



*Research Article*

**Evaluation of interactive module for structured abstract writing in 2<sup>nd</sup> year post graduate students of Ayurveda**

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**ABSTRACT:**

**Introduction:** As per MUHS guidelines the postgraduate students should publish 2 scientific papers. Abstract is the first presentation of scientific writing so preference was given to abstract writing. There is a need to develop and evaluate the interactive module for structured abstract writing. So for the educational research project this topic has been selected

**Objective:** PG students will be able to publish different abstracts on different study designs after doing the workshop.

**Methods:** Fifty 2<sup>nd</sup> year MD students of Ayurveda were enrolled for the study. To evaluate the efficacy of interactive module for structured abstract writing, following criteria is used.

1. Pre and Post MCQ test
2. Pre and post feedback
3. pre and post evaluation of abstracts on the basis of contents check list
4. pre and post overall evaluation of abstracts on the basis of questionnaire

Analyze this data with paired t test and Wilcoxon signed rank test.

**Result:** According to paired t test,

1. Mean marks of 50 students are increased in post test (Test statistic  $t = -3.217$ ,  $p$  value  $<0.001$ ).
2. Marks of 50 students in evaluation of abstracts on the basis of contents check list are increased after doing workshop. (Test statistic  $t = -4.000$ ,  $p$  value  $<0.001$ ).
3. Marks of 50 students in overall evaluation of abstracts on the basis of questionnaire after doing workshop. (Test statistic  $t = -3.261$ ,  $p$  value  $<0.001$ ).

By Wilcoxon signed rank test, on the basis of feedback of student, workshop is 85% effective ( $p$  value  $<0.05$ ).

**Conclusion:** A One day hand on training workshop helps to improve knowledge about structured abstract writing.

**KEY WORDS:** Structured abstract, Ayurveda Research, PG Ayurveda

**INTRODUCTION:**

As per MUHS guidelines the postgraduate students should publish 2 scientific papers and they should complete the Basic Research methodology workshop before appearing for final year examination.

In the syllabus of 1<sup>st</sup> year MD and basic

workshop on research methodology includes the topic scientific writing, but still students are not well verse with scientific writing.

So there is a need to develop and evaluate the interactive module for structured abstract writing. Abstract is the first presentation of

scientific writing so preference was given to abstract writing.

For the educational research project the topic was selected as the Evaluation of interactive module for structured abstract writing in 2<sup>nd</sup> year post graduate students of Ayurveda

### Goals of the project -

#### Short term goals

- Evaluation of interactive model for better understanding and writing of structured abstracts
- PG Students will be well verse with all aspects of abstract writing with knowledge of types and contents
- For completion of educational research project taken for advance MET workshop

#### Intermediate goals

- PG students will be able to publish different abstracts on different study designs
- Publication of developed and evaluated interactive module used for better writing of structured abstracts

#### Long term goals

- Will able to work as reviewer of peer reviewed journals for Ayurveda
- Society will get scientific information from structured abstracts
- Ayurveda community will be graced by many scientific publications

#### Specific objectives-

PG students of Ayurveda -

- Will have 80% knowledge about abstract writing, its types and contents with the interactive module
- Will be able to write at least one structured abstract at the end of interactive module within fifteen days
- Will appreciate importance of abstract writing with interactive module

### MATERIALS AND METHODOLOGY:

#### Material:

- Review material about abstract writing,

evaluation assessments and also interactive teaching techniques

- Fifty 2<sup>nd</sup> year Post graduate students of Ayurveda
- Informed consent document
- MCQ for pre and posttest- 10 marks
- Pre and Post feedback questionnaire
- Module evaluation questionnaire
- Abstract evaluation questionnaire- 10 marks
- Abstract evaluation check list as per CONSORT guidelines – 20 marks
- Different Research articles bank
- Auditorium with A.V. Aids

