



---

## Discussion method accuracy in Islamic higher education: The influence of gender and teaching duration

Syahraini Tambak<sup>1\*</sup>, Hamzah<sup>1</sup>, M. Yusuf Ahmad<sup>1</sup>, Erma Linda Siregar<sup>1</sup>, Desi Sukenti<sup>2</sup>, Mashitah Sabdin<sup>3</sup>, Ratu Bai Rohimah<sup>4</sup>

<sup>1</sup>Department of Islamic Religion Education, Universitas Islam Riau, Indonesia,

<sup>2</sup>Department of Indonesian Language and Literature Education, Universitas Islam Riau, Indonesia

<sup>3</sup>Department of Management and Humanities, Universiti Teknologi PETRONAS, Malaysia

<sup>4</sup>Universitas Agung Tirtayasa, Banten, Indonesia

\*Corresponding Author: [syahraini\\_tambak@fis.uir.ac.id](mailto:syahraini_tambak@fis.uir.ac.id)

---

### ABSTRACT

Discussion methods are increasingly popular in learning, but in terms of their accuracy, mixed results are reported without clear reasons. This research aims to explore the impact of gender and teaching duration on discussion method accuracy in Islamic higher education. To evaluate the accuracy of the use of the discussion method, lecturer's teaching duration, and gender, a quantitative study with a correlation approach was used. A research project, which deals with the use of discussion methods in lectures using questionnaires, was carried out in two faculties at two universities. Data were collected from 175 lecturers involved in this research. The analysis is differentiated based on the gender and level of teaching duration of lecturers in the competencies being assessed. The results show that the accuracy of the use of the discussion method is low and is related to the gender of the lecturer, that males perceive themselves to be higher in the use of the discussion method than females, and that even using method analysis with methods and implementation in the classroom. Lecturers who teach for more than 30 years tend to have higher accuracy in using the discussion method than those with lesser tenure. The findings of this study have implications for the development of "the use of discussion methods in higher education" and it is necessary to examine the reasons behind this difference and to look for steps to improve the accuracy of the use of the discussion method.

Keywords: Discussion method, Islamic higher education, lecture, discussion method accuracy

---

#### Article history

Received:  
18 December 2021

Revised:  
22 January 2022

Accepted:  
3 April 2022

Published:  
1 June 2022

---

**Citation (APA Style):** Tambak, S., Hamzah, Ahmad, M. Y., Siregar, E. L., Sukenti, D., Sabdin, M., & Rohimah, R. B. (2022). Discussion method accuracy in Islamic higher education: The influence of gender and teaching duration. *Cakrawala Pendidikan: Jurnal Ilmiah Pendidikan*, 41(2), 507-520 <https://doi.org/10.21831/cp.v41i2.40644>

---

### INTRODUCTION

Higher education has shown an increasing tendency towards the student-centered teaching and learning process. In any teacher profession that incorporates the principles of autonomy and self-regulation in its daily functions, people must recognize the need to use learning methods and direct their learning throughout their careers. One of the responsibilities of the lecturer is to teach students to behave like professionals; that is, they must be able to give and receive feedback and develop argumentation skills, and dialogue, to improve their professional competence (Al-Husban, 2020; Safari, Yazdanpanah, Ghafarian, & Yazdanpanah, 2006). One area in which lecturers show their responsibility is in the development of learning, which refers to the lecturers' commitment to developing methods of discussion in learning, especially regarding the development of creative thinking, encouraging the ability of argumentation, the ability to accept criticism, and the development of social attitudes.

The pedagogic competence of individual lecturers in the use of the discussion method

presents a range of advantages (Abdulbaki, et al. 2018; Harding, 2018; Yusuf, Guga, & Ibrahim, 2017; Ramezankhani, Pooresmaeili, & Rakhshandehrou, 2016; Kukur, 2012; Omwirhiren, 2015; Sukenti, & Tambak, 2020; Badger, 2010), which can be summarized as follows. Discussion helps develop pedagogic competencies that are highly valued in the teaching profession, such as a critical attitude towards their work. It increases the involvement of lecturers in their profession and teaching. This method also gives lecturers time to spend on assignments with the development of larger learning methods. Specifically, regarding the development of oral presentation competencies, the discussion method leads to an increase in learning activities, learning with high academic content, confidence in making better presentations, and development of discussion skills (Harding, 2018; Ellis, et al. 2004; Saira, & Hafeez, 2021). Therefore, the use of the discussion method is maintained (Naibaho, 2019; Aghapour, et al. 2015), although the accuracy is less than optimal.

The practical application of the use of the discussion method in the Islamic higher education system is still limited (Safari, et al. 2006), especially when it is used to develop students' critical abilities (Abdulbaki, et al. 2018) because the lecturer thinks the implementation of the discussion method is not accurate enough (Hekmatpou, et al. 2013; Biney, 2018; Alghamdi, 2018; Saira, & Hafeez, 2021). If the discussion method makes students think about themselves differently in several fields of knowledge, relying on their personal decisions on wrong interpretations, problems may arise at the educational and personal levels (Abdulbaki, et al. 2018). Thus, if the accuracy of the discussion method can be guaranteed by comparing it with learning methods from other sources (Abdulbaki, et al. 2018; Brookfield and Freskill, 2005; Welty, 1989), they can contribute to developing quality learning, students' critical attitudes towards their work, stimulating their continued learning in the academic and professional fields. Resources used to calibrate the discussion method include the suitability of the method with the material and its implementation in the classroom (Gall & Gillett, 2010; Dallimore, Hertenstein & Platt, 2004; Hoover, 2015; Boyle & Nicol, 2003; Long, 2020).

