

## Gender Differences on Students Satisfaction: The Role of Teaching Quality in Higher Education

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**Abstract:** This study aimed to identify gender differences regarding students' satisfaction and teaching quality. The study also examined the role and the impacts of quality teaching on different genders and their learning satisfaction. This study used a cross-sectional model to determine the relationship between gender and students' satisfaction and their perception of the quality of the lecturers. The samples were university students that consisted of 177 males and 273 females. 5-point scale questionnaires were used to measure students' satisfaction and their lecturers' teaching quality. The result of pilot test using Cronbach Alpha shows that the reliability of the instrument is high. The inferential analysis, Pearson correlation was conducted to determine the relationship between the variables. Analysis of structural equation modeling (SEM) was also conducted to identify the role of lecturers' teaching quality on students' satisfaction based on gender. The results showed there was no significant difference between students' perceptions of the quality of teaching based on gender. However, there was a significant relationship between lecturers' teaching quality and students' satisfaction. This study also proves that teaching quality is bridging the relationship of gender with satisfaction. These findings reinforce the Role theory and contribution of teaching quality in enhancing students' satisfaction as found in various studies conducted abroad. The findings of this study would provide recommendations for trainings or courses to be conducted for the purpose of improving the teaching quality of university lecturers.

**Key words:** Student Satisfaction • Teaching Quality • Gender • Higher Education

### INTRODUCTION

Globalization in education has encouraged greater competition among higher learning institutions [1, 2]. Higher learning institutions need to adopt a culture of providing better quality of teaching and learning by balancing the current teaching process with its requirement, as well as to anticipate the needs of the clients and stakeholders. Apart from that, other attributes that should be considered are physical facilities, friendly staff and great administration services. The education system is expected to provide flawless and zero defect services [3]. Therefore, improving quality is crucial and is taken as a priority by all higher learning institutions all over the globe. Higher learning institutions should be competitive, yet able to keep in line with the government policy in establishing the country as the regional center of excellence for world-class education.

Excellent higher learning institutes would produce excellent products which are competitive students who can compete internationally. This is in line with the 2015 Indonesian Education vision which is to produce smart and competitive human capitals. Teaching quality should cover various aspects to support and contribute to the process of attaining the national visions. The key to the development of higher education is basically through improving the quality of teaching and learning [4, 5]. From the quality perspective, the students are among the major clients of the higher learning institutions. Students should be the major concern, thus, their interests and needs should be met. They expect a fun learning experience and quality teaching and learning.

The key role of learning institutions is producing quality human capitals [6-8]. Quality education can be defined as the ability of the education system to provide the needs and expectations of the users through the

process of continuous improvement. Therefore, the main effort in improving the quality of education is through the establishment of effective institutions by providing appropriate services in accordance with the vision and mission of the institution. Students are clients of an institution who require a conducive learning environment. Management of the higher learning institutions (HLI) should be sensitive in providing services particularly on the quality of teaching and learning for students. This is essential to motivate students, to enhance students' creativity and sense of belongingness to the university.

The efforts to improve the quality of teaching and learning are the priority of every higher learning institution and it is also an important agenda of governments [9]. Likewise, Indonesian government has issued policies purporting legislation and regulations that must be adhered to by learning institutions in providing services particularly in relation to teaching and learning. The quality of academic services and the quality of teaching in most of the higher learning institutions in Indonesia are still relatively at a low level [10,11]. These are the crucial barriers and constraints to the process of improving the quality of education. There are several aspects of teaching and learning that need to be enhanced particularly the content should be systematically planned, arranged and compiled in a clear and simple language [12,13]. In addition, the presentation should be delivered with the help of clear and relevant examples [14]. The contents should focus on the key issues and the teaching materials should be relevant to the students' prior knowledge and past experience [15] and teaching aids should be creatively used to help in explaining certain concepts [16, 17].

