

Students' Attitudes Towards Providing Peer Feedback

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Abstract- *With the growing demand of the assessment process, peer assessment has become widespread and popular. As students' are involved in grading, it is imperative to find out the students' attitudes towards this assessment process. Hence, this study aims to investigate the students' attitudes towards providing peer feedback. In the context this study has been carried out, peer assessment is still a new concept which needs more exploration and practice. The sample of this study consisted of 45 science students who were studying technology in a higher educational institute. The students in groups provide peer feedback for the oral presentations their peer groups made. A questionnaire was used as the research instruments of this study. With regard to the attitudes on providing peer feedback, the finding showed that 84.5% of the students have mentioned that peer assessment was helpful to student's learning. This indicates that there is a possibility of utilizing peer assessment process in this context. However, in the study only 46.7% of students shared the opinion that their knowledge and skills were sufficient to assess their peers. It is expected that the findings of the study will contribute to the teaching and learning context of Sri Lanka.*

Keywords- peer feedback, peer assessment, attitudes

I. INTRODUCTION

There is an increased interest and the popularity of peer assessment in higher education mainly due to the benefits of peer assessment. Peng (2010) points out that "Peer assessment has received much attention in recent years due to the growing focus on learner independence and autonomy" (p.89) On the other hand; it develops the learner's responsibility towards learning. Peer assessment provides constructive feedback for the learners. Here, the feedback is provided by the peers.

As peers are involved in the assessing, assesses have expressed doubt on the grades they have received. According to the survey conducted by Rushton et al. (1993) on the students' perception before and after the participating in peer assessment, they found out that "prior to the exercise, a large majority of students considered peer assessment to be less fair, accurate, informed and stringent than teacher assessment" (p.78-79) On the other hand, in the study of Cheng and Warren (2003), despite the fact that the students had scored 500 on the TOFEL, they did not have the confidence to evaluate their

peers. In the studies of Miller and Ng (1994) and Oi (2011) have identified that students all together had shared feelings of being inexpert, unqualified and not proficient enough in English to evaluate their peers' oral production. In fact these facts can increase students fear on peer back.

Peer assessment is hardly used in Sri Lankan context, hence it is imperative to identify students' perception on peer assessment process.

II. LITERATURE REVIEW

Peer assessment is significantly contributing to the assessment process in different teaching learning contexts. Karami & Rezaei (2015) point out that "Peer assessment is considered to be one of the main forms of alternative assessment. The importance of peer assessment is highlighted in different educational learning and educational research" (p. 94). In fact, peer assessment provides opportunities for students to enhance different skills of learners. The vitality of peer assessment relies on its different skills development of learners. Peer assessment not only develops the autonomy but also the performance of the students. According to Topping (2009) "Peer assessment is an arrangement for learners to consider and specify the level, value, or quality of a product or performance of other equal-status learners" (p.20-21). At the same time, it improves learner participation in the assessment process. Puegghrom et al (2011) specify that peer assessment "is an alternative of assessment process that involves the learner's participation. It can well reflect the effectiveness of the learner's feedback and cooperation as well as enhance learners' awareness of self-learning and self-esteem" (p.2). This involvement also helps the students to develop themselves, to identify their own flaws and to make themselves aware about the assessment process. On the other hand, Peer Assessment develops the critical thinking of students and to be impartial in assessing and these skills are also important in occupations. In fact, Kwan and Leung (1996) claim that "the ability to judge the performance of peers critically and objectively is a skill that students should possess when they enter employment" (as cited in Kovac et al, 2012, p.9).

Considering the literature, many studies have been carried on attitudes on peer assessment. Among them in the study of Peng (2008), she investigates whether there is a

correlation between peer-assessment, attitudes and the language proficiency levels of the students and concludes that even though students did not have any prior exposure to peer assessment, they all expressed positive attitudes towards peer assessment regardless of their different proficiency levels (p.104). Interestingly, according to the study of Kovac et al. (2012) "The majority of participants (88%) think that peer evaluation, in other words, commenting about different levels of performance (verbal, non-verbal, technical and organizational) can help perceive errors more clearly and consequently improve some aspects of future presentations". (p.14-15). Thus it is obvious that peer assessment not only develops the peers but also the individual who assesses the peer.