Comparison between the suitability of the method with teaching material and the implementation of the discussion method in classroom learning has shown better results in terms of accuracy than between the discussion method and other methods (McAvoy, et al. 2021; Boyle & Nicol, 2003; Abdulbaki, et al. 2018; Hoover, 2015), mostly when global criteria, rather than multidimensional, are used (Nicol & Boyle, 2003; Long, 2020). However, the suitability of the discussion method with teaching material is not without problems. Thus, one problem related to the suitability of the discussion method with teaching material is that the analysis of the accuracy of the chosen discussion method with the material being taught is more complicated than the implementation of the discussion method in classroom learning (Naibaho, 2019; Sutphen & Lange, 2015; Saira, & Hafeez, 2021). Furthermore, the suitability of the discussion method with teaching material tends to be more difficult to analyze than the implementation of the discussion method in the class. Also, students' understanding of the material taught on the selection of methods used is less than optimal (Abdulbaki, et al. 2018; Tambak, et al. 2020). However, because students value positively the suitability of the method with teaching material and the implementation of the method of discussion in classroom learning (Nicol & Boyle, 2003; Boyle & Nicol, 2003), both sources must be considered to develop accuracy in the use of discussion methods in learning.

However, the literature that examined the accuracy of the use of the discussion method did not offer strong results. In studies that support accuracy, the level of accuracy, generally determined using a correlation index, is usually positive, but without getting a Pearson value above 0.6 (Pollock, Hamann & Wilson, 2011). For example, empirical results that show a high degree of accuracy are reported in Nicol & Boyle (2003) and Abdulbaki, et al (2018), while research by Harding (2018), Boyle & Nicol (2003), Brookfield & Freskill (2005) and Dallimore, Hertenstein & Platt (2004) among others, show a low level of accuracy. The literature shows a series of methodological and psychological reasons for disagreement about the accuracy of the use of this discussion method (McAvoy, et al. 2021; Keshavarzi, et al. 2016; Parka, et al. 2015; Tambak, 2021; Reznitskaya, et al. 2001).

These problems indicate the need for a series of preventative measures to increase the accuracy of the successful use of the discussion method. Thus, it is necessary to have a more valid and reliable standard for comparing the use of discussion methods, for example, by using more than one lecturer or combining the lecturer teaching period (Abdulbaki, et al. 2018; Bartholomew & Jones, 2021; Chukwurah, et al. 2020). Various studies have shown that the suitability of the method with teaching material is more accurate than the implementation of the

use of the method of discussion in class (Parka, et al. 2015; Hoover, 2015). This study supports the capacity of lecturers to identify the successful use of good or bad discussion methods, but they also show that they cannot or are reluctant to apply the same standards to their own performance. Second, developing a step-by-step model that is easy to use and reliable with high accuracy raises the standard used to compare the successful use of the discussion method. One possibility is the analysis of the density of the steps in using the method, which is a measuring tool that allows measuring the quality of lecturer contributions in various fields. The accuracy of the steps can also be used to measure the level of competence using the lecturer discussion method. They describe, before carrying out activities, the variables to be assessed and the level of performance or completion for each (Chen, Wu & Wu, 2018; Danner & Musa, 2019; Adib-Hajbaghery & Rafiee, 2016; Ramezankhani, Pooresmaeili & Rakhshandehrou, 2016). Implementation of the accuracy of the steps in using the method in the class reduces the weaknesses of the use of the method and, therefore, leads to a higher level of lecturer success using the discussion method (Mosher, et. al. 2017; Danner & Musa, 2019; Sudirman, 2018). Third, giving lecturers and students training and experience in the use of the discussion method, in this case, the accuracy of the method steps must also contribute to increasing the successful use of the discussion method by those who have long taught (Sukenti, Tambak, & Siregar, 2021; Abdalbaki, et al. 2018; Ndie, et al. 2016). Finally, attention must be paid to the differences between users of the discussion method. This tendency, in turn, results in the successful use of the discussion methods offered by lecturers with the duration of teaching experience as well as men and women.

Based on these considerations, this article aims (1) to analyze the accuracy of the use of the lecturer discussion method, compared with the lecturer's teaching length (teaching duration <10 years; 10-20 years; 21-30 years; and > 30 years); (2) to examine the accuracy of the use of the discussion method is related to the gender of the lecturer; (3) to scrutinize if there is a difference in the accuracy of using different discussion methods.

## **METHOD**

This research employed a quantitative approach with the type of correlation research (Roni, 2020; Scharrer & Ramasubramanian, 2021) to explore the impact of gender and teaching duration on discussion method accuracy in Islamic higher education. The research project was conducted in 2019 in two faculties of various university study programs located at public and private universities located in Riau. Previously, 102 lecturers participated (37 men and 65 women), while 73 lecturers (47 men and 26 women) participated in the latter. This sampling used the Slovin model (Hodge, 2020) with a margin of error of 3% from all respondents at the faculty of teaching and education at both research sites. These two universities were chosen to represent respondents in terms of developing discussion methods from public and private elements as well as Islamic universities in Riau Province. In addition, these two Islamic universities are the largest Islamic universities in Riau Province which have faculties of education.

Experience consists of carrying out learning by using the method of discussion in lectures in class. The use of this discussion method was measured by a questionnaire containing eight criteria that were previously validated (Zheng, 2021; Hodge, 2020; Verano-Tacoronte et al., 2016) with values ( $p < 0.05$  and  $r > 0.30$ ). Each use of the discussion method was measured by lecturers in two universities. The use of the discussion method was given to all lecturers and they responded to the questionnaire statement according to their respective conditions. The reliability of the questionnaire answered by the lecturer was tested through consistency between lecturers using Cronbach's alpha (Zaker & Nosratinia, 2021; García-Ros, 2011; Cortina, 1993; Hodge, 2020) with a reliability value ( $> 0.85$ ). Good internal consistency is found on both campuses for each lecturer.

To assess the accuracy of using the method (first specific goal), graphical analysis was conducted from the coincidence level in the answers provided by the four ranking sources. The graphical analysis is meant to detect differences in the accuracy of the use of the discussion method from the subsample of lecturers with the ability to analyze the suitability of the method with teaching materials and the lecturer with the ability to carry out the steps of the discussion method in class (third specific goal) on each campus. Two-sample equality of means test was

also carried out. To examine the possible relationship between the use of the discussion method and gender (the second specific goal), the data were classified into the gender of the lecturer, and basic descriptive statistics were analyzed for both programs; the Equivalence test means carried out. Finally, linear correlations between users of the discussion method were analyzed with simple linear correlation coefficients, and to determine other types of monotonic relationships, Spearman's rank correlation coefficients were also calculated.

