	1	2958961.295	8.261	.000
SEMESTER		751.054	2	375.527	1.048	.352
GENDER		153.508	1	153.508	.429	.513
SEMESTER	*	489.660	2	244.830	.684	.506
GENDER						
Error		81667.556	228	358.191		
Total		6040294.000	234			
Corrected Total		85042.291	233			
a. R Squared = .040	(Adjı	usted R Squared = .019)				

Tabel. 5. Tests of Between-Subjects Effects

If further analyzed, the low competency of students at every level of education is caused by many factors. Not mastering learning skills and a lack of curiosity about the materials being studied also influences the quality of students' competencies, so the learning process is not considered an arena to hone self-competency. Treffinger, 1995 in Leasure & Fowler, (2011) explains that various activities in educational institutions are expected to develop students' academic skills and results especially in terms of basic skills and minimum competence. This needs to be done in order to develop student curiosity in learning.

Curiosity is an aspect of intrinsic motivation that has the great potential in improving student learning. The inquiry-based learning approach has the potential to stimulate students' curiosity, which can be applied to almost all academic disciplines (Pluck and Johnson, 2011) so the desire to know more is multidimensional (Engel, 2011) shows that individuals learn what they know and don't know and then use their knowledge to learn more about solving problems they experience (Shor, 1992)

An individual's competence has a feeling and autonomy that are intrinsically connected with the level of curiosity and interest (Deci & Ryan, 2000; Krapp, 2005; Schiefele, 2009). Puzzles can be used as a medium to trigger students' curiosity and emphasis on meaning. Personal values can also maintain students' interest in learning (Kashdan & Fincham, 2004; Mitchell, 1993).

Deci and Ryan (2000) argue that individuals are better able to internalize and integrate activities when made meaningful to them, which, in turn, causes intrinsic motivation and curiosity to create feelings for fate determination (Hidi & Harackiewicz, 2000; Kashdan & Fincham, 2004). To create relevant content, Keller (1987) argues that teachers must utilize student experience, present material values and uses for the future, and allow for satisfaction related to basic needs of autonomy and competence so that the learning process designed should be able to increase curiosity in learning suitable with the semester being taken. The results of Camp, Rodrique, and Olson (1984), Swan & Carmelli (1996) found a correlation of curiosity with age, namely the higher the semester level and the age, the greater the curiosity in learning. However, the research data obtained has not shown an increase but vice versa so this needs to be a concern and concrete actions must be taken in an effort to improve student curiosity in learning.

Conclusion

The curiosity level of students in learning as a whole is in the medium category, as well as on aspects of interest, novelty seeking, and openness of experience. Conditions illustrate that students sometimes have curiosity in learning but that it also tends to decline, while curiosity in learning in the exploration aspect is in the low category so, overall, the four aspects of curiosity in learning need to be improved. The results of the ANOVA calculation also showed that there were no significant differences assessed from the



points of gender and semester level so there is a need of collaboration between teachers and counselors in order for curiosity in learning to grow for students in higher the semester levels.

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