#### Methodology–(project preparation)

- All aspects were reviewed from concern books, articles, web sites, search engines and dictionaries.
- The informed consent document was prepared. After reading and understanding of consent, the signature of the participant (2<sup>nd</sup> year PG students of Ayurveda) was taken with date. Below the participants signature consent was signed by the researcher also.
- Different research articles bank was created for exercise on abstract writing
- MCQ for Pre and Posttest was developed to check the previous knowledge and improvement in knowledge after interactive module about abstract writing.
- Feedback questionnaire was developed with 5 questions and the response was noted before and after the training of abstract writing.
- Abstract evaluation questionnaire was developed on the basis of overall assessment of writing abstract. For overall assessment 10 questions were developed. If the answer was yes then one mark was given and if answer was no then zero mark was given. Total 10 marks were given for over all evaluation of abstract. The overall abstract evaluation was done before and after the training.
- For content analysis of abstract on clinical reporting, the CONSORT GUIDELINE CHECKLIST was used. Total 17 contents were analyzed. For the content number 4, 5 &6 each was given 2 marks and for remaining contents one mark was given to each. Total evaluation of content analysis was done of 20 marks. The content analysis

of abstract was done before and after the training of the abstract writing

- Interactive module evaluation questioner was developed with three questions and response was noted after the training of abstract writing

### Methodology-(Execution preparation)

- Fifty 2<sup>nd</sup> year MD students of Ayurveda were enrolled for the study. For each participant the roll number was given. The information about the project was given as orally and in written format. After reading and understanding of the project by participants, the consent for the project was signed by participants and also duly signed by the researcher.
- After the consent Pretest MCQ was conducted to check the previous knowledge about abstract writing. Question paper and answer sheet separately given to all participants. Ten minutes time was given for appropriate answer choosing. The instructions was given to each participants don't mark on question paper and write appropriate answer on answer sheet. Write down the given individual roll number, date and do the signature duly on answer sheet. Question and answer papers were collected.
- After the pretest, feedback questionnaire was distributed to know the response about abstract writing before training. The instructions were given to participants that please mark the answer as per your response. Don't re-mark one response option or don't change the response given at once. Total five questions were formulated. Roll number should be noted on the right corner of the feedback questionnaire.
- One research article will be given to each participant to write the abstract
- Evaluation will be done on the basis of questionnaire , marks will be recorded on evaluation mark sheets
- After this pre evaluation, the students will go through interactive module of teaching

### Interactive module-

- Study Material on abstract writing will be given to each participants for pre reading
- Lecture will be taken by using audio visual aids with the help of appropriate examples of different types of abstracts and contents of the abstracts
- Small tasks will be given with different research papers to each group of five members for formulation of 1) appropriate catchy title 2) Introduction in two three sentences explaining the problem 3) concise material and methodology writing 4) results 5) development of the Key word
- Presentation of tasks partly by each member of the group
  - After the completion of interactive module
- Post-test MCQ was conducted to check the improvements in knowledge about abstract writing after teaching with interactive module
- The same article was given for abstract writing after the teaching with interactive module the post assessment was be done
- The marks were recorded on evaluation mark sheet
- The analysis was done with appropriate statistical test as qualitative data was analyze by Wilcoxon rank sum test and quantitative data by paired t test

### Assessment criteria –

- The pre and post feedback questionnaires were developed. The responses were given Yes, No. and Not up to the mark for each MCQ. Based on the responses ranks were given as follows for statistical analysis.
- To evaluate efficacy of workshop following criteria is used.
- Pre and Post MCQ test (10 Marks)
- pre and post evaluation of abstracts on the basis of contents check list (20 marks)
- pre and post overall evaluation of abstracts on the basis of questionnaire (10 marks)

**Table No. 1: feedback questionnaire, responses & ranks**

Responses	Rank
Yes	2
Not up to the mark	1
No	0

### Statistical Analysis:

The pre and post feedback questionnaire were analyzed by Wilcoxon signed rank test in SPSS.

To find out the effectiveness of interactive module based