The placement of lecturers in one group or another is determined by establishing confidence intervals for individual groups of programs and relevant genders. Lecturers who are outside the interval are constructed as an average score of plus/minus standard deviation for their reference group considered the use of the best/worst discussion method. Finally, the multiple linear regression model to discuss the differences in the use of the discussion method between lecturers who have taught <10 years, 10-20 years, 21-30 years, and >30 years were studied.

## **FINDING AND DISCUSSIONS**

### **Finding**

The descriptive statistics in Table 1 show that lecturers who teach between 10-20 years and 21-30 years commonly provide responses using the discussion method as a middle position. However, those with less experience have a wider range of responses, because the difference between the minimum and maximum lecturers is greater at both universities than the range of use of the discussion method provided by lecturers who have taught for less than 10 years. In terms of the use of the discussion method of lecturers with more than 30 years of experience, the level is always above the use of the minimum method of discussion conducted by other groups of lecturers. The same is true for maximum responses, which shows that the use of the discussion method by lecturers with over 30 years of experience is systematically higher.

The ANOVA test and the Tukey test in table 2 revealed that there were no significant differences mean in the accuracy of the use of the discussion method among lecturers from the three groups, which were statistically significant in both degrees, although they were more prominent in the second research site. In fact, lecturers who teach <10 years, lecturers who teach 10-20 years, and lecturers who teach 21-30 years, can be considered homogeneous groups according to the scores given at all three levels.

**Table 1. Descriptive statistics of the total score on the presentations by degree**

		Faculty of Tarbiyah Teacher Training UIN Sultan Syarif Kasim	Faculty of Teacher Training and Education Universitas Islam Riau
Min. – Max.	Lecture teaching < 10 Years	12-29	11-29
	Lecture teaching 10-20 Years	17-27	18-26
	Lecture teaching 21-30 Years	18-30	18-30
	Lecture teaching > 30 Years	19-35	19-36
Mean	Lecture teaching < 10 Years	25.80	25.98
	Lecture teaching 10-20 Years	25.91	25.61
	Lecture teaching 21-30 Years	26.71	25.35
	Lecture teaching > 30 Years	28.25	27.70
Standard Deviation	Lecture teaching < 10 Years	29.342	29.242
	Lecture teaching 10-20 Years	34.860	33.850
	Lecture teaching 21-30 Years	34.783	34.893
	Lecture teaching > 30 Years	37.825	36.785

*Note: Mean difference by the source of assessment statistically significant at 1%*

Categorizing data based on different measures, we analyzed whether the use of the distinguished discussion method was maintained, regardless of the lecturers' gender. On average, lecturers who teach between 10-20 years score skills used the discussion method more frequently than those who teach less than 10 years, and the group lecturers with the longest

tenure employed it most frequently, regardless of their gender. In addition, the self-perception of teachers who have been teaching for over 30 years about these skills, in general, is higher than the other two groups, and this is more noticeable among males than females. The difference is also greater in the study of the first site compared to the second, presumably because of the greater proportion of male lecturers at the former.

**Table 2. Descriptive statistics of the implementation of the discussion method, by the university program and lecturer’s gender**

		Site 1		Site 2	
		Man	Woman	Man	Woman
Number of lecturers		37	65	47	26
Min. – Max.	Lecture teaching < 10 Years	14-29	Dec-28	14-25	Nov-29
	Lecture teaching 10-20 Years	17-27	17-26	19-25	18-26
	Lecture teaching 21-30 Years	18-30	18-30	18-30	18-30
	Lecture teaching > 30 Years	19-35	19-35	19-36	19-35
Mean	Lecture teaching < 10 Years	24.80	22.70	19.81	22.50
	Lecture teaching 10-20 Years	24.91	23.80	22.92	23.21
	Lecture teaching 21-30 Years	25.71	24.62	24.73	24.01
	Lecture teaching > 30 Years	27.25	25.17	26.25	25.34
Standard Deviation	Lecture teaching < 10 Years	24.636	19.632	24.631	20.671
	Lecture teaching 10-20 Years	25.630	20.732	26.701	21.730
	Lecture teaching 21-30 Years	26.571	21.932	27.198	22.987
	Lecture teaching > 30 Years	27.176	22.187	28.821	23.765

*Note: Mean difference by gender of the lecture statistically significant at 1%*

The table above shows that in the first site, the rank of lecturers who teach under 10 years does not differ significantly by sex, and length of tenure. Even so, the distinction by lecturer gender is relevant because it becomes clear that, on average in both universities, lecturers who teach over 30 years are systematically higher than women, and this difference is statistically significant. With respect to the incoming data, there seems to be some agreement between the rank of lecturers who teach less than 10 years, lecturers who teach between 10-20 years and 21-30 years, but not between responses and lecturers with the most experience. To further examine this relationship, correlation studies are carried out and appear in Table 3.

**Table 3. Linear correlation among sources of discussion method by gender and university program**

		Men				Women			
Lecture teaching		< 10 years	10-20 years	21-30 years	> 30 years	< 10 years	10-20 years	21-30 years	> 30 years
Faculty of Tarbiyah and Teacher Training UIN Sultan Syarif Kasim	< 10 years	1				1			
	10-20 years	0.83	1			0.83	1		
	21-30 years	0.97	0.98	1		0.96	0.93	1	
	> 30 years	0.23	0.24	0.25	1	-0.09	0.33	0.34	1
Faculty of Teacher Training and Education Universitas Islam Riau	< 10 years	1				1			
	10-20 years	0.72	1			0.78	1		
	21-30 years	0.87	0.92	1		0.88	0.94	1	
	> 30 years	0.03	0.10	0.20	1	0.43	0.47	0.49	1

*Note: Correlation coefficient statistically significant at 1%*

A high linear correlation can be seen between the rank of lecturers who teach between 21-30 years, those who teach between 10-20, and those with the least experienced in the first site

(0.97 for men and women) and in the second site (0.87 for man and 0.88 for woman). However, the linear correlation between the use of the discussion method of lecturers teaching over 30 years and other sources is only statistically significant for a woman in both sites, although at a significant level lower (0.43 with lecturers teaching less than 10 years, lecturers teaching between 1-20 years 0.47 and 0.49 with lecturers teaching between 21-30 years).