The quality of teaching is determined by the lecturer who is effectively able to produce more numbers of excellent students in the examinations [18, 19]. Lecturers have the ability to develop their own potential in finding the best method of teaching [20, 21]. They would produce excellent results when they are allowed to choose the appropriate method, clearly know the content and context to teach and how to teach it. According to Medvedeff [22], there are still impending questions on what is an effective teaching method that should serve as a model by the lecturers in their classroom teaching. Even though there are several researches on effective teaching had undergone a long period of time, yet there is no concrete answers to it.

Students are the main assets of the institutions. Due to this fact, local universities in Indonesia are competing with each other in producing great number of quality students. The quality of teaching and learning

should be pre-set by the university to meet students' satisfaction. This phenomena is the key issue of this study, which is to examine students' perception of the teaching quality at the University of Riau, Indonesia and its impact on students' satisfaction. The objectives were to establish and guarantee service quality and indirectly to attract more students to study in University of Riau. This is also due to very limited study on the relationship between the quality of teaching and learning with students' satisfaction [23, 24].

This study was conducted to explore students' perspective towards various domains of teaching and learning quality. The impact of the teaching quality on students' satisfaction was then studied by applying customer satisfaction theory and educational psychology research on the samples who were students of higher learning institutions. This study was approached by incorporating customer satisfaction research into higher learning institutions. This study is similar to many current studies which are trying to relate various quality factors to measure customers' satisfaction; however, this research is still based on the existing research on educational psychologists to identify and measure the quality of teaching and learning.

Some studies showed that there was a relationship between the qualities of student learning and students' perception of the quality of teaching, [25-27]. This is consistent with the view by Greiner [28] who noted that the quality of academic services and the quality of teaching are interrelated to students' satisfaction. Moreover, students' emotional satisfaction and commitment and their cognitive trust and commitment have an influence on the students' loyalty [29, 30]. Sensitivity to the customers' needs and interests is a domain that should be taken as a priority in supplying products or providing services [31, 32].

According to Holford and Patkar [33], in overall, there are six items of student's satisfaction which include the quality of facilities, the quality of the learning process, quality of service, curriculum quality and the quality of teaching and learning implementation. However, literature evidences that there is little research on the relationship between the teaching qualities and student's satisfaction [34-36]. Thus, it is necessary to investigate the impact of quality teaching on students' satisfaction throughout their learning program. Hence, this study is undertaken to address this issue and fill the gap in the literature.

**Purposes of the Study:** The aim of this study was to determine differences of lecturers' teaching quality and students satisfaction based on gender, to explore the

relationship between lecturers' teaching quality and students satisfaction and to identify the impacts of teaching quality on students' satisfaction based on gender. This study used a cross-sectional model to determine the relationship between gender and students' satisfaction and their perception of the quality of the lecturers. It is to test whether the results obtained can support other studies formerly conducted abroad. Hence, this study tested the theory on the role of teaching quality as an influential mean of students satisfaction based on gender and educational background.

## MATERIALS AND METHODS

Respondents of this study comprised the population of both male and female students at the University of Riau, Indonesia. The samples were selected through stratified random sampling based on gender. The study sample involved 177 male students and 273 female students. The total samples was 450 students. Items of the questionnaire were to measure teaching quality from the motivation aspects (6 items), instructional design (5 items) and efficiency of the lecturers (4 items). However, there were 6 items for student satisfaction. A pilot study conducted on 200 students showed high reliability of the research instrument particularly items on lecturers motivation (0.82), instructional design (0.73) and lecturers' efficiency (0.82). For the first research objective, descriptive analysis involving the mean and standard deviation was used to examine the different perceptions and levels of satisfaction between male and female students on teaching quality. The effect size of differences between the two genders on the variables was also performed. SEM analysis was conducted to determine gender differences of perceptions and satisfaction based on teaching quality. In addition, mediatory analysis was also used to determine the mediating effect of lecturers' teaching quality towards the relationship between gender and satisfaction. Apart from that, mediatory analysis was also carried out to determine the impact of teaching quality on motivation, instructional design and lecturers' efficiency. This study used the index matching measure which is commonly used as a benchmark to confirm the

goodness or fitness of a model, including root mean - square error of approximation (RMSEA), comparative fit index (CFI) and the normed chi-square ( $\chi^2/df$ ) [31].

