

Evaluation of the performance of lecturers in general surgery by 4th- and 6th-year MB ChB students at the University of Limpopo, Polokwane, South Africa

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Background. Students' evaluation of teaching performance is one of the important means of measuring the quality of higher education worldwide. Students are valuable contributors to improvement of the teaching performance of lecturers. For any academic institution, it is very important to receive feedback on teaching quality from students.

Objectives. To determine lecturers' performance as evaluated by undergraduate students in general surgery, with the aim of identifying the lecturers' strengths and planning tactics for any necessary improvement measures.

Methods. This study followed a descriptive research design to evaluate seven lecturers in general surgery by 4th- and 6th-year MB ChB students at the University of Limpopo, Polokwane, South Africa.

Results. Seven lecturers were evaluated by the students. From the study results, there is strong evidence that the majority of the participants were satisfied with 5/7 lecturers' interpersonal skills and communication and presentation style, including an overall rating ($p < 0.0001$). Two lecturers were considered by the students to require some level of improvement in performance ($p < 0.0001$).

Conclusion. General surgery students expressed satisfaction with the teaching performance of most members of the academic staff. However, some lecturers need to improve with regard to audibility and preparation for slide presentations.

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Students' evaluation of teaching performance is one of the important means of measuring the quality of higher education worldwide.^[1,2] Informal student evaluations of faculty members were started in the 1960s by enterprising college students.^[3] Student evaluation can be used as a component of faculty evaluation for personnel decisions such as tenure, promotion and merit.^[4]

Students are important contributors to improvement of the teaching performance of lecturers. For any academic institution, it is very valuable to obtain feedback from the students on their lecturers.^[5] Lecturers teach regularly, and they need to know whether the teaching initiatives and strategies they use are effective and well received by students.^[6] Course and lecturer evaluation by students is an important exercise that should be undertaken on a regular basis by academic institutions. It enables both lecturers and the institution to know what students think of the courses being taught, the people who are teaching, and the institution itself.^[5]

Evaluation of lecturers' teaching effectiveness by students is probably a highly accurate measure of student satisfaction generally.^[3] The process of improving the quality of higher education is a dynamic one, and universities should continuously improve their teaching based on students' perceptions.^[7] Utilising students' perceptions to improve the quality of higher education is a common practice in almost every university across the globe.^[8] Evaluating courses through student feedback has been included as one of the key mechanisms in internal quality-assurance processes as a way of demonstrating institutions' performance in accounting and auditing practices.^[9]

An evaluation may impart important information that a teacher can use for formative change in the classroom. Evaluations by students are vital and a catalyst for improvement in the classroom: 'a good evaluation should assist faculty to help their students learn their best'.^[4] Interaction between class size and response rate has a

significant effect on students' evaluation of instructors and courses in higher education.^[10] It is essential for academic institutions to know students' opinions about their lecturers; this also provides an opportunity to outline students' needs.^[11]

The 6-year MB ChB course at the University of Limpopo in Polokwane, South Africa, started in 2016. General surgery is included in the 4th and 6th years, with 5- and 6-week modules, respectively. Every 5 or 6 weeks, a new group of students rotates through general surgery. The first group of 4th-year MB ChB students rotated through general surgery in 2019, followed by the first group of 6th-year students in 2021. No formal evaluation of teachers by the students was conducted in the general surgery department at this time. General surgeons are involved in teaching in addition to their core clinical work. One consultant is responsible for one surgical firm/unit for clinical activity. The main purpose of the study reported here was to determine the performance of lecturers in general surgery as evaluated by undergraduate students. It was hoped that providing feedback to the lecturers on their teaching performance would enable them to do some self-reflection and ultimately take the necessary steps to improve their performance. Identifying lecturers' strengths and weaknesses would also help the head of the Department of General Surgery and the university to tactically plan any necessary improvement measures in the near future.