Because there is almost no linear correlation detected between the use of the discussion method by lecturers in the three experience-based groups, non-parametric actions are then considered. So, we calculated Spearman's rho to examine all types of other monotonous relationships, obtaining similar results (Table 4).

**Table 4. Rank correlation among sources of discussion method by gender and university**

		Men				Women			
		< 10 years	10-20 years	21-30 years	> 30 years	< 10 years	10-20 years	21-30 years	> 30 years
1st site	< 10 years	1				1			
	10-20 years	0.76	1			0.80	1		
	21-30 years	0.79	0.80	1		0.82	0.83	1	
	> 30 years	0.16	0.17	0.18	1	-0.12	0.24	0.25	1
2nd site	< 10 years	1				1			
	10-20 years	0.84	1			0.78	1		
	21-30 years	0.85	0.86	1		0.79	0.84	1	
	> 30 years	-0.01	0.15	0.17	1	0.40	0.43	0.44	1

*Note: Correlation coefficient statistically significant at 1%*

Analysis of the behavior of the use of the discussion method of lecturers who have taught for more than 30 years with competency analysis of the accuracy of the methods and the implementation of methods in the class better/worse according to lecturers who have taught less than 10 years based on degrees and, for the first and second sites, based on gender. The sample of the former, unlike the sample of the latter, combines both sexes in each circumstance, because there is no statistically significant difference based on gender.

The use of discussion methods from lecturers who conduct the discussion method with the least experience presents a greater difference between the four categories of lecturer teaching length using the discussion method in the two sites. In contrast, for lecturers with high mastery of the method of discussion with material, there is a greater consensus among lecturers using discussion teaching methods. On the other hand, the behavior of lecturers in the three tenure-based groups does not show the same tendency. Whereas the use of discussion methods with the implementation of methods in the class is low, lecturers with the least experience could not outperform the two other groups with more experience.

The multiple regression model that explores the determinants of differences between the users of the discussion method and the long duration of teaching revealed that male lecturers from the second site are more competent in using the discussion method according to the material and frequency of using it averaged -1.97 points higher than the lecturers with the least tenure/experience (Table 5).

No significant differences were detected between the teacher's long tenure and their use of the discussion method. Conversely, the level of competence felt by lecturers who have taught for more than 30 years does have an influence. In fact, apart from lecturers at two universities and gender, lecturers with low competency levels present a difference of -9.14 points more than lecturers with high competency levels. This difference decreases to -3.24 points for those who have an intermediate level compared to those who have a high level of competence.

**Table 5. Multiple linear regression**

	Coefficient	
Constant	-1.97*	(-1.98)
Site 1		
Site 2	1.07	(1.35)
Gender (Ref. Man)	3.87**	(5.08)
Women		
The accuracy of the use of the discussion method according to the material and implementation (Ref. High)		
Medium	-9.14**	(-9.05)
Low	-3.23**	(-4.20)

Note 1: Response variable = Score given by lecture

Note 2: \*\* = Significant at 1%; \* = Significant at 10%

Note 3: t-values between brackets

## Discussions

This study focuses on the use of the discussion method and, more specifically, on the lecturers' realistic ranking of their own competencies, in this case, the skills of using the method in lectures. The literature review conducted shows that research on the accuracy of the use of the discussion method offers inconclusive and less robust results (Al-Husban, 2020; Rizka, 2017; Xue, et al. 2021; Eutsler, 2018; Tambak, & Sukenti, 2020; Monteiro, et al. 2020). There are studies that obtain high accuracy in the use of discussion methods (Abdulbaki, et al. 2018; Du, 2018; Huy, et al. 2021), while others (Jianbing, et al. 2021; Bogнар, Sablić and Skugor, 2019; Parker and Hess, 2001; Du, 2018; Saira, & Hafeez, 2021) report a tendency to use excessive discussion methods. Therefore, given that lecturers' academic and professional progress depends on making use of quality discussion methods that are not biased, this study follows the main recommendations found in the literature to evaluate appropriately the accuracy of the use of this method and analyze the results by considering aspects that may influence them, such as the homogeneity of the criteria for using the discussion method (analysis of the material with the method and implementation in class), and the difference between the users of the discussion method (ie, gender, performance on the competencies analyzed).

The results show that, for the sample used, the use of the discussion method is not accurate, which is in line with the studies of Lehner (2018), Lyle (2008), and Fisher (2007). Although lecturers from the three tenure-based groups score the same way, they usually judge the use of their own discussion methods, as the same method. Several arguments can be used to explain this situation. First, the use of the discussion method can be influenced by the student's final understanding of the lecture, resulting in overrating compared to the source of other lecturer method use, and an analysis of the use of the method ineffectively. The lack of competency habits using the discussion method and the fact that the lecturer did not participate in identifying the steps of the method are other possible explanations. Finally, it coincides with the conclusion of Abdulbaki, et al. (2018) and Keshavarzi, et al. (2016), the difference between the use of lecturer discussion methods may be due to the experience of lecturers who teach longer, which will be greater in analyzing the suitability of the material with the method and the accuracy of the use of discussion methods in the class. However, it must be remembered that lecturers with 21-30 years of experience are the most accurate in the use of the discussion method in learning.

Regarding differences between lecturers, the results revealed that the accuracy of the use of discussion methods was partially related to gender. Although the use of discussion methods of lecturers who teach less than 10 years, lecturers who teach 10-20 years, lecturers who teach 20-30 years, and lecturers who teach more than 30 years are oriented in the same direction (within the first site, the two groups found that man showed more analytical skills using the method, whereas in the second site were a woman). Competence in the use of the discussion method is not homogeneous (coinciding in the first site, but not in the second). In general, and

irrespective of the major, men present higher scores on the use of discussion methods than a woman. In addition, no significant relationship was detected between the use of the discussion method of lecturers from the three different lengths of tenure, except in the case of women in the second site, although in this latter case the level of agreement was lower than that found between lecturers with shorter tenure. It is important to examine the reasons for this behavior shown by male speakers, who systematically score higher than those given by the other two sites, despite data taken from two different universities.