## RESULTS AND DISCUSSION

**Differences of Lecturers' Teaching Quality and Students Satisfaction Based on Gender:** MANOVA analysis was carried out to identify differences in the teaching quality and students satisfaction based on gender. Results of the MANOVA analysis are shown in Table 1 below.

Based on the results above, it shows that male students had higher scores than female students on teaching quality. The significant difference was on the lecturers' motivation, whereas female students had higher satisfaction than males. The mean difference between the gender was significant, Cohen's *d* analysis was performed to determine the effect size. Cohen's *d* values as a whole should be at a low level. The Cohen's *d* values for each variable are as follows: lecturers' motivation (0.015), instructional design (0.008), lecturers' efficiency (0.001) and students' satisfaction (0.019). This shows that the difference was not significant.

The results showed that students' perception of the quality of the lecturers did not differ based on gender. Male and female students had the same perception of the teaching and learning process conducted by the lecturers. Likewise, Roebken [37] at the University of California found that there was no difference of opinions between undergraduate students' satisfaction and achievement based on gender. The difference of gender should be able to provide certain opinions on the teaching quality according to their different needs and they also experience different satisfaction. As there is little evidence of gender related impacts in term of teaching quality perception; nonetheless, this little difference maybe associated with the way male and female students rate teacher's faculty. However, Aslam [38:40] reported "Individual student characteristics such as students' expectations regarding instructor, student gender, subject interest, emotional state and student ability have all been shown to influence student evaluation ratings". Hence, comparing the result of the current study to

Table 1: Differences of lecturers' teaching quality and students satisfaction based on gender

Variables	L (n=117) Mean (sp)	P (n =273) Mean (sp)	Cohen's d	Sig.
1. Lecturers' motivation	2.72 (0.48)	2.84 (0.48)	0.015	0.010
2. Instructional design	2.78 (0.56)	2.68 (0.53)	0.008	0.061
3. Lecturers' efficiency	2.66 (0.54)	2.64 (0.53)	0.001	0.633
4. Students satisfaction	3.75 (0.77)	3.93 (0.53)	0.019	0.003

Table 2: Relationship between lecturers' teaching quality with students' satisfaction

Variables	Satisfaction		Interpretation
	r	Sig.	
lecturers' motivation	0.290	0.000	poor
Instructional design	0.159	0.001	very poor
Lecturers' efficiency	0.205	0.000	poor

Aslam's [38], we may suggest that other factors such as subject interest, emotional state, and student ability may play more important role than gender. Hence, the stakeholder, educators and teacher training course planners should take into account such factors.

**Relationship Between Lecturers' Teaching Quality and Students Satisfaction:** Pearson Correlation analysis was conducted to determine the relationship between teaching quality and students' satisfaction.

Table 2 shows that there is a significant relationship between lecturers' motivation, instructional design and lecturers' efficiency and students' satisfaction. In overall, it shows poor or low relationship between teaching quality and students' satisfaction.

This study shows that students were able to provide their own perceptions on lecturers and they were also capable of determining the differences between lecturers who have high motivation and creativity with those who do not have motivation in their teaching and learning. The result is consistent with the findings by Hamidah *et al.* [39] who found that lecturers did motivate and support their students, but at a moderate level. Hence, lecturers need to have great motivation in implementing their teaching and learning to encourage the students to be motivated too. This finding indicated students' perception that instructional design planned by the lecturers was not able to explain the details systematically. There were some weaknesses as the lecturers were using passive instructional design. However, the teaching was much focused. Due to that, it is necessary for lecturers to create flexible instructional design to let them develop their teaching and learning process. The results also showed that students also perceived their lecturers as less competent as their teaching did not meet students' expectations. A study by Hill *et al.* [40] found the quality of the lecturers was the most important factor in providing high quality education. Another study done by Roediger, Thorsten and Isabelle [41] on some students in Europe found that students wanted their lecturers to be knowledgeable, motivated, approachable and friendly.