However, there are counterarguments on peer assessment as there are some factors which may negatively affect on providing peer feedback. Nortcliffe (2012) have found that "racial prejudice, personality clashes and personal loyalties may distort the results". On the other hand, Topping (1998) believes that "social embarrassment might be a particular issue of concern in smaller groups where students know each other and students may not take the exercise seriously" (p. 253). In fact, this type of factors can negatively affect regions like Asia where culture and religion have much influence on people.

Considering the literature, no study was found on examining the students' attitudes on providing peer feedback. Hence, the aim of this study is to investigate the students' attitudes towards providing peer feedback.

III. METHODOLOGY

3.1 The sample

The sample of this study consisted of 45 students who were studying in a higher educational Institute. During their Advanced Levels, they have studied in science stream. The age group of the participants is 21-23 and all of them belonged to the lower middle socio-economic background. At the same time, they are a mixed ability group.

3.2. Questionnaire

The questionnaire consisted of a five-point Likert scale and was adopted from Kovac & Sirkovic (2012) and MaCgarr and Ciforrd (2012). Basically, it obtained the attitudes of participants on providing feedback. The questionnaire consisted of 15 questions on providing feedback such as, "I am not proficient enough to assess my peers", "PA

makes students understand more about teacher's requirements" etc.

3.3 The procedure

The study was carried out for a period of 7 weeks. During this period they were exposed a session on peer assessment and how to provide peer feedback. In the next stage, students were grouped as five members per a group. Then the students were supposed to make two group presentations to which they receive peer feedback respectively.

3.4 Analysis of data

To obtain students' attitudes towards peer assessment in providing peer feedback, the data collected from the questionnaire distributed to the peer assessment group were used. The research question was analyzed using SPSS statistical package. KMO & Bartlett's Test of Sphericity was used to measure the adequacy of the sample to find out whether the questionnaires are capable of measuring the attitudes and Exploratory Factor Analysis was carried out for the questionnaire. Further, Descriptive Statistics was used to find out the mean, mode and the standard deviation of the responses given by the informants.

IV. RESULTS

The feedback of the questionnaire on providing peer feedback was used as the data in examining this question. The results of these data are presented in the figure 4.1.

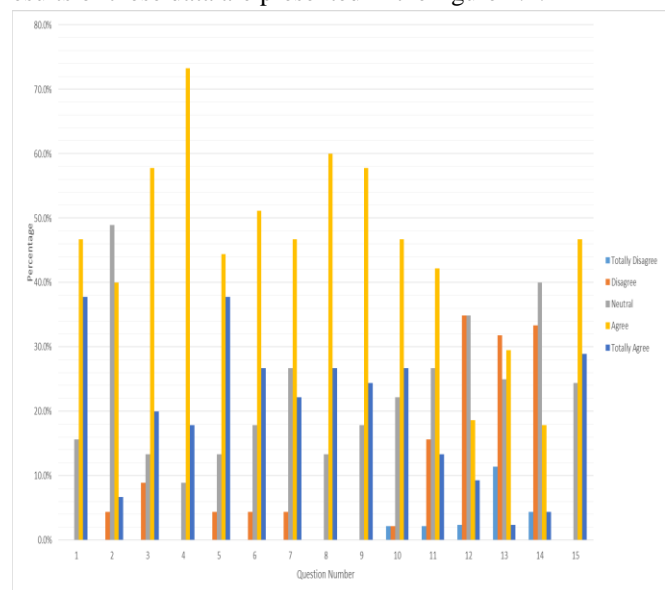


Figure 4.1 Attitudes on Providing Feedback

The results of the survey indicated that all the participants i.e. 45 students had positive attitudes towards peer assessment. In the sample, 84.5% believed that peer assessment helped students learning. This finding implies that the students in this context believe that the peer assessment will be helpful in their teaching learning context and this is the pessimistic view irrespective of the fact that the concept of peer assessment is utilized for the first time in this context. Also 82.2% of the sample considered that through providing feedback, they were able to improve their own presentation skills. This fact indicates that the students have identified that the peer assessment can be used in developing their presentations skills. Similarly, 68.9% of the sample shared the opinion that by assessing others they could identify their own errors, while 4.4% of them disagreed with this opinion and according to these figures, it was evident that some students had utilized their reflective thinking and self-efficacy while they were engaged in providing peer feedback.