Not all lecturers behave in the same way when using the discussion method, the findings indicate a different behavioral pattern when dividing the sample according to the lecturer's teaching duration. It seems that the analysis of the use of the method allows the combination of different competencies including oracy skills (Chukwurah, et al. 2020; Danner and Musa, 2019; Tambak, Ahmad, & Sukenti, 2020). In the case of the analysis of method suitability with the material and the worst implementation in the classroom from the perspective of lecturers who have taught for more than 30 years, the use of their discussion method is systematically higher than with lesser experience. Apart from the analysis of the discussion method used, lecturers with the ability to implement the method of discussion synchronize the use of their discussion method by rating themselves highly. This difference is even greater in males than females when those with high analytical discussion methods perceive the use of their own methods. The results for lecturers at the second site deserve special attention: male lecturers with longer tenure tend to give themselves the perception of using a higher discussion method than those with lesser tenure. Meanwhile, female lecturers tend to underestimate themselves which may indicate further socio-cultural factors

The development of discussion methods in the two sites has a huge impact on the development of students' higher-order thinking. This is because the use of the discussion method followed by students in lectures raises thinking ideas to be communicated and the strength of argumentation among students regarding the material studied in lectures (Yaqin, 2021; Bartholomew & Jones, 2021; Chukwurah, et al. 2020; Hamzah, et al. 2020). Thus, lecturers are required to have qualified and professional teaching experience, which may be measured by the length of tenure and possession of certification. Various studies have revealed that lecturers who have been certified for a long time have the ability and skills to use teaching methods compared to non-certified and newly certified compatriots. Lecturers will be better able to develop discussion methods both at the level of mastery of method steps, mastery of the material, implementation in lectures, evaluation, and follow-up of their use in lectures (Ying, 2020; Ugwu, Jatau, & Gwamna, 2020). This mastery contributes to developing students' higher-order thinking skills, achievement motivation (Hikmawati, Ayub, & Sahidu, 2021; Guo, et al. 2020), students' effective arguments in scientific communication, and also an appropriate thinking paradigm.

The accuracy of the use of the discussion method is very urgent to be mastered by all lecturers at the university. The findings of this study reveal that the accuracy of the use of the discussion method can only be performed by lecturers who have high teaching skills with proven certification experience. Lecturers who have been certified can show that they have professional skills in using and developing discussion methods in lectures (McAvoy, et al. 2021; Ugwu, Jatau, & Gwamna, 2020). Lecturers who can apply the discussion method in lower grades combine the use of their discussion method with high self-esteem. Self-assessment in the achievement of accuracy in using the discussion method is crucial for developing students' abilities in creative thinking and interactive communication in expressing ideas in the learning environment (Zhuang, Ren & Liu, 2021; Renfors, 2021). The length of time lecturers teach shows their abilities and various experiences, which have an impact on the quality of the use and implementation of discussion methods in lectures (Bartholomew & Jones, 2021; Chukwurah, et al. 2020). Thus, it is necessary for all lecturers to gain more and different experiences in teaching so that they can further improve their skills in using and implementing discussion methods to help students learn.

In the light of the findings, the combination of lecturer teaching time in using the discussion method may have positive prospects (Abdulbaki, et al. 2018; Mosher, et al. 2017;



Bartholomew & Jones, 2021; Chukwurah, et al. 2020; Danner and Musa, 2019; Garside, 1996). An important part of the literature considers the use of the lecturer discussion method which has long been very useful in teaching, due to its positive influence on the understanding of student learning materials. The discussion method is an effective teaching method that allows lecturers to incorporate various aspects of their learning, reflect on their achievements, and examine the implications for their future training. Therefore, the most useful aspect of using the discussion method lies in the dimensions of the application of its use in the classroom. This can enhance skills and abilities (Dos Santos, 2020; Alexander, 2018; Liu & Wang, 2019; Guan-yu. & Bo-lan, 2017; Tümen Akyildiz, 2020), including the capacity for lifelong learning, beyond the strict academic sphere (Reznitskaya & Gregory, 2013; Tambak, Amril, & Sukenti, 2021; Boyd & Markarian, 2011; Buhari, 2019). The current study shows that lecturers who teach between 21-30 years are likely to be more accurate in their use of the discussion method than two other tenure-based groups. This may indicate the golden period of teaching in which stronger teacher involvement can be achieved. However, it must be noted that methods can be manipulated to benefit or jeopardize the teaching experience of certain lecturers, regardless of their actual performance. Thus, it requires more careful and appropriate measures to state a stronger claim, in this respect.

## **CONCLUSION**

We conclude that the use of the discussion method by lecturers with more than 30 years of is less accurate than those who have teaching experience of between 20-30 years. The first group of lecturers tends to overestimate the ability to use their discussion methods. However, it is important to show that there is a significant relationship between gender and the use of the discussion method among lecturers who teach for more than 30 years: the use of discussion methods for male lecturers who teach for more than 30 years is less accurate than their female compatriots, in the three different groups of lecturers. It is necessary to examine the reasons behind this difference and to look for steps to improve the accuracy of the use of the discussion method which is beyond the scope of the current study. To develop lecturer competence in using accurate and realistic discussion methods, a series of recommendations can be followed: First, it is necessary to train lecturers in using the discussion method. Second, allow them to experience teaching using discussion by analyzing the suitability of the material and method (Reznitskaya, et. al. 2009; Buhari, 2019; Keshavarzi, et al. 2016). Third, involve them in designing the scale of the discussion method assessment (Garside, 1996; Sudirman, 2018) to increase their commitment to the approach.

## **ACKNOWLEDGMENT**

We thank the Institute of Research and Community Service at the Universitas Islam Riau for funding this research. Hopefully, this work can be a trigger to lead to better research in the future.

## **REFERENCES**

- Abdulbaki, K., Suhaimi, M., Alsaqqaf, A., & Jawad, W. (2018). The Use of the Discussion Method at University: Enhancement of Teaching and Learning. *International Journal of Higher Education*, 7(6), 118-128.
- Adib-Hajbaghery, M., & Rafiee, S. (2016). Comparing the Effectiveness of Group Discussion and Lecture Methods on the learning of medical sciences students: A Review Study. *Iranian Journal of Medical Education*, 16(1), 53-62.
- Aghapour, S. A., Vakili, M. A., Karbasi, M., & Badeli, R. (2015). Comparison of the effect of student-based group discussion and lecture methods teaching on midwifery student's learning level. *Scientific Journal of Education Strategies in Medical Sciences*, 8(5), 281-286.
- Alexander, R. (2018). Developing dialogic teaching: genesis, process, trial. *Research Papers in Education*, 33(5), 561-598.

