

## Academician perceptions towards online student evaluation

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### ABSTRACT

In higher education institutions, student evaluation is important to ensure that students are given the opportunity to attain a high quality of education. In Universiti Teknologi Mara (UiTM) Malaysia, student evaluation was implemented through a system called Student Feedback Online (SuFO). This study aims to investigate and analyze the perception of academicians towards the usage of online student evaluation using SUFO in UiTM. The research employed the quantitative analysis and supported by Rasch measurement. The respondents are academicians in UiTM Shah Alam. A total of 152 academicians responded to the questionnaires. By using a Likert scale, 25 items were designed in the questionnaire and distributed by official email to the academicians. Data were analyzed using Rasch measurement to measure the validity and reliability of the items and the respondents involved in this research, while SPSS was used to analyze the quantitative data. The results showed that the academicians accepted the outcome value of student evaluation and they agreed that results of student evaluation should be used for formative assessment. It is recommended for future research, an instrument using a method of multi-dimensional evaluation of teaching should be developed to evaluate the effectiveness of university teaching.

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## 1. INTRODUCTION

Students evaluation has become an important practice in many institutions around the world. In some institutions, students are often requested to complete different kinds of surveys which depict their opinion about their educational experiences, the performance of teaching staff, specific aspects of their institutions such as the facilities, infrastructures and their courses. In this sense, students are seen as information providers. According to [1], students are the education stakeholders. Therefore, it is important for the students to evaluate the academicians since students are part of an educational institution. Thus, the evaluation outcome will use to improve the quality of teaching effectiveness in the classroom as well as for administrative purposes.

As stated by [2], if student's evaluation is conducted in the right manner, it can yield potential benefits to many stakeholders in the higher education context. This statement was also supported by [3] who mentioned that students' evaluation is an effort to enhance teaching and learning environment in higher level education context. However, some problem occurred such as there were academicians doubt about the evaluation made by the student towards the performance of the academicians in teaching and their professional growth because of some biases due to gender types or lacking of faculty facilities [4]. This is being supported by the previous research done by [2] which discovered that the academicians have a negative perception on the honesty of student evaluation. On the other hand, the elements regarding the punctuality,

transparency, self-reflection and relationship between the academicians and students were positively rated based on the study that being made by [5]. While there is some debate among academicians about student evaluation, it has been accepted that student evaluation is vital for measuring teaching effectiveness because the results can be used for major decisions about the institutional future in academia. There are two types of decisions which are formative and summative [6]. Formative purpose is defined by [1] which refers to the results of student evaluation used as tools to make an improvement in teaching effectiveness and to improve the student learning environment either in the classroom or outside the classroom.

For the summative purpose, in general, [7] define the summative purpose as the feedback mechanism which is used for personnel and administrative decision. In addition, [8] gives more specific definition of summative purpose. It is referring to student evaluation that is used for administrative or personnel decision such as promotion, salary increment, demotion, dismissal, awards and meeting public or government accountability demands. Undeniably, these decisions have an impact on the quality of the institutions and created a problem. Hence, there is some argument about adopting of student evaluation as a source of evidence for measuring institution effectiveness whether for formative or summative purposes or both. [9] mentioned that the results of student evaluation can be used for formative and summative purposes which gives no significant difference between them based on the academicians's perspective. On the other hand, [1] found that there is a significant difference in the academicians' perception of student's evaluation when it is a means of formative and summative purposes.

As a conclusion, student evaluation is one of the important things in ensuring that the educational institutions can produce a good product by having a high quality and competence of the academicians. Students as one of the stakeholders in educational institutions can provide a good value of judgment and are able to contribute in administration decision. For the academicians, the student evaluation can be used for two main purposes which are summative and formative purposes.

Nonetheless, sometimes the result of student evaluation has been misinterpreted since some people lack the understanding of the definition of the formative and summative terms. This was supported by [10] who mentioned about academicians debating on the relationship between formative and summative assessments. Hence, it is not clearly stated how to determine whether they intended to use formative or summative assessment. Therefore, this study is conducted to analyze the academicians' perception on student evaluation using Student Feedback Online (SuFO) among the students and academicians in Universiti Teknologi Mara (UiTM) for formative and summative purposes.