At the same time, 86.7% of the sample shared the opinion that through providing peer feedback, they were able to understand more about quality standards and assessment criteria. This also could be considered as an advantage of assessment as once students were aware of the marking criteria and the level the teacher expects, it was convenient for them to structure their assessments. Meanwhile 82.2% of the sample thought that they could identify the aspects which were being assessed in peer assessment by providing feedback. Thus, they were able to realize how they would be assessed in peer assessment. In traditional assessment methods, there was no opportunity for them to realize how they would be assessed and to critically think about the assessment process was conducted. In fact, peer assessment provides opportunity and guidance for the learner to think critically.

Another issue the researcher faced in this learning context was that the audience was not paying their attention to the students, who were making the presentation. Hence, with regard to the role of learning, 73.4% of the participants believed that they could become active learners through providing feedback to their peers. At the same time, 55.5% of the participants shared the opinion that they could increase the interaction among the students through assessing peers while 17.8% of them disagreed with this opinion. These findings imply that the peer assessment is able to play a vital role in making passive learners active in this teaching learning context.

The competency of the peers is vital in providing their peers with fair and reasonable feedback. However, according to the findings, it was apparent that some learners lacked the confidence in their competency in English and

presentation skills, since only 46.7% of the sample believed that they had sufficient knowledge and skills to provide feedback to the peers while 4.4% of them had no confidence in the same. Objectivity is imperative factor in the assessment process, but with regard to the involvement of personal feelings in peer assessment, only 37.2% of the participants believed that they were not reluctant to give low marks for their peers, 34.9% of them had shared neutral as the response with regard to the same, while 27.9% of the sample shared the opinion that they were reluctant to give low marks for the peers. At the same time, 43.2% of the sample shared the opinion that they were able to remove their personal feelings from the assessment process, but 31.8% of them were unable to disregard their personal feelings from the assessment process. Above finding indicate that some students are unable to achieve objectivity in assessing their peers. On the other hand, 37.7% of the participants shared the opinion that it was not difficult to assess their peers while 22.2% of them shared the opinion that it was difficult to assess their peers. However, this can be minimized by providing more training opportunities for the students.

However, 76% of the sample shared the opinion that peer assessment should be used in future presentations. This indicates that the irrespective of the fact that the learners are new to this assessment process, they have observed the important aspects of providing peer feedback.

Moreover, the following table shows the descriptive statistics of attitudes on providing peer feedback. Similarly, it shows the minimum and the maximum mode of scale selection of the informants and the mean value of each item of the questionnaire. The mode is the value that occurs most frequently in the set of selection. The mean is the average of the data, which is the sum of all the selections divided by the number of selections in the feedback form. At the same time, it describes the sample with a single value that represents the center of the data. Many statistical analyses use the mean as a standard measure of the center of the distribution of the data. The descriptive statistics of attitudes on receiving feedback is shown in Table 4.2. Here, “N” indicates number of responses per each item and two participants have not indicated the selections for all the items.

Table 4.2 Descriptive Statistics of Attitudes on Providing Peer feedback

| | N | Minimum | Maximum | Mean | Std. Deviation |
|--------------------|----|---------|---------|------|----------------|
| 1 | 45 | 3 | 5 | 4.22 | .704 |
| 2 | 45 | 2 | 5 | 3.49 | .695 |
| 3 | 45 | 2 | 5 | 3.89 | .832 |
| 4 | 45 | 3 | 5 | 4.09 | .514 |
| 5 | 45 | 2 | 5 | 4.16 | .824 |
| 6 | 45 | 2 | 5 | 4.00 | .798 |
| 7 | 45 | 2 | 5 | 3.87 | .815 |
| 8 | 45 | 3 | 5 | 4.13 | .625 |
| 9 | 45 | 3 | 5 | 4.07 | .654 |
| 10 | 45 | 1 | 5 | 3.93 | .889 |
| 11 | 45 | 1 | 5 | 3.49 | .991 |
| 12 | 43 | 1 | 5 | 2.98 | 1.012 |
| 13 | 44 | 1 | 5 | 2.80 | 1.069 |
| 14 | 45 | 1 | 5 | 2.84 | .928 |
| 15 | 45 | 3 | 5 | 4.04 | .737 |
| Valid N (listwise) | 42 | | | | |

On the other hand, Standard Deviation (often abbreviated as "Std Dev" or "SD") provides an indication of how far the individual responses to a question vary or "deviate" from the mean. SD states how the responses are spread out around the mean, whether it is scattered far & wide. In the above table it is clear that there is no wide standard deviation except in item 12 and 13 in which deviations are observed as 1.012 and 1.069 respectively.