- Alghamdi, S. A. M. (2018). Comparison between traditional teaching method and discussion style to teach computer science courses and the impact of using discussion technique on the students marks. *International Journal of Engineering and Computer Science*, 7(8), 24181-24186.
- Al-Husban, N. A. (2020). Critical Thinking Skills in Asynchronous Discussion Forums: A Case Study. *International Journal of Technology in Education*, 3(2), 82-91.
- Badger, J. (2010). Classification and framing in the case method: discussion leaders' questions. *Journal of Further and Higher Education*, 34(4), 503-518.
- Bartholomew, S. R., & Jones, M. D. (2021). A systematized review of research with adaptive comparative judgment (ACJ) in higher education. *International Journal of Technology and Design Education*, 1-32.
- Biney, I. K. (2018). Improving teaching and learning in higher education institutions: Is the discussion method the answer? *Journal of Educational Studies, Trends, and Practices*, 8(2), 235-247.
- Bognar B., Sablić M. & Škugor A. (2019). Flipped Learning and Online Discussion in Higher Education Teaching. In: Daniela L. (eds) *Didactics of Smart Pedagogy*. Springer, Cham.
- Boyd, M. P., and Markarian, W. C. (2011). Dialogic teaching: talk in service of a dialogic stance. *Language and Education*, 25(6), 515-534.
- Boyle, J. T. & Nicol, D. J. (2003). Using classroom communication systems to support interaction and discussion in large class settings. *Research in Learning Technology*, 11(3), 43-57.
- Brookfield, S.D. & Freskill, S. (2005). *Discussion as a Way of Teaching: Tools and Techniques for Democratic Classrooms*. San Fransisco: John Wiley & Sons.
- Buhari, B. (2019). Practicing discussion in the form of a pyramid to improve students' speaking performance and classroom interaction. *Journal of Languages and Language Teaching*, 7(2), 314-234.
- Chen, C., Wu, M. & Wu, T. (2018). Discussion on the Teaching and Learning Innovation of Higher-Order Thinking. In: Wu TT., Huang YM., Shadiev R., Lin L., Starčić A. (eds). *Innovative Technologies and Learning*. ICITL 2018. Lecture Notes in Computer Science, vol 11003. Springer, Cham.
- Chukwurah, L. N., Abbah, O. I., Iweama, C. N., Ogugua, J. E., & Ameh, J. (2020). Students' Achievement in Physical and Health Education: Effect of Discussion Teaching Method. *Int. J. Hum. Mov. Sport. Sci*, 8(3), 86-90.
- Cortina, J. M. (1993). What is coefficient alpha-An examination of theory and applications? *Journal of Applied Psychology*, 78(1), 98-104.
- Dallimore, E. J., Hertenstein, J. H. & Platt, M. B. (2004). Classroom participation and discussion effectiveness: student-generated strategies. *Communication Education*, 53(1), 134-156.
- Danner, R. B. & Musa, R. J. (2019). Evaluation of Methods Teachers Use in Teaching Shakespearean Drama in Senior Secondary Schools in Edo State. *Journal of Teaching and Teacher Education*, 7(2), 324-338.
- Dos Santos, L. M. (2020). The Discussion of Communicative Language Teaching Approach in Language Classrooms. *Journal of Education and e-Learning Research*, 7(2), 104-109.
- Du, Y. (2018). Discussion on Flipped Classroom Teaching Mode in College English Teaching. *English Language Teaching*, 11(11), 92-97.
- Ellis, R.A., Calvo, R., Levy, D., & Tan, K. (2004) Learning through discussions. *Higher Education Research & Development*, 23(1): 73-93.
- Eutsler, L. (2018). Blended Literature Discussions Increase Preservice Teachers' Enthusiasm for Teaching Reading. *Journal of Literacy and Technology*, 19(2),128-155.
- Fisher, R. (2007). Dialogic teaching: developing thinking and metacognition through philosophical discussion. *Early Child Development and Care*, 77(6), 615-631.
- Gall, M.D. and Gillett, M. (2010). The discussion method in classroom teaching. *Theory Into Practice*, 19(2), 98-103.
- García-Ros, R. (2011). Analysis and validation of a rubric to assess oral presentation skills in