All in all, the findings show a positive relationship between students' perception on the quality of teaching and their satisfaction. This finding means high teaching quality would result high in students' satisfaction. However, when the quality of teaching is low, students' satisfaction would be relatively low. According to Kara *et al.* [42] who conducted a study in the College of Business Administration, Pennsylvania State University, there is a positive and significant relationship between college students' experiences and their satisfaction [38]. There was also a significant correlation between students' self-efficacy and students' assessment and self-confidence. Efficacy was closely related to good teaching and lecturers' ability to organize lessons with clear instructions. Satisfaction can be seen as the result of consumption or experience [44-46]. Satisfaction derived from how the universities can provide appropriate services and administration to meet students' expectations. Satisfaction comes from the experience when the students involved in various activities at the university.

Therefore, it is suggested that first the factor of motivation should be boosted in teachers and as a result the teachers can in turn enhance students' motivation to learn. In addition, the teaching materials and teaching and learning procedures should be attractive for both teachers and students. Furthermore, different measures should be taken to increase teachers' competency as well as teaching quality.

**The Impacts of Teaching Quality on Students' Satisfaction Based on Gender:** SEM was used to test the impact of teaching quality on students' satisfaction based on gender. Results of the SEM path analysis model showed Chi Square / df = 44.052, Root Mean Square Error Approximation (RMSEA) = 0.03, Goodness of Fit Index (GFI) = 1.00 Comparative Fit Index (CFI) = 1.00. All of the measures showed that the data used in this study proved to have reasonable accommodation for the proposed model [47].

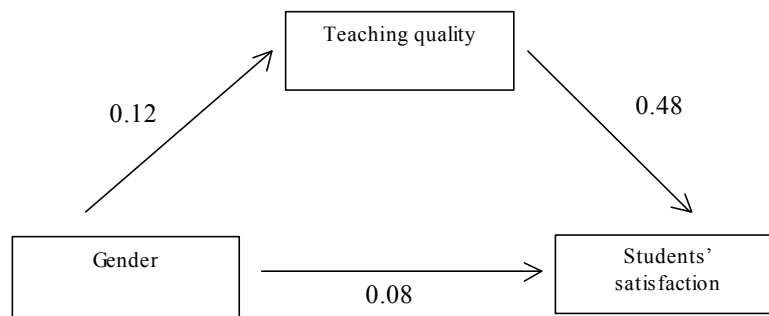


Fig. 1: The impacts of teaching quality on students' satisfaction based on gender

Figure 1 above shows the impacts of teaching quality on students satisfaction based on gender. There were three requirements to conduct mediatory analysis. Firstly, the independent variable (i.e, gender) significantly predicted that the dependent variable (i.e., student satisfaction). The overall effect of gender on students satisfaction was significant ( $\beta = 0.08$ ,  $p < 0.05$ ). Female students showed higher satisfaction. Secondly, the independent variables (i.e., gender) significantly predicted the dependent variable (i.e., the quality of the lecturers at the university). The overall effect of gender on the quality of the lecturers at the university was significant ( $\beta = 0.012$ ,  $p < 0.05$ ). Thirdly, in overall intermediate variable (i.e., the quality of the lecturers' teaching) can significantly predict the dependent variable (i.e., student satisfaction) ( $\beta = 0.48$ ,  $p < 0.05$ ) after gender variable were controlled. Sobel test results to examine the effects of mediator showed significant results,  $z = 2.52$  ( $p < 0.05$ ). Sobel test results confirmed the involvement of the intermediary variables on students of different gender toward their satisfaction. The immediate effect of gender on students' satisfaction was significant ( $E_d = 0.105$ ,  $p < 0.05$ ). Indirectly, there was an effect of gender on student satisfaction through teaching quality as mediator for the variables but yet the effect was not large, but significant ( $E_i = 0.076$ ,  $p < 0.05$ ).