## 2. RESEARCH METHOD

The aims of this research are to investigate the academicians perspective towards the student evaluation that is being implemented in UiTM which is known as SuFO. Student Feedback Online (SuFO) is an online system that was developed for students to evaluate the whole performance of the lecturers or academicians in teaching and learning such as the quality of the academicians, performance, content and is also being used to evaluate the facilities provided.

There are three objectives for this research which are: i) to investigate the academicians' perception on the value of the student evaluation using SuFO, ii) to determine the academicians' perception on SuFO towards formative assessment and iii) to determine the academicians' perception on SuFO towards summative assessment.

The instrument used in this research is "Survey of Academicians' perception on student evaluation using Student Feedback Online (SuFO)". This instrument was adapted from [2] because it was designed to investigate academicians' perception on student evaluation for formative and summative assessment.

In the beginning, the researcher conducted a pilot test and the findings showed the overall reliability is 0.909. According to [11], the Cronbach Alpha values that were above 0.70 is considered a good reliability, therefore, this instrument could be considered as having good reliability. After the validation and verification, then a questionnaire was distributed to respondents. The research study was carried out using a convenient sampling method. Approximately 200 sets of questionnaires were distributed to academicians in UiTM. About 170 sets of questionnaires distributed in UiTM were returned. However, only 152 of the questionnaires could be used, while the remainder of the sets were unusable. The justification for the "unusable" forms was that most of the question were not answered. Therefore, it was decided that these forms be classified as "unusable".

The responses were measured by using Likert scale. Likert scale is a measurement scale that has a five-response category ranging from "strongly disagree" to "strongly agree", which requires the respondents to indicate the degree of agreement or disagreement to each series of statements in the questionnaire.

The questionnaire was divided into four (4) sections. Section 1 is about demographic information of the respondents, Section 2 is about the value of student's evaluation based on the academicians' perspective,

Section 3 is about the academician's perspective on student's evaluation when it was used for formative purpose and the last section is Section 4 is about the academician's perspective on student evaluation when it was used for summative purpose. Table 1 shows the summary of items that measured on this survey.

Table 1. Items Measured

Items	Number of item	Measures
Section 1: Demographic Data	5	Faculty Gender Higher level of education Teaching experience Position of academicians
Section 2: Value of student evaluation	10	Idea acceptance Student responsibility Student judgment Lecturers preparation Lecturers punctuality Transparency of relationship Improvement relationship Lecturers commitment Lecturers innovation Lecturers disciplined
Section 3: Formative purpose	5	Teaching improvement Instruction improvement Student's learning improvement Professional growth Self-evaluation
Section 4: Summative purpose	5	Administrative decision Lecturers promotion Salary increment Awards Lecturers retention

In order to analyze the data, Statistical Packages for Social Science (SPSS) and Rasch Measurement were used. In describing and understanding the data from the questionnaires, descriptive and inferential statistic method are used. Meanwhile, Rasch measurement was used to measure the reliability of each item and every person involved in the research. In other word, the item difficulty and person's ability to answer the questionnaire were measured.

### 3. RESULTS AND ANALYSIS

There are a lot of research regarding human science which is more towards the field of perception. Hence, it is difficult to measure either it is qualitative or quantitative analysis [12]. In conducting any research, the most important thing is to obtain valid data, in order to produce valid output and information to be disseminated to others.

The Rasch measurement model contains an instrument that meets the needs and requirements that are suitable to be adopted in social science research [13]. The main features of Rasch measurement are to measure the validity and reliability of items and person in order to examine the suitability of the item and person in the research [14].

Reliability test and respondents also indicates that the set of questionnaires are valid and reliable to be measured [15]. As stated earlier, Rasch measurement is an instrument that is important in data analysis [16]. Items and persons will be measured while conducting an analysis to measure the validity and reliability of the data to ensure it can be transformed into valid and usable information.

In using Rasch measurement, this research analyzes data of an item and person. This research closely related to qualitative measure and it is good to construct linear measure by using this Rasch measurement. The respondent's faculty, gender, higher level of education, teaching experience and position of the academicians are the data were collected and analyzed. Likert Scale from lowest range of 1-strongly disagree until 5-strongly agree was being used in this research. The analysis was conducted by Rasch Measurement software with student version known as Ministep. It is to identify the validity and reliability of an item and person or participant involved in the analysis. An item is measured based on the level of difficulty of items. On the other hand, validity and reliability of a person is determined by the ability of person involved to answer the item in questionnaires.