- university contexts. *Electronic Journal of Research in Educational Psychology*, 9(3), 1043-1062.
- Garside, C. (1996). Look who's talking: A comparison of lecture and group discussion teaching strategies in developing critical thinking skills. *Communication Education*, 45(3), 212-227.
- Guan-yu, G. & Bo-lan, Z. (2017). The Analysis on the Path of Improving the Effectiveness of Group Discussion Method in Large Ideological and Political Theory Courses—A Case Study of Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics Teaching. *Education Teaching Forum*, 32(1), 45-61.
- Guo, P., Saab, N., Post, L. S., & Admiraal, W. (2020). A review of project-based learning in higher education: Student outcomes and measures. *International Journal of Educational Research*, 102, 101586.
- Hamzah, Sukenti, D., Tambak, S., & Tanjung, W. U. (2020). Overcoming self-confidence of Islamic religious education students: The influence of personal learning model. *Journal of Education and Learning (EduLearn)*, 14(4), 582-589.
- Harding, L. M. (2018). Keeping goliath on his toes: a case-discussion method for increasing engagement and individual accountability in large classes. *Journal Marketing Education Review*, 28(2), 131-135.
- Hekmatpou, D., Seraji, M., Ghaderi, T., Ghahremani, M. & Naderi, M. (2013). Comparison of Group Discussion and Lecture Method in Students' Learning and Satisfaction of Life Instructions Unit. *Qom University Medical Science Journal*, 7(1), 10-16.
- Hikmawati, H., Ayub, S., & Sahidu, H. (2021). The Effect of the Discussion Method of Video Analysis of Physics Learning on High Level Thinking Skills of Students. *Jurnal Ilmiah Profesi Pendidikan*, 6(1), 74-80.
- Hodge, S. R. (2020). Quantitative research. In *Routledge Handbook of Adapted Physical Education* (pp. 147-162). Routledge.
- Hoover, K. H. (2015). Teaching Methods of Teaching by Demonstration and Application. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 33(2), 90-101.
- Huy, D. T. N., Hang, N. T., Trang, P. T. H., & Ngu, D. T. (2021). Discussion on Case Teaching Method in a Risk Management Case Study with Econometric Model at Vietnam Listed Banks—Issues Of Economic Education for Students. *Review of International Geographical Education Online*, 11(5), 2957-2966.
- Jianbing, Z., Haiying, W., Yutian, H., Haobo, W., Detao, K., & Qian, W. (2021). Discussion on Case Teaching Method of Mechanical Majors in Petroleum Colleges Under New Situation. *Science Journal of Education*, 9(2), 63.
- Keshavarzi, Z., Akbari, H., Forouzanian, S. & Sharifian, E. (2016). Comparison the Students Satisfaction of Traditional and Integrated Teaching Method in Physiology Course. *Scientific Journal of Education Strategy Medical Sciences*, 8(6), 21-27.
- Kukuru, J. D. (2012). Encouraging Representation and Involvement of Learners on Discussion Method's Features towards Ensuring Effective Teaching. *Journal of Education, Society and Behavioural Science*, 2(3), 271-289.
- Larson, B. E. (2000). Classroom discussion: a method of instruction and a curriculum outcome. *Teaching and Teacher Education*, 16(5), 661-677.
- Lehner, B. (2018). Work discussion in large groups: on modifying the teaching and learning method for universities of applied sciences in Austria. *International Journal of Infant Observation and Its Applications*, 21(2), 232-240.
- Liu, Y. & Wang, X. (2019). Discussion on the Teaching Reform of Circuit Experiment Course. *Proceedings of the 2019 5th International Conference on Social Science and Higher Education (ICSSHE 2019)*. Advances in Social Science, Education and Humanities Research. Atlantis Press. vol. 336. 176-179.
- Lutfauziah, A., Al-Muhdhar, M. H. I., Suhadi, S. & Rohman, F. (2020). The learning methods of problem solving skills in Islamic boarding school: Discussion, exercise, and modeling. *Jurnal Pendidikan Sains dan Sains Murni*, 7(1), 1-19.
- Long, R. (2020). Dynamic Classroom Dialogue: Can Students Be Engaged Beyond Discussion?. *Journal of Higher Education Theory and Practice*, 20(3), 85-92.

- Lyle, S. (2008). Dialogic Teaching: Discussing Theoretical Contexts and Reviewing Evidence from Classroom Practice. *Language and Education, 22*(3), 222-240.
- McAvoy, P., Hunt, T., Culbertson, M. J., McCleary, K. S., DeMeuse, R. J., & Hess, D. E. (2021). Measuring student discussion engagement in the college classroom: a scale validation study. *Studies in Higher Education, 1*-15.
- Monteiro, S., Almeida, L., Gomes, C., & Sinval, J. (2020). Employability profiles of higher education graduates: a person-oriented approach. *Studies in higher education, 1*-14.
- Mosher, J., Gjerde, C. L., Wilhelm, M., Srinivasan, S. & Hagen, S. (2017). Interactive discussion versus lecture for learning and retention by medical students. *Focus on Health Professional Education: A Multi-disciplinary Journal, 18*(1), 16-26.
- Naibaho, L. (2019). The integration of group discussion method using audio visual learning media toward students' learning achievement on listening. *International Journal of Research-Granthaalayah, 7*(8), 438-445.
- Ndie, E. C., Eze, A., Mbah, C. & Uwa, A. (2016). Evaluation of the Effects of Discussion Groups As Learning Method On The Test Performance of Student Nurses. *Journal of Educational Research and Review, 4*(4), 42-44.
- Nicol, D. J. & Boyle, J. T. (2003). Peer Instruction versus Class-wide Discussion in Large Classes: A comparison of two interaction methods in the wired classroom. *Studies in Higher Education, 28*(4), 457-473.
- Omwirhiren, E. M. (2015). Enhancing Academic Achievement and Retention in Senior Secondary School Chemistry through Discussion and Lecture Methods: A Case Study of Some Selected Secondary Schools in Gboko, Benue State, Nigeria. *Journal of Education and Practice, 6*(2), 155-161.
- Parka, J. H., Schallert, D. L., Sanders, A. J. Z., Williams, K. M., Seo, E., Yu, L. T., Vogler, J. S., Song, K., Williamson, Z. H. & Knox, M. C. (2015). Does it matter if the teacher is there?: A teacher's contribution to emerging patterns of interactions in online classroom discussions. *Computers & Education, 82*(2), 315-328.
- Parker, W. C. & Hess, D. (2001). Teaching with and for discussion. *Teaching and Teacher Education, 17*(3), 273-289.
- Pollock, P. H., Hamann, K. & Wilson, B. M. (2011). Learning Through Discussions: Comparing the Benefits of Small-Group and Large-Class Settings. *Journal of Political Science Education, 7*(1), 48-64.
- Ramezankhani, A., Pooresmaeili, A. & Rakhshandehrou, S. (2016). The Effect of group discussion method Educational on Knowledge, Attitude and Preventive Behaviors of high blood pressure in women 20-49 years old Islamshahr Cit. *Razi Journal of Medical Sciences, 24*(5), 11-19.
- Renfors, S. M. (2021). Internationalization of the Curriculum in finnish higher education: understanding lecturers' experiences. *Journal of Studies in International Education, 25*(1), 66-82.
- Reznitskaya, A. & Gregory, M. (2013). Student Thought and Classroom Language: Examining the Mechanisms of Change in Dialogic Teaching. *Educational Psychologist, 48*(2), 114-133.
- Reznitskaya, A., Anderson, R. C., McNurlen, B., Nguyen-Jahiel, K., Archodidou, A. & Kim, S. (2001). Influence of Oral Discussion on Written Argument. *Discourse Processes, 32*(2), 155-175.
- Reznitskaya, A., Kuo, L., Clark, A.M., Miller, B., Jadallah, M., Anderson, R. C. & Nguyen-Jahiel, K. (2009). Collaborative reasoning: a dialogic approach to group discussions. *Cambridge Journal of Education, 39*(1), 29-48.
- Rizka, A. (2017). Improving listening and speaking skills by using animation videos and discussion method. *Pedagogy: Journal of English Language Teaching, 2*(1), 30-36.
- Roni, S. M., Merga, M. K., & Morris, J. E. (2020). *Conducting quantitative research in education*. Springer.
- Safari, M., Yazdanpanah, B., Ghafarian, H. R. & Yazdanpanah, S. (2006). Comparing the effect of lecture and discussion methods on students` learning and satisfaction. *Iranian Journal of*