It is imperative to find out the sample adequacy in order to conduct the Exploratory Factor Analysis. Hence, KMO & Bartlett’s Test of Sphericity is used to measure of sampling adequacy. According to most academic and business studies, KMO & Bartlett’s test play a vital role in accepting the sample adequacy. According to this test, the KMO ranges from 0 to 1, the world-over accepted index is over 0.6. At the same time, the Bartlett’s Test of Sphericity is relevant to the significance of the study and thereby shows the validity and suitability of the responses collected to the problem being addressed through the study. For Factor Analysis to be recommended suitable, the Bartlett’s Test of Sphericity must be less than 0.05.

A principal component analysis (PCA) was conducted on the 45 items with orthogonal rotation¹ in varimax² rotation method. The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis.

¹An orthogonal rotation rotates the axes to give a different perspective. The goal of rotation is to obtain a simpler factor loading pattern that is easier to interpret than the original factor pattern.

²To maximizes the squared factor loadings in each factor.

Table 4.3 KMO and Bartlett's Test on the Sample of Attitudes on Providing Feedback

| KMO and Bartlett's Test | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .642 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 224.416 |
| | df | 105 |
| | Sig. | .000 |

KMO = 0.642, and all KMO values for the individual items were > .89. This is above the acceptable limit of .5. According to Keiser if the KMO value is between 0.60 – 0.69, the sample is mediocre.

Moreover, Bartlett’s test of sphericity χ^2 (253) = 224.416, $p < .001$, indicated that the correlations between items were sufficiently large for PCA. An initial analysis was conducted to obtain the eigenvalues³ for each component in the data. That is, the significance is less than 0.05. In fact, it is actually 0.000.

Four components had eigenvalues over Kaiser’s criterion of 1 and in combination explained 50.32% of the variance. The scree plot (see appendix 4.3) was slightly ambiguous and showed inflections that would justify retaining both components 2 and 4. In general over 45 Respondents for the sampling analysis is probably adequate

The Exploratory Factor Analysis developed five subscales and 13 items in the students’ attitudes towards peer assessment in providing peer feedback. Based on the characteristics they shared, the subscales were named as 1. Positive attitudes subscale, 2. Self-motivation subscale, 3. Confidence subscale, 4. Self judgement subscale and 5. Interaction subscale. These items, basically inquire the attitudes and helpfulness of peer assessment in enhancing the self- motivation, judgment and integration in the classroom. Further, these scales are used to inquire the confidence with regard to peer assessment. The table 4.4 shows the subscale identified in the questionnaire and supporting questions of the questionnaire for each subscale.

³Eigenvalues are a special set of scalars associated with a linear system of equations (i.e., a matrix equation) that are sometimes also known as characteristic roots, characteristic values (Hoffman and Kunze 1971), proper values, or latent roots (Marcus and Minc 1988, p. 144).

Table 4.4 Exploratory Factor Analysis on Providing Peer Feedback

| Factors | Indicators |
|-------------------------------|---|
| 1.Positive attitudes subscale | Q.1. Peer assessment is helpful to student's learning |
| | Q.15. I recommend using peer assessment in future presentations. |
| | Q.12. I was reluctant to give low scores for my peers. |
| 2. Self-motivation subscale | Q.5. Assessing other student's presentation helps me to improve my own presentation skills. |
| | Q.9. By assessing other presenters I am forced to pay attention to aspects that are being assessed. |
| | Q.6. When I assess other presenters, I develop the skill of giving and receiving feedback. |
| 3. Confidence subscale | Q.7. Assessing other students' presentations help me to recognize my errors more clearly. |
| | Q.4. I think the scores I gave are important to my peers. |
| 4. self judgement subscale | Q.3. The scores I gave my peers were fair and reasonable. |
| | Q.14. Assessing my peers is difficult for me. |
| 5. Interaction subscale | Q.13. I found it difficult to remove my personal feelings from the evaluation process |
| | Q.10. By assessing other presenters I can actively participate in class activities. |
| | Q.11. PE increases the interaction among the students |

