Comparison of Objective Structured Viva voce with Traditional Viva Voce

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Abstract

Background: Viva Voce tests all levels of knowledge, subtle skills, proper attitude & professional competence of a person. It also tests interactive or communicative skills which are essential for a good doctor. Therefore if viva voce is judiciously or appropriately combined with an objective written test leads to sensible evaluation.

Aims & Objectives: Viva Voce is a good evaluation technique but present day viva is quite often dependent on whims & personal prejudice of examiners. So OSVV could help us to have a more objective approach towards the student.

Methods: 50 students of I M.B.S.S. (were selected. Divided into two groups of 25 students. The questions were prepared & validated trained the teachers to help them to conduct the OSVV. Two sets of teachers one conducting traditional viva & another conducting OSVV was done on two days. The questions for OSVV were common for all on one day & so the students were not allowed to interact with each other. After the viva the students were allotted marks out of 10 & were given feedback forms. & the teachers were also given a feedback forms where questions were graded on a Likert’s scale of 1-5 (1-strongly agreed to 5-strongly disagreed) as well as Yes and No. The data was stastically analysed by using SPSS software

Results: The students mean score for the OSVV was 6 which was higher but not significant. The student’s perception from the feedback form was found to be strongly in favour of conducting a OSVV.

Conclusion: OSVV is appreciated by the students & faculty, so 50% of the marks out of the marks that are allotted for viva could be based on OSVV for the evaluation

Key Words – OSVV, Traditional, Student’s, perception, feedback.

Introduction

Oral viva or viva voce is a face to face interview of the student by the examiner. In technical and professional courses, oral examination is a very important component of evaluation (1). The traditional viva consists of a largely unstructured oral examination. Two examiners preside over a single candidate for a fixed time-frame and a number of topics are usually covered, providing the candidate with some opportunity to demonstrate the extent of knowledge he or she has. The examiners then decide by consensus on the number of marks to be allotted to the candidate in his absence (2, 3).

Viva Voce is a good evaluation technique It can test all levels of knowledge (cognitive, psychomotor, affective domains), subtle skills, proper attitude and professional competence of a person. It also tests interactive or communicative skills, which are essential for a good doctor. Viva provides an opportunity for studying personal characteristics, permits flexibility in questioning and allows tailoring questions according to the needs of the candidate, within the framework of the examination. This type
of examination is very useful for clinical diagnosis in medicine as in depth knowledge as well as ability to think coherently under pressure of the student can be assessed (2,4,5) which is important for medical professionals. The students also have an opportunity to defend his or her statement.(2,6). A method which is used for assessment within any academic curriculum is generally measured in terms of the psychometric properties of reliability, validity & objectivity. (6).The viva voce though used as a method of assessment lacks these properties.

Viva is normally a summative assessment method but it can also be used for formative assessment, as it can provide useful feedback to a student in the absence of direct ranking or grading.(2). Oral examination using traditional viva lacks formal structure and therefore is prone to error, bias and inter examiner variability, (7, 8, 9) which are unrelated to knowledge and thus making the viva as much a test of the candidate’s personality than his academic ability. (8,10,11,12,13) Therefore if viva voce is judiciously and appropriately combined with an objective written test, can be good evaluation method. Validity, reliability and objectivity of the oral examination can be improved by various steps. This kind of improvement leads to an Objective Structured Viva Voce (OSVV).

Aims & objectives

In the present evaluation system, viva is a part of summative system. But in this evaluation system there is no reliability, validity & objectivity. There is a lot of influence on judgment; there can be repetitions of question as system are not divided during oral examination. This type of system also does not satisfy the student, therefore to bring objectivity to this instrument of evaluation there is need to have a structured viva.

- Introduction of objectivity in viva voce and adapt this as an evaluation tool.

Materials & methods

An Ethical clearance from ethical clearance committee of our Medical College was taken. Consent was also taken from the students before they were enrolled in the study.

A few topics from the Biochemistry curriculum were selected and questions were framed from the must know, desirable to know and nice to know area of the curriculum from all the three domains of learning the cognitive, affective & psychomotor. The Questions framed were clear, grammatically correct, short, precise, unequivocal, relevant, valid and covering all sub-topics. The questions were categorized as easy, difficult and very difficult. The departmental faculty validated the questions and question bank was prepared with answers (key) and a proper marking system was also prepared for each question.

The departmental faculty was trained through a role play. During the role play more emphasis was laid on the following points.

1. Ask the examiner to stick to time schedule.
2. Greet the students, make him comfortable and while asking the questions proceed from easy to difficult questions.
3. Examiner should be courteous and should not contradict the candidate. Do not distract the candidate.
4. Examiner should try and know what the candidate knows than otherwise.

A batch of 50 students of 1st M.B.B.S were selected and divided into two groups of 25 students each. The students gave their consent. Traditional viva and OSVV was conducted. The batch of 25 students who
appeared on day 1 had to first appear for a traditional viva and then an OSVV. Similarly on day two the other 25 students appeared for both traditional viva and OSVV.

The students were asked to sit in a common class room without their bags and mobile phones with them.

Two faculty members who were to examine the students for OSVV selected the questions from the question bank with the answer and marking system. The no of questions asked were 6 questions with two having sub-questions and all the questions were the same for that day. The total marks allotted for both the viva were 10 each. The two faculty members who were examining the students for the traditional viva were not aware of the OSVV questions. A fresh set of questions were selected for the second day from the question bank. A time keeper was not placed outside the examination room where the traditional viva was conducted but the teachers themselves kept the time schedule for 10 minutes, but a time keeper was placed outside the examination room where the OSVV was conducted and exact 10 minutes were allotted.