- Medical Education*, 6(1), 59-64.
- Saira, N. Z., & Hafeez, M. (2021). A Critical Review on Discussion and Traditional Teaching Methods. *Psychology and Education Journal*, 58(1), 1871-1886.
- Scharrer, E., & Ramasubramanian, S. (2021). *Quantitative Research Methods in Communication: The Power of Numbers for Social Justice*. Routledge.
- Sudirman, A. (2018). The Influence of Teaching Tenses through Group Discussion Method towards Student's Achievement In Tenses Mastery. *Journal of English Education Studies*, 1(2), 108-117.
- Sukenti, D., & Tambak, S. (2020). Developing Indonesian Language Learning Assessments: Strengthening the Personal Competence and Islamic Psychosocial of Teachers. *International Journal of Evaluation and Research in Education*, 9(4), 1079-1087. <http://doi.org/10.11591/ijere.v9i4.20677>.
- Sukenti, D., Tambak, S., & Siregar, E. (2021). Learning Assessment for Madrasah Teacher: Strengthening Islamic Psychosocial and Emotional Intelligence. *AL-ISHLAH: Jurnal Pendidikan*, 13(1), 725-740. <https://doi.org/10.35445/alishlah.v13i1.552>.
- Sutphen, M. & Lange, T. (2015). What is formation? A conceptual discussion. *Higher Education Research & Development*, 34(2), 411-419.
- Tambak, S. (2021). The Method of Counteracting Radicalism in Schools: Tracing the Role of Islamic Religious Education Teachers in Learning. *MIQOT: Jurnal Ilmu-ilmu Keislaman*, 45(1), 104-126. <http://dx.doi.org/10.30821/miqot.v45i1.761>.
- Tambak, S., & Sukenti, D. (2020). Strengthening Islamic Behavior and Islamic Psychosocial in Developing Professional Madrasah Teachers. *Jurnal Cakrawala Pendidikan*, 39(1), 65-78. <https://doi.org/10.21831/cp.v39i1.26001>.
- Tambak, S., Ahmad, M. Y., & Sukenti, D. (2020). Strengthening Emotional Intelligence in Developing the Madrasah Teachers' Professionalism (Penguatan Kecerdasan Emosional dalam Mengembangkan Profesionalisme Guru Madrasah). *Akademika*, 90(2), 27-38. <https://doi.org/10.17576/akad-2020-9002-03>.
- Tambak, S., Amril, A., & Sukenti, D. (2021). Islamic Teacher Development: Constructing Islamic Professional Teachers Based on The Khalifah Concept. *Nazhruna: Jurnal Pendidikan Islam*, 4(1), 117-135. <https://doi.org/10.31538/nzh.v4i1.1055>.
- Tambak, S., Ahmad, M., Sukenti, D., & Ghani, A. R. B. A. (2020). Profesionalisme Guru Madrasah: Internalisasi Nilai Islam dalam Mengembangkan Akhlak Aktual Siswa. *Jurnal Pendidikan Agama Islam Al-Thariqah*, 5(2), 79-96. [https://doi.org/10.25299/al-thariqah.2020.vol5\(2\).5885](https://doi.org/10.25299/al-thariqah.2020.vol5(2).5885).
- Tümen Akyildiz, S. (2020). College Students' Views on the Pandemic Distance Education: A Focus Group Discussion. *International Journal of Technology in Education and Science*, 4(4), 322-334.
- Ugwu, L., Jatau, A., & Gwamna, S. K. (2020). Impact of discussion method on performance and retention in biology among senior secondary students in Katsina Education Zone, Katsina State, Nigeria. *International Journal of Multidisciplinary and Current Educational Research*, 2(6), 76-83.
- Verano-Tacoronte, D., González-Betancor, S. M. & Bolívar-Cruz, A., et al. (2016). Valoración de la competencia de comunicación oral de estudiantes universitarios a través de una rúbrica fiable y válida. *Revista Brasileira de Educação*, 21(64), 39-60.
- Welty, W. M. (1989). Discussion Method Teaching. *Change: The Magazine of Higher Learning*, 21(4), 40-49.
- Yaqin, A. (2021). Developing Dilemma Discussion Method in Akhlaq Learning to Promote Student's Moral Reasoning. *Lentera Pendidikan: Jurnal Ilmu Tarbiyah dan Keguruan*, 24(1), 42-55.
- Ying, J. (2020). The Importance of the Discussion Method in the Undergraduate Business Classroom. *Humanistic Management Journal*, 5(2), 251-278.
- Xue, H., Yuan, H., Li, G., Liu, J., & Zhang, X. (2021). Comparison of team-based learning vs. lecture-based teaching with small group discussion in a master's degree in nursing education course. *Nurse Education Today*, 105, 105043.

- Yusuf, H. O., Guga, A. & Ibrahim, A. (2017). Discussion method and its effect on the performance of students in reading comprehension in secondary schools in Plateau State, Nigeria. *European Journal of Open Education and E-Learning Studies*, 1(1), 1-13.
- Zaker, A., & Nosratinia, M. (2021). Development and validation of a quantitative research literacy questionnaire. *International Journal of Foreign Language Teaching and Research*, 9(37), 11-30.
- Zheng, X. (2021). Data Collection in Quantitative Research. In *Research Methods for Student Radiographers* (pp. 79-92). CRC Press.
- Zhuang, L., Ren, D., & Liu, J. (2021, July). Discussion on Bilingual Teaching Mode in Colleges and Universities Based on “Learning Situation Analysis”. In *2021 2nd International Conference on Modern Education Management, Innovation and Entrepreneurship and Social Science (MEMIESS 2021)* (pp. 220-224). Atlantis Press.