Methods

This study followed a descriptive research design to evaluate seven lecturers in general surgery by 4th- and 6th-year MB ChB students at the University of Limpopo. General surgery is included in the 4th and 6th years of study, with the duration of the modules 5 and 6 weeks, respectively. In total, ~100 - 110 students rotated through the department in both the 4th and 6th years, with an average of

10 - 14 students in the 4th-year groups and 10 - 12 students in the 6th-year groups. The 48 participants in the study comprised two groups of students, from the 4th and 6th years. The questionnaires were administered in such a way that the students were anonymous, to avoid fear of victimisation. The questionnaires were distributed in the lecture rooms and collected after completion. Each student was given seven forms for seven lecturers, who were coded with numbers 1 to 7 as their unique identifiers. Each lecturer was uniformly evaluated by a maximum of 23 students selected randomly from the population of 48, so that an equal number of students evaluated the lecturers. Descriptive statistics, frequencies, means and standard deviations were used to analyse the data. One-way analysis of variance was used to assess the level of difference between the participants' evaluations of the lecturers' performance on the two indicators evaluated, i.e. interpersonal skills, and communication and presentation style. The overall rating was analysed in a similar manner. Open-ended comments and suggestions were also considered and presented in themes for analysis.

On the questionnaire, the student indicated their year of study, the lecturer's name, the module and the academic year. An introduction to the questions emphasised the importance of the survey and why students should take it seriously.

The evaluation form comprised two sections: section A on interpersonal skills, and section B on communication and presentation style. Each section had sub-questions, 8 on interpersonal skills and 15 on communication and presenting style, making a total of 23 questions. Categorical scoring of 0 - 3 was used, i.e. 'never' = 0 points, 'seldom' = 1 point, 'usually' = 2 points, and 'always' = 3 points. Scoring each component using these scales resulted in a total point range of 0 - 69 by 23 participants per lecturer. The scored items were translated to a percentage out of 69 total points and then to scores for analysis. Finally, students gave an overall rating between 1 and 10 points (1 being very poor and 10 highly excellent) for each lecturer. One form was used for each lecturer.

After the data were collected, analysis was done using the Statistical Package for the Social Sciences (SPSS), version 28 (IBM Corp., USA). Forms were excluded from the analysis if the lecturer's name was not given. The questionnaires were captured on an Excel spreadsheet, version 2013 (Microsoft Corp., USA) for cleaning and prepared for analysis. Evaluations of seven individual lecturers were analysed. Formal permission to conduct this study was granted in the form of a letter from the School of Medicine, and permission was also obtained from the students. Confidentiality and anonymity were ensured by omitting the participating students' personal details.

Results

The results are summarised in Tables 1 and 2. For interpersonal skills, 5 of the 7 lecturers (lecturers 1, 2, 3, 6 and 7) scored >92%, equivalent to a score of 2.76, meaning that these lecturers have excellent interpersonal skills. Lecturers 4 and 5 scored <90%, equivalent to a score <2.7, with 2.65 for lecturer 4 and 2.60 for lecturer 5. The results show that the lecturers were considered to have significantly different interpersonal skills, with lecturers 6 and 7 scoring higher (94.8%, equivalent to a score of 2.84) in interpersonal skills than the others ($p<0.05$).

For communication and presentation style, 5 of the 7 lecturers (lecturers 1, 2, 3, 6 and 7) scored >90%, which is equivalent to a score of 2.7 meaning that these lecturers have excellent communication and presentation style. Lecturers 4 and 5 scored <90%, equivalent to a score of <2.70, i.e. 2.45 for both. Good communication and presentation style included the following: usually sets out outcomes for each lesson; transfers information in an understandable way; asks

questions in class; is enthusiastic about the subject; gives opportunities for students to ask questions in class; gives opportunities for exercises in class; relates subject matter to the workplace; is always on time for class; has a dynamic and interesting presentation style; speaks clearly and audibly in class; notifies the students when he/she will be absent; is prepared for lectures; ends the lecture at the correct time; uses a variety of educational media (e.g. data projector); and applies a wide range of teaching strategies (e.g. group discussions, on-line activities, tutorials, field excursions). The results show significant differences in scores for communication and presentation style, with lecturer 6 scoring higher (95.0%, equivalent to a score of 2.85) than the others ($p<0.0001$) (Table 1).

Lecturer 6 therefore had both excellent interpersonal relationship skills (2.84) and communication and presentation style (2.85), which were superior to those of the other lecturers.

