EFFECTS OF CONSTRUCTIVE AND TIMELY FEEDBACK ON ACADEMIC PERFORMANCE OF STUDENTS

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ABSTRACT

This study intended to evaluate the effects of constructive and timely feedback on academic performance of students and explore the student's experiences of learning through Constructive feedback. Cross sectional descriptive study was conducted for three months at PNS, LUMHS. Data was collected on questionnaire. Participants were informed and a written consent was obtained. A total number of 151 participants, out of which 35 were males and 116, were females with mean age 22.28. Study included the subjects of 2nd and 3rd year (33.1%) and 4th year/final year (33.8%). Fear and Lack of proper communication were found as main barriers between students and teachers affecting the academic performance. A significant relation was found between variables, by using chi-square test (X2(1, N=151), p = 0.004. Applying constructive feedback improves performance by some assisting factors which improve safe learning environment, effective communication, clear learning goals. The students experienced effective learning through summative feedback, and male students reported more awareness about constructive feedback than female student's application of computer skills and information technology among staff nurses was good.

KEYWORDS

Feedback, learning, constructive, formative, academic performance

INTRODUCTION

Constructive and timely feedback is the process of assessing the performance that is given by teachers to students for their better learning. Feedback is an important component in all learning context, which lead to enhance the Learner's competencies, skills and knowledge of learners. Feedback strategy concentrates on as many as feasible of these attributes in order to encourage learning. The term feedback actually encapsulates two components.

Formative evaluation is conducted during the instructional process to improve teaching or learning. What makes formative assessment formative is that it's used to make immediate adjustments. Internal is also known as formative evaluation method, which is used to judging the worth of the program in progress. The external also known as summative evaluation, which is used to judge the value of an event at the completion of activities and it is more focused on result.

"Constructive feedback" motivates students, develops their wisdom, and increases the professional development of students about what has gone wrong and right. Feedback also helps teachers to detect how learning has been acquired, understood and the achievements achieved by students, so that the teacher can reflect on their own practices also, because if the student's achievements are not as expected it may impact learning. On the other hand students are benefited because, feedback supports their academic knowledge.

All of the assessments could be summative which means they are potential enough to carry out a summative function but only specific are having the extra capability to serve a formative function. The data can only be collected through the help of questionnaires, interviews, testing, surveys and observations. The data shall also be collected through a model which should be specific and step to step procedure while taking care of that it should be valid and accurate. The questionnaires can collect large samples of graduate information

Moreover, many organizations want short design times. Although the formative portion is located over to the other methods like the usage of fast prototyping and using evaluation and testing methods as one moves on. Which obviously is not accurate but it is appropriate to many organizations because they do not care about accurate content measurements but rather the knowledgeable workers and end product skilled.

LITERATURE REVIEW

The immediate feedback is used to improve student's performance in many educational settings. Feedback is designated as the method of system control in which the results obtained from a task/activity present in any educational process are returned to the student in order to improve and optimize their incorporation. With the successes, errors, strengths and weaknesses of learners, it expresses opinions and judgments based on the learning process⁷. Feedback therefore applies to virtually any part of the educational process that involves similar adjustment mechanics and system self-regulation⁸. In the teaching-learning process the feedback is a process in which concerns are shared and suggestions are given in order to know and improve the performance in the future, in addition to encouraging and inviting reflection on the other hand considers it essential for the student to be able to compare their current performance with standard performance standard and to take action to shorten or improve the weaknesses.

Its importance in the learning evaluation is that the student recognizes his level of performance with the provision of corrected evaluations and then returns them with comments (a form of feedback), which can serve as a starting point for the student to evaluate themselves and take timely action on their teaching process. Students can use feedback to monitor their performance strengths and difficulties, modify or improve homework in a more efficient way. Therefore, students need to commit themselves and pay attention to information. Furthermore, it facilitates the development of self-assessment in learning if the student is asked to identify strengths and weaknesses in their work before providing the feedback, following the assessment criteria established or making criticism of the tasks, depending on the feedback received 10. Scriven first suggested a distinction between formative evaluation and summative evaluation in 1967. Formative evaluation was intended to foster development and improvement within an ongoing activity (or person, product, program, etc.). Summative evaluation, in contrast, is used to assess whether the results of the object being evaluated (program, intervention, person, etc.) met the stated goals 11.

RESEARCH OBJECTIVE

1. To evaluate the effects of constructive and timely feedback on academic performance of students and explore the student's experiences of learning through Constructive feedback.