Most of the academician's response to the questionnaire were female (52 percent). A majority of the academicians have a higher education of Master's degree (49 percent). For teaching experience,

the academicians mostly have 1 to 10 years of experience (31 percent) or 11 to 20 years of teaching experience (31 percent) while the position of were mostly senior lecturers (53 percent).

Table 2 shows the summary statistics for person. After the analysis was done, it showed that the value of reliability for person is 0.91 which means that it is very good based on the scale given by [17]. It also showed that the reliability with Cronbach Alpha value is 0.93 which means it has a very good criterion. From the analysis, it also showed that the separation index is 3.12 and it is being categorized as very good by [17]. According to [18], failure to get a higher number of separations may be because of low quality or small number of measurement items. On the other hand, this analysis showed a good result with a high value of separations and reliability value.

Table 2. Summary Statistics of Person Measure

	TOTAL SCORE	COUNT	MEASURE	MODEL ERROR
MEAN	65.2	19.7	52.24	2.65
S.D.	15.4	0.6	18.15	0.61
MAX.	95.0	20.0	81.76	5.83
MIN.	33.0	17.0	33.96	2.12
TRUE SD 9.67 SEPARATION 3.12 Person RELIABILITY 0.91				
TRUE SC 9.78 SEPARATION 3.60 Person REALIBILITY 0.93				
S.E OF Person MEAN = 1.18				

Next is Table 3 which shows the summary statistics of an item that was measured. From the table, it shows that the item reliability is 0.89 and the separation index of person is 2.90 which is based on the scale given by [17] as the good criteria and it can be used for further analysis.

Table 3. Summary Statistics of Item Measure

	TOTAL SCORE	COUNT	MEASURE	MODEL ERROR
MEAN	244.5	74.0	50.00	1.30
S.D.	24.7	0.8	4.29	0.08
MAX.	284.0	75.0	59.26	1.47
MIN.	185.0	73.0	42.88	1.21
TRUE SD 4.06 SEPARATION 2.90 Person RELIABILITY 0.89				
TRUE SC 4.09 SEPARATION 3.13 Person REALIBILITY 0.91				
S.E OF Person MEAN = 0.98				

By conducting this analysis, the reliability and validity of an item and person can be determined in order to make an improvement to the measurement of instrument. It is very crucial in ensuring that the quality of instrument is at a good level. The application of Rasch Measurement in this study affirmed that the used instrument was fair and valid for data collection. According to the reliability and validity measurement of an item and person using Rasch measurement, it showed that the collected data were valid and reliable for further analysis.

Section 2 consists of 10 items of the questionnaire instrument. From the analysis, it clearly showed that the academicians agreed that there is a value in student evaluation. The average of the mean for Section 2 is 3.29. The highest mean value is 3.76, it showed that most of the academicians are agree with the implementation of students evaluating the academicians. This results are aligned with the results done by [2] which showed that the academicians also agree with the idea of students as the evaluator. Furthermore their research indicated that academicians agreed with the statement that academicians will be more prepared for teaching if being evaluated. For the same statement, this study showed the mean value of 3.41 and these findings are similar with research done by them. On the contrary, the lowest of mean value obtained is 2.99. The academicians disagreed that student's evaluation can help in improving their relationship with their students. It is also similar with findings from [2] that stated the academicians are rejecting the statement that student evaluation can help in improving relationship between academicians and students.

Section 3 in the questionnaire discussed about the perception of the academicians about the usage of student's evaluation for formative assessment purpose. [1] defines formative purpose as the use of student's evaluation in improving classroom instruction, student learning, and encouraging professional growth. Generally, it showed that most of the academicians's accepting the usage of student's evaluation for formative

purpose. Their research also found that academicians support student evaluation being used for formative purpose

The highest value of mean is 3.70. It is about satisfaction of feedback on student's evaluation is helping lecturers to improve their teaching. According to [5], by calling attention to teaching methods and outcome, student evaluation plays a positive role in improving the condition of teaching and learning. In addition, there were many researchers stated that feedback from student rating can help improve teaching instruction [19, 20].