With regard to overall rating, the students gave lecturer 7 the highest score, 9.26 out of 10, equivalent to excellent performance. Table 2 correlates the overall rating with both interpersonal relationship skills and communication and presentation style. The results indicated that there is a strong correlation between participants' overall rating (mean score 2.62) and interpersonal relationship skills (mean score 2.75; Pearson correlation coefficient 91.8%; $p<0.0001$) and communication and presentation style (mean score 2.71; Pearson correlation coefficient 90.4%; $p<0.0001$). Participants' feelings about lecturers' interpersonal skills and communication and presentation style therefore correlate positively with their overall feeling about the lecturers. When participants' rating of lecturers' performance in terms of the performance indicators was compared with comments emerging from the open-ended questions, lecturer 7 scored higher for both the performance indicators in relation to the comments provided, while lecturers 4 and 5 scored lower.

The study presents strong evidence that the majority of the undergraduate students in general surgery who participated are happy with regard to the interpersonal skills and communication and presentation style of lecturers 1, 2, 3, 6 and 7, including the overall rating ($p<0.0001$). However, lecturers 4 and 5 require some level of improvement, as reflected by attitudes to their performance on the part of the students ($p<0.0001$).

Discussion

This study explored the evaluation of lecturers in general surgery by undergraduate MB ChB students in their 4th and 6th years. It is the department's first step towards assessing teachers' performance by student evaluation. We will gradually extend our assessment methodologies in line with the students' evaluation to improve the performance of teachers in the department. In this study, all the lecturers' performance was rated good; the average score in all 23 components was >2.5 out of 3, with an overall rating >7 out of 10. However, the results also revealed certain challenges, related to individual lecturers as well as departmental matters.

While it is of course common practice for lecturers to assess students' performance in various ways, students only have limited means of assessing their lecturers' performance and expressing their opinion. Course and lecturer evaluation by students reflects on qualities associated with good teaching such as lecturers' knowledge, clarity, classroom management and course organisation.^[6]

Although course and lecturer evaluation by students is increasingly considered to be an important exercise in academic environments, it appears that students sometimes do not attach a lot of importance to it. One key issue in students' evaluation of teachers and lecturers is the question of how competent students are to make judgements on teaching and course quality.^[12] In our study, the scores provided

Table 1. Descriptive summary of the students' evaluation of the lecturers

Variable	Questions, N	Average %	Score	SD	F	df	p-value	F crit
Interpersonal skills					3.3859	55	0.0071	2.2904
Lecturer 1	8	92.6	2.78	0.0539				
Lecturer 2	8	93.1	2.79	0.0578				
Lecturer 3	8	92.2	2.77	0.0409				
Lecturer 4	8	88.2	2.65	0.0522				
Lecturer 5	8	86.8	2.60	0.042				
Lecturer 6	8	94.8	2.84	0.0337				
Lecturer 7	8	94.8	2.84	0.049				
Communication and presentation style					10.3257	104	<0.0001	2.1925
Lecturer 1	15	94.2	2.83	0.0505				
Lecturer 2	15	94.2	2.83	0.0551				
Lecturer 3	15	94.7	2.84	0.0354				
Lecturer 4	15	81.6	2.45	0.1133				
Lecturer 5	15	81.7	2.45	0.1008				
Lecturer 6	15	95.0	2.85	0.0273				
Lecturer 7	15	91.5	2.74	0.0848				
Overall rating								
Lecturer 1	1	90.4	9.04					
Lecturer 2	1	92.2	9.22					
Lecturer 3	1	91.74	9.17					
Lecturer 4	1	77.83	7.78					
Lecturer 5	1	75.22	7.52					
Lecturer 6	1	91.74	9.17					
Lecturer 7	1	92.61	9.26					

SD = standard deviation; df = degrees of freedom; F crit = F critical value.