HYPOTHESIS

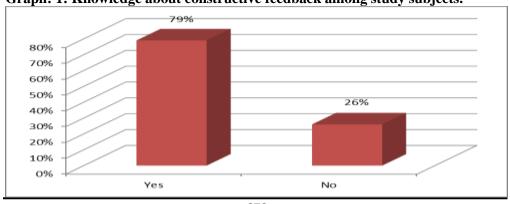
1. Might have enough knowledge regarding constructive feedback.

RESEARCH METHODOLOGY

A cross-sectional descriptive study was performed on 151 participants at PNS (People's Nursing School), LUMHS (Liaquat University of Medical and Health Sciences) Jamshoro. Data were collected through a self-developed structured questionnaire that was further divided in to sub section consisting of demographic variables and constructive feedback. Participants were explained aims of study and were encouraged to participate voluntarily. Participants were enrolled after obtaining written consent followed by Ethical Review Committee approval from LUMHS (Liaquat University of Medical and Health Sciences) Jamshoro and concerned authorities. The inclusion criteria for the study were second, third and final year BS Generic Nursing students (male and female), having age group 18 to 30 years and who were willing to participate excluding; first year BS Nursing students having age less than 18 years and above than 30 years and who were not willing to participate in the study. Data was represented by SPSS version 22. For all the qualitative variables like Gender, qualification and constructive feedback awareness percentages and frequencies were calculated. Regarding quantitative variables like SD and Mean were measured. To assess the relation between the variables Chi square test was performed. The study was considered significant if p value is less than 0.05 with confidence level of 95 % and 5% level of margin error.

DATA ANALYSIS AND RESULTS

In this study, total number of (n=151) subjects were included in this study, out of which 35 were male and females 116. The age (mean) of the subjects in this study were 22.28 & standard deviation of \pm 1.228. The subjects age was 20—22 years 47% and 23—25 years were 53%. This study included the subjects of 2nd year and 3rd year (33.1%) and 4th year/final year (33.8%).



Graph: 1: Knowledge about constructive feedback among study subjects.

The results of this study showed that majority of students (79%) knew about the constructive feedback whereas 26% of them did not know.

Table 1: Showing subjects' timely feedback and barriers leading to poor feedback.

Questions	Responses	Percen tages (%)	P-value
Feedback received by the study subjects.	Yes No	84.8 15.2	< 0.001
Timely feedback received by the study subjects	Yes	81.5	< 0.001
	No	18.5	
Experience of receiving, Summative/Formative feedback by study subjects.	Summative feedback	67.5	0.051
	Formative feedback	32.5	
Drawbacks of poor feedback on academic performance among the study subjects.	De-motivation	13.9%	0.007
	Low grades	4966	
	Students Conflict	36.42	
Preparedness of students for	Yes	88.7	0.024
class tests and assignments	No	11.3	
Active participation in the	Yes	84.8	
class among the study subjects.	No	15.2	0.006
Barriers between student and	Fear	74.83	0.004
teacher leading to poor	Poor Communication	17.21	
feedback.	Lack of time of students	7.28	

Majority of students (84.8%) reported to receive the feedback of subjects previously but 15.2% of them did not and found significant difference, X2(1, N=151), p=<0.001. Similarly majority of students (81.5%) received timely feedback followed by summative feedback (67.5%) and formative feedback (32.5%). Drawbacks of poor feedback on academic performance among the study subjects were found as demotivation (13.9%),low grades (49.66%) and students conflict (36.42%). Majority of students (88.7%) reported having preparation for class tests and assignments and active participation in the class (84.8%). The main barriers between students and teacher leading to poor feedback were found as fear (74.83%) followed by poor communication (17.21%) and lack of time (7.28%). All these findings were significant at P- value ≤ 0.05 .

CONCLUSIONS

Constructive feedback constitutes a vital addition to effective learning. Applying constructive feedback improves performance by some assisting factors which improve safe learning environment, effective communication, clear learning goals. The students experienced effective learning through summative feedback, and male students reported more awareness about constructive feedback than female students. The strength of study includes the easy access of subjects and No huge economic trouble. The weakness of the study is the small sample size which can be increased in future studies in various study fields of medical sciences and social sciences. There is no conflict of interest in this study.

DISCUSSION

This research was designed to explore observations of students' constructive and timely feedback. Constructive feedback constitutes a vital addition to effective learning. Applying constructive feedback improves performance by some assisting factors which improve safe learning environment, effective communication. The results are also in line with other studies which show that constructive feedback improves learning and teaching. The challenge is that students may be so conscious of grades that they focus on performance goals and make little effort to set themselves learning goals. To engage them in refocusing on the learning process the formative assessment in this instance was designed as part of the assessment strategy. However, the literature also shows that some experts consider feedback is not always helpful in learning or benefiting from performance which contradicts the results of the study.