There are two items which can be eliminated in future studies. Those are question number 8: PA makes students understand more about quality standards and assessment criteria and 2: My knowledge and skills are sufficient to assess my peer

V. CONCLUSION

Peer assessment plays a vital role in the education. It can be utilized to increase learning by positively changing the attitudes towards speaking. Similarly, it makes the class more dynamic and interesting, both for the teacher and the student. The students in this study neither had experience with peer assessment nor heard of the peer assessment process. However, majority of expressed positive attitudes on peer assessment and they believed that they have knowledge and confidence to assess their peers. Considering the literature, with regard to the attitudes of students on peer assessment, this is the first time providing feedback was observed separately. Hence, this study has catered to the demands of the modern education system in Sri Lankan context. It is expected that this study will stimulate

the researchers and practitioners to deal with peer assessment for the betterment of the future of the education in Sri Lanka.

REFERENCES

- [1] Cheng, W & Warren, M (2003) Having second thoughts: student perception before and after a peer assessment exercise, in: P. Morris, Y. Fung & R. Carr (Eds) *Curriculum, learning and assessment: the Hong Kong experience* (Hong Kong, Open University of Hong Kong Press)
- [2] Cheng, W & Warren, M (2003) Peer assessment of language proficiency, *Language Testing*, 22:1, 93-121, DOI: 10.1191/0265532205lt298oa
- [3] Karami, A. & Rezaei, A (2015) An Overview of Peer-Assessment: The Benefits and Importance, *Journal for the Study of English Linguistics*, 3:1, 93-99, doi: 10.5296/jse1.v3i1.7889
- [4] Kovac, M.M. & Sirkovic, N. (2012) Peer Evaluation of Oral Presentations in Croatia, *English language Teaching*, 5: 7, 8-16, doi: 10.5539/elt.v5n7p8
- [5] Kwan, K & Leung, R. (1996) Tutor versus peer group assessment of student performance in a simulation training exercise, *Assessment and Evaluation in Higher Education*, 212, 3, p. 205-214
- [6] MacGarr, O. Clifford, A.M. (2013) 'Just enough to make you take it seriously': exploring students' attitudes towards peer assessment. *High Education*, 65: 677-693, doi: 10.1007/s10734-012-950-z
- [7] Magin, D. & Helmore, P. (2001) Peer and Teacher Assessment of Oral Presentation Skills: How reliable are they?, *Studies in Higher Education*, 26: 3, 287-298, doi: 10.1080/03075070120076264
- [8] Miller, L. & Ng, R. (1994) Peer Assessment of oral language proficiency. *Perspectives: working papers of the department of English, City Polytechnic of Hong Kong*, 6, 41-56
- [9] Nortcliffe, A.L. (2012) Can Students Assess Themselves and Their Peers? - A Five Year Study, *Student Engagement and Experience Journal, Volume 1, Issue 2, ISSN (online) 2047-9476, DOI 10.7190/seej.v1i2.29*
- [10] Peng, J.F. (2008) Peer Assessment of Oral Presentation in an EFL context, UMI Dissertation Publishing, Ann Arbor
- [11] Peng, J.F. (2010) Selected Proceedings of the 2008 Second Language Research Forum, ed. Matthew T. Prior et. al., 89-107
- [12] Puegphrom, P. & Chiramanee, T. (2011) The Effectiveness of Implementing Peer Assessment on Students' Writing Proficiency, The 3rd International Conference on Humanities and Social Sciences, 1-17
- [13] Rushton, C, Ramsey, P. & Rada, R. (1993) Peer assessment in collaborative hypermedia environment: A

case study. *Journal of Computer Based Instruction*,20,75-80

[14] Topping, K.J. (1998), Peer Assessment between Students in Colleges and Universities, *Review of Educational Research*, 68 : 3 , 249-276 , Retrieved from <http://www.jstor.org/stable/1170598>

[15] Topping, K.J. (2009) Peer Assessment, *Theory into Practice*, 48:1, 20-27, doi: 10.1080/00405840802577569