[21] had provided a list of factors about effective teachers. One of the factors is about the teachers will use feedback from students and others to assess and improve their teaching. Based on this statement, the mean value which is 3.61 indicate that academicians in UiTM agreed that student evaluation report will help academicians to evaluate themselves. Other finding with 3.60 mean value showed that academicians agree that result of student evaluation is needed to improve classroom instruction. To summarize the analysis on this section with overall mean value is 3.6 showed that the academicians mostly accept formative assessment for the usage of student's evaluation. In addition, a research done by [1] showed the same finding that academicians in a Nigerian university accept student's evaluation for formative purpose

Analysis for Section 4 contains five items of questions about the summative assessment in student evaluation. Summative purpose is being defined by [8] as the usage of student's evaluation in making administrative and personnel decision such as promotion, salary increment and awards of the academicians. There are several uniqueness in this research findings if compared with other researchers. The first statement that was asked in the questionnaire was about the need of student evaluation in supporting the administrative decision making. It showed that the mean value is 3.24 which justifies the academicians' perceptions in accepting the statement. It is different with research done by [2] which showed that academicians rejected the statement that student evaluation is needed in administrative decision making. [1] identified that one of the benefits in student evaluation is excellence in teaching can be recognized and awarded. In contrast, academicians in UiTM rejected that student evaluation is needed to select the best teaching award in the faculty. It is based on the mean value 2.59 which showed their disagreement towards the above statement.

A little bit lower for mean value 2.54 showed that the academicians reject that student evaluation should be used for promotion of the lecturers although [8] found that the results from student evaluation can be used for academicians' promotion. Nonetheless, this research finding is similar to the research done by [2] that is academicians refuted the idea of student evaluation being used for promotion purposes. The second lowest value of mean in section 4 is about the idea of student evaluation is needed for salary increment for the lecturers. From the analysis, it showed a mean value of 2.39 which can be interpreted as the academicians were rejected the idea. [2] also found that using student evaluation as a reference for salary increment is strongly criticized by the academicians. Academicians in UiTM do not support that student evaluation can be used for decision of retention or dismissal of the academicians. It is being supported with the value of mean 2.72 from the analysis.

The findings from this study can be concluded as academicians in UiTM rejecting the idea to use student evaluation for summative purposes with overall mean value of 2.81. This conclusion is supported by the overall results on research done by [2]. Apparently, the majority of academicians strongly oppose the idea of using student evaluation for summative assessment [22].

#### 4. CONCLUSION

This paper presents about academicians' perception towards online student evaluation using SuFO. Currently, there is some debate about the purpose of student evaluation bring for the benefit of academicians. Therefore, this paper discuss the matter based on the value and purposes of student evaluation either it is being used for formative or summative purpose. As a summary, the overall results of this research indicate that the academicians acknowledge students as evaluators to the academicians in improving teaching skills and effectiveness. However, the academicians prefer to adopt it as formative purposes rather than summative purposes. These findings are also supported by a research from [23] which stated that student evaluation of teaching should not be used for summative assessment of university faculty. Nonetheless, [24] suggested that formative evaluations can be used to complement the summative evaluations at the end of semester evaluations. She further stated that the formative evaluations were quite valuable in that they provide the instructor and other stakeholders with direct feedback during the course, while changes could be made. This study also elicit that the usage of online tools for student evaluation brings more flexible with a very low cost and faster as well as organized compared to the manual system. The benefits from online student evaluation that all the input can be kept efficiently and effectively for future use. With the big data technology, it is hoped that there will be a way to mining the data to get the insightful information.

It is recommended that student evaluation should have a multidimensional method of teaching evaluation. The academicians can measure the quality of teaching along the years of student learning by determining the result of current semester with previous semester through evaluation indicators. The academicians also can determine the level of quality of themselves for the whole semester.

Furthermore, UiTM apparently needs an accurate instrument to evaluate teaching and the academicians since there are a lot of issues regarding the validity and reliability of students as the evaluator to the academicians. This suggestion was supported by a study from [25]. This instrument should not only make the student as the evaluator but also as a stakeholder of the university in order to evaluate the academicians. Hence, the results from this research can be used as a reference and guideline to make an improvement towards the instrument of student evaluation.

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