The students experienced effective learning through summative feedback, and male students reported more awareness about constructive feedback than female students. The results of this study are consistent with the findings to enhance learning, all students should receive feedback steadily, objectively and right after the students have performed the task effectively. This is a positive indication that students gained interest in the social learning context and were engaged in deeper thinking.

Constructive feedback has a decisive effect on the learning of the students. When you want to give a feedback, then one should have focus on behavior instead of person. Although most of the teachers face difficulties to give time and provide all students with feedbacks. In this study, most teachers and Students did not see that time or any other purpose could be considered as a hindrance to failure providing constructive feedback. Information provided to students to improve their learning during the academic year may come from a variety of sources, such as tests, quizzes, performance tasks, projects and assignments.

On the basis of student performance, teachers can provide constructive and encouraging feedback to students in order to ensure the effectiveness of feedback. The learning outcomes should be clearly stated, the student performance heading should be explained to the students as they perform the tasks and gather the information, and constructive feedback. ⁴⁸feedback can lead to a successful teaching and learning process, as well as personal satisfaction for both teachers and students. Feedback should be provided systematically, consistently, effectively and objectively with a view to achieving the desired learning outcomes and making the teaching and learning process fruitful.

While studying nursing science, students need to develop good skills in communication; problem solving, clinical reasoning and research- based clinical practice. It is critically important for them to develop an inquiring approach to their university study so that they develop the skill to conduct research in a professional context after graduation. Although most students will have acquired some fundamental statistical concepts during their school careers in country and abroad, the subject may appear challenging to some at university and in career. This study apprehends the significance of providing constructive feedback by observing their student's progress, refining their curricula and adapting their teaching strategies. Feedback is a prerequisite for learning and should be used effectively to tackle complex problems, students face as the cornerstone of sound pedagogy.

REFERENCES

- Ramprasad R, Batra R, Pilania G, Mannodi-Kanakkithodi A, Kim C. Machine learning in materials informatics: Recent applications and prospects. npj Comput Mater. 2017;3(1).
- Dixson DD, Worrell FC. Formative and Summative Assessment in the Classroom. Theory Pract. 2016;55(2):153–9.
- Dawson P, Henderson M, Mahoney P, Phillips M, Ryan T, Boud D, et al. What makes for effective feedback: staff and student perspectives. Assess Eval High Educ. 2019 Jan;44(1):25–3
- Hardavella G, Aamli-Gaagnat A, Saad N, Rousalova I, Sreter KB. How to give and receive feedback effectively. Breathe. 2017 Dec 30;13(4):327–33.
- Morris C, Chikwa G. Audio versus written feedback: Exploring learners' preference and the impact of feedback format on students' academic performance. Act Learn High Educ. 2016;17(2):125–37.
- Carless D, Boud D. The development of student feedback literacy: enabling uptake of feedback. Assess Eval High Educ. 2018;43(8):1315–25.
- Kofou I. A pilot study on conditions under which assessment of and feedback on written

- assignments affect learning. Res Pap Lang Teach Learn. 2019;10(1):117–33.
- Van Ginkel S, Gulikers J, Biemans H, Noroozi O, Roozen M, Bos T, et al. Fostering oral presentation competence through a virtual reality-based task for delivering feedback. Comput Educ. 2019;134:78–97.
- Wisniewski B, Zierer K, Hattie J. The Power of Feedback Revisited: A Meta-Analysis of Educational Feedback Research. Front Psychol. 2020;10.
- Double K. The Impact of Peer Assessment on Academic Performance: A Meta-analysis of Control Group Studies. 2018;
- Iatsyshyn A V., Kovach VO, Lyubchak VO, Zuban YO, Piven AG, Sokolyuk OM, et al. Application of augmented reality technologies for education projects preparation. CEUR Workshop Proc. 2020;2643:134–60.
- Shepard LA, Penuel WR, Pellegrino JW. Using Learning and Motivation Theories to Coherently Link Formative Assessment, Grading Practices, and Large-Scale Assessment. Educ Meas Issues Pract. 2018;37(1):21–34.
- Wanner T, Palmer E. Formative self-and peer assessment for improved student learning: the crucial factors of design, teacher participation and feedback. Assess Eval High Educ. 2018;43(7):1032–47.
- Al-Hattami AA. The perception of students and faculty staff on the role of constructive feedback. Int J Instr. 2019;12(1):885–94
- Wylie EC, Lyon CJ. Developing a Formative Assessment Protocol to Support Professional Growth. Educ Assess. 2020;
- Shirey MR. Giving and receiving feedback. J Contin Educ Nurs. 2012;43(6):243-4.
- Pigden L, Jegede F. Thematic analysis of the learning experience of joint honours students: their perception of teaching quality, value for money and employability. Stud High Educ. 2020;45(8):1650–63