As per their Roll Numbers the students had to appear for a traditional viva and then proceed for the OSVV. After the OSVV the students were given a feedback form and had to move away from the examination area so that they would not interact with the students who had not finished their viva. The faculty members were also given the feedback form. The data was stastically analysed by using SPSS software.

Results
The numbers of student enrolled for the study were 50 but 8 students dropped out and hence the number of students who appeared for the viva were 42.

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<th>Traditional Viva</th>
<th>OSVV</th>
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<td>Mean of Marks out of 10</td>
<td>5.2</td>
<td>6.0</td>
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where $P>0.05$

The response to questions of feedback forms were based on Likert’s scale of 1-5
(Strongly agree-1, agree-2, uncertain-3, disagree-4, strongly disagree-5)

67% of the students strongly agreed that it was easier to answer the questions in comparison to 5% who strongly disagreed. This suggests that questions were direct and therefore easier to answer. Here also again 49% strongly agreed, 24% agreed and only 5% disagreed which proves that when questions have a proper marking system and therefore students felt that they was proper justice done.
The questions before being posed to the students were framed and validated and not just composed and posed to the students randomly which is done normally during traditional viva hence 50% strongly agreed and 39% agreed and there was not a single student who strongly disagreed except 3% of the students disagreed.

The response to questions from the feedback form based on Yes or No Fig-5 and 6 92% students said that they can score better in OSVV as the questions are systematically framed, validated and with proper marking system.

80% of students and 79% of the faculty agreed that it should be introduced at the university level as they are objective, framed systematically and not random.

Discussion

New and emerging ideas are being used for assessment of students such as objective structured clinical examination (OSCE) (21) and objective structured practical examination (OSPE) (22) which are more reliable and objective in their approach towards assessment. Similarly as seen in traditional viva where each candidate can receive a different assessment in relation to the content from either examiner or both examiners and this depends totally on the examiners. Sometimes the examiner totally concentrates on his subject of interest leading to bias. (2) Therefore this study was undertaken to bring objectivity, reliability and validity to the assessment system.

In the study as seen in Table 1 which depicts the mean of marks scored by the students, where P>0.05. The difference between the two types of viva was also calculated using Pearson’s Product coefficient by Non parametric Wilcoxon’s Test then (P<0.01). This means that if sample size was increased then p could have been more significant. It also indicates that the students can score better with OSVV which can be compared with the following study. In a study carried out by Ferdousi to compare standard oral examination (SOE) and traditional oral examination (TOE), the numbers of students assessed were 607. The pass percentage in SOE was 94.70% as compared to TOE which was 90.3% and the difference was significant. The Mean marks were 67±0.02 and 57±0.003 respectively (18). Hence if we compare this with our study, if sample size in our study was increased p could have been more significant.

The students and faculty were given feedback forms. The response to the questions was analyzed based on the Likert’s scale. The question as seen in Fig 2: whether it was easy to answer the question in OSVV -67% strongly agreed and only 5% strongly disagreed. Similarly the question in Fig-3, where more justice was done, 49% students strongly agreed, 24% agreed and 5% strongly disagreed. Fig-4, whether questions were more systematically framed in OSVV, 50% strongly agreed and 39% agreed and there was not a single student who strongly disagreed except 3% of the students disagreed.

As seen in all the above questions maximum number of students agree that the questions are easy to answer as they are properly framed, related to the subject, not concentrated on one particular topic, the questions had proper marking system and time allotted for the viva was fixed. The candidates therefore could score his marks depending on his performance. This was possible as the questions were selected from the question bank which contained properly framed and covering all the relevant topics, these were also validated. This system does not exist in traditional viva and hence there could be bias in the traditional viva.
A survey carried out by Manzar S, for traditional viva it was found that there was a lot of bias in the system as subject was not evenly covered (19). In another study by Wass V et al, to estimate reliability for structured oral examination was found to be high if sufficient resources are available (20). It was also observed that traditional viva is a subjective method and is influenced not only by academic but many other factors such as attitude of the candidate (7-9), ethnicity, (11-12) social background and also gender (13). Martyn T stated that unstructured oral examination are unreliable due to poor inter-question correlation in comparison to the other forms of formal assessment (2). Therefore Tuton PJM has stated that by structuring the reliability improves and further it can be improved by structuring the rating system and the reliability can approach that of essay and multiple choice questions (23).

The response to questions from the feedback form based on Yes or No Fig-5 and 6. 92% students said that they can score better in OSVV. In the other question whether it should be introduced at the university level, 80% of students and 79% of the faculty agreed that it should be introduced at the university level.

Similarly in a study carried out by Zelenock both faculty and students agreed that SOE was an appropriate evaluation process and a good faculty and student interaction (5). In another study carried out by Anastakes D.J. for assessing surgical residents found that SOE was useful in the assessment of clinical knowledge and problem solving abilities of the surgical students. Thus the overall reliability exceeded that of traditional oral examination (16). Martyn T Cobourne that if viva is structured it can be used for formative exams as it gives feedback to both students and faculty. As also seen in the MRCGP exams oral component are divided into four minute sections and a blueprint grid is prepared so that large number of topics are covered and there is no repetition (2).

As we know that assessment plays an important role in learning process and viva is a key method of assessment as observed from the feedback forms and mean of marks obtained by the students, though they are not significant due to the small sample size OSVV proves to be a better method of evaluation.

Conclusion

Overall from the above discussion it is observed that traditional viva does not follow the three properties of reliability, validity and objectivity and since an OSVV format has more uniformity and objectivity it can serve as a better assessment tool than the traditional viva. More studies of this kind with increased sample size need to be undertaken to prove its efficacy. If proven to be effective it can be introduced as a part of the formative and summative assessment.

References

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