Difference in gender can have different effects on students' satisfaction. Quality teaching is an intermediary factor in studying students' gender with their satisfaction. Corresponding results were also found in a study by Prasetyaningrum [48] stating that there was a positive contribution of learning variables to student satisfaction. Another study by Kusumandari Rini [49] reported other significant factors which contributed to students' satisfaction such as the learning process, environment of the campus, administration and security facilities. According to Elliott and Shin [50], satisfaction

was an appropriate outcome for the study because it had a number of benefits for students and they were related to the course, increase motivation. Overall, it can be concluded that the quality of teaching and learning contributes positively and significantly to student satisfaction. The perceptions provided by students of Riau University stated that quality teaching did contribute to students' satisfaction. Therefore, it is crucial to improve the quality of teaching and learning in order to improve students' satisfaction who are regarded as the clients of the university.

In sum, efforts to improve the quality of teaching and learning are not only a priority of every higher learning institution, but this is part of the government agenda to improve the quality of education. The government has issued policies purporting legislation and regulations that must be adhered to by higher learning institutions in providing teaching and learning services. Students are the major clients of higher learning institution. Hence, their needs should be met and considered. They expect a fun learning experience and quality teaching. Therefore, the students are entitled to receive a quality of education, but it is the duty of the faculty or schools to ensure the quality of their courses and programs offered.

**Implications:** Students expect their lecturers to have greater motivation in delivering their teaching and learning, as lecturers' motivation can bring about or enhance motivation in students. In general, students who have more satisfaction would achieve better performance and they have more intrinsic motivation. Instructional design is an important factor in the implementation of teaching and learning. Therefore, educators must develop a systematic instructional design, with detailed explanation so that students can use it as a guide in the process of learning. Normally, instructional design starts from a plan of activities. Educators need to be proficient

and efficient in teaching and learning. Lecturers' competencies must be continually developed in accordance with the development of science and technology, so that they can provide better quality of education. Findings of students' perception on their lecturers in implementing effective teaching and learning at the University of Riau was only moderate. Hence, the effectiveness of teaching and learning need to be boosted by means of quality teaching.

Implementing quality teaching and learning begins with great lesson plan and quality of content. This can be achieved through provision of adequate time and professional courses, multi and interdisciplinary of application and practice-oriented prioritized on developing syllabus particularly on soft skills or generic skills, providing a comprehensive course syllabus along with objectives to be achieved and providing current teaching and learning materials. In addition, quality lessons should be implemented, learning experience should be designed as instructional-based design, materials should be comprehensive and student-centered and finally the designated lesson plans should be implemented and assessed accurately. To this end; however, teachers need to be trained and upgraded at times.

Hence, at the higher level, it is recommended that stakeholders and educators prepare teacher training courses for teachers periodically to update them with the latest achievements in relation to quality teaching, curriculum designing and classroom management, considering cognitive factor and affective factor in teachers (Such as motivation).

## CONCLUSION

This study successfully demonstrated that teaching quality is an influential mediator to determine students' satisfaction based on gender. This study also found that there was a significant relationship between lecturers' teaching quality and students' satisfaction which can provide insights for lecturers to improve their teaching quality and students' satisfaction. Further studies with consideration of other related variables such as environment, the cost of education, subject interest, class atmosphere, etc. are recommended to be conducted. Such studies will be useful to identify the level of quality teaching and student satisfaction allowing the university to determine the areas that need to be worked on to enhance teaching quality and accordingly to improve students' satisfaction.

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