Table 2. Correlation analysis between overall rating and components of performance

Variable	Analysis
Overall rating	
Mean (SD), %	87.4 (7.5)
Pearson correlation coefficient	1
p-value	-
N	7
Interpersonal relationship skills	
Mean (SD), %	91.8 (3.1)
Pearson correlation coefficient	0.959
p-value	<0.0001
N	7
Communication and presentation style	
Mean (SD), %	90.4 (6.1)
Pearson correlation coefficient	0.964
p-value	<0.0001
N	7

SD = standard deviation.

by the students in the interpersonal skills performance indicators, with a mean of 2.75, correlated positively with the overall rating of 9 (Pearson correlation coefficient 91.8%; $p < 0.0001$), as did the scores for communication and presenting style, with a mean of 2.71 and an overall rating of 9 (Pearson correlation coefficient 90.4%; $p < 0.0001$). However, according to Inko-Tariah,^[13] many people believe that students may not be sufficiently objective in evaluating their lecturers.

Student evaluations have high levels of reliability and validity and should always be part of the process used to evaluate teaching. There

are certain aspects of a course that students are in no position to evaluate, however, including whether the course learning objectives are appropriate, whether the content is in line with the current state of knowledge in the field, and whether the course adequately prepares the students for subsequent courses in the curriculum. These aspects can only be evaluated by knowledgeable peers.^[14] Keane and Labhrainn^[12] reported that colleagues can assess a lecturer through peer observation, that the head of department can also do this, and that self-reflection can be used. All these methods can be used in conjunction with another method.^[12]

Pezzella *et al.*^[15] compared the performance of students in classes of large size with that of students in small classes to assess the efficacy of student learning in large classes.^[15] The results of that study indicated that large classes are as efficacious as small classes. In our study setting, the number of students was relatively low (between 10 and 14 students per group). Although students' comments about all the lecturers were generally positive, the majority of the students complained that certain lecturers were not audible in class. We therefore recommend that heads of departments should engage with these lecturers where indicated.

There is evidence in the literature that higher evaluations of teachers are given by students who found the course easier than they expected compared with those who found it harder than they initially anticipated.^[16] We could not analyse this aspect in the present study because we did not look at the students' credentials, and we also kept participants anonymous.

Other student comments complained about rescheduling tutorial times, which negatively affected their preparation for the topic. Although the criticism is justified, it has to be borne in mind that consultants are primarily responsible for their clinical work and patient care takes priority, particularly in emergency situations.

There is a shortage of doctors in Limpopo Province, particularly of specialists in general surgery,^[17,18] and the current specialist allocation is only one per surgical firm. The Department of Health in conjunction with the university should recruit more surgeons, which would improve clinical work performance as well as our teaching efficacy. Returning to the student comments that certain lecturers were not clearly audible, in spite of making a good effort, this can be explained by the fact that several of our lecturers are from different parts of the globe and therefore have a range of accents, but they are performing well in clinical work. However, transfer of knowledge will be more effective and productive if it is done in clearly spoken language, and these lecturers should make an effort to improve their English. With a reminder that it is important to practise one's accent in order to improve one's spoken English, Maurin^[19] has provided some useful tips for doing this. In addition to increased efforts on the part of the lecturers personally, we recommend that the university assist by organising English courses for those lecturers who need them. This will be of considerable benefit to the students.

The performance of students who have completed a course is another way of evaluating a lecturer's performance, but this may not always be adequate.^[5] However, if students consistently report that someone's teaching is good or bad, they are almost certainly right.^[14] To be an excellent lecturer, one needs to master delivery techniques and to establish a good relationship with the students.^[20] Education has been changing rapidly over time, and modernisation has greatly influenced the current curricula. The learning style and preferences of students have been in accordance with these trends.^[21] The university should provide the utmost support to teacher development programmes to achieve effective teaching.

Conclusion

Students generally expressed satisfaction with the teaching performance of the academic staff in general surgery. However, some lecturers need to improve with regard to preparation for slide presentations and ensuring that they speak clearly and audibly. On the basis of the study results, we recommend workshops and teacher development programmes in order to facilitate more effective teaching. Furthermore, we recommend that the Department of Health in conjunction with the university recruit more surgeons in order to improve performance of clinical work as well as teaching efficacy.

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1. Ginns P, Prosser M, Barrie S. Students' perceptions of teaching quality in higher education: The perspective of currently enrolled students. *Studies Higher Educ* 2007;32(5):603-615. <https://doi.org/10.1080/030750701573773>
2. Vijay A. Appraisal of student rating as a measure to manage the quality of higher education in India: An institutional study using Six Sigma model approach. *Int J Qual Res* 2013;7(3):3-14.
3. Bemile RK, Jackson OA, Ofosu JB. Course and lecturer evaluation by students at higher institutions: Review and challenges (the case of Methodist University College Ghana). *Open Science Repository Computer and Information Sciences*, 2014:e45011821. <https://doi.org/10.7392/openaccess.45011821>
4. Kelly M. Student evaluations of teaching effectiveness: Considerations for Ontario universities. Toronto: Council of Ontario Universities, 2012. <https://cou.ca/wp-content/uploads/2015/07/Academic-Colleagues-Paper-Student-Evaluations-of-Teaching-Effectiveness.pdf> (accessed 6 August 2022).
5. Huemer M. Student evaluations: A critical review. *PhilPapers*, 2005. <https://philpapers.org/rec/HUESEA> (accessed 6 August 2022).
6. Chuan CL, Heng RKK. Students' ratings of teaching effectiveness: What do students tell us about their teacher education lecturers? http://www.iced2014.se/proceedings/1536_Chua%20POSTER.pdf (accessed 6 August 2022).
7. Konting MM, Kamaruddin N, Man NA. Quality assurance in higher education institutions: Exit survey among Universiti Putra Malaysia graduating students. *Int Educ Stud* 2009;2(1):25-31. <https://doi.org/10.5539/IES.V2N1P25>
8. Zabaleta F. The use and misuse of student evaluations of teaching. *Teach Higher Educ* 2007;12(1):55-76. <https://doi.org/10.1080/13562510601102131>
9. Blackmore J. Academic pedagogies, quality logics and performative universities: Evaluating teaching and what students want. *Stud Higher Educ* 2009;34(8):857-872. <https://doi.org/10.1080/03075070902898664>
10. Al Kuwaiti A, Al Quraan M, Subbarayalu AV. Understanding the effect of response rate and class size interaction on students evaluation of teaching in a higher education. *Cogent Educ* 2016;3(1):1204082. <https://doi.org/10.1080/2331186X.2016.1204082>
11. Gül H. Evaluation of lecturer performance depending on student perception in higher education. *Egitim ve Bilim* 2010;35(158):158.
12. Keane E, Labhrainn IM. Obtaining student feedback on teaching & course quality. Briefing paper 2, April 2005. <https://www.universityofgalway.ie/media/celt/files/coursedesign/ReviewofTeachingEvaluationMethods.pdf> (accessed 6 August 2022).
13. Inko-Tariah DC. Attitude of lecturers towards student's evaluation of their teaching effectiveness in Nigerian universities. *J Educ Pract* 2013;4(15):21-26.
14. Felder RM, Brent R. Random thoughts: Student ratings of teaching - myths, facts, and good practices. *Chem Eng Educ* 2008;42(1):33-34.
15. Pezzella FS, Paladino A, Zoller C, Mandery E. The efficacy of student learning in large-sized criminal justice preparatory classes. *J Crim Justice Educ* 2014;25(1):106-130. <https://doi.org/10.1080/10511253.2013.875214>
16. Addison WE, Best J, Warrington JD. Students' perceptions of course difficulty and their ratings of the instructor. *College Student J* 2006;40(2).
17. Dell AJ, Kahn D. Surgical resources in South Africa: A review of the number of functional operating theatres. *S Afr J Surg* 2018;56(3):2-8.
18. Ntuli ST, Maboya E. Geographical distribution and profile of medical doctors in public sector hospitals of the Limpopo Province. *S Afr J Prim Health Care Fam Med* 2017;9(1):1-5. <https://doi.org/10.4102/phcfm.v9i1.1443>
19. Maurin M. Improve your accent with these 5 simple tricks. *Babbel Magazine*, 29 March 2022. <https://www.babbel.com/en/magazine/how-to-improve-your-accent-with-these-5-simple-tricks> (accessed 13 August 2022).
20. Samian Y, Noor NM. Student's perception on good lecturer based on lecturer performance assessment. *Procedia Soc Behav Sci* 2012;56:783-790. <https://doi.org/10.1016/j.SBSPRO.2012.09.716>
21. Regine H, Cogling DT. Teacher training and development. March 2017. <https://doi.org/10.13140/RG.2.2.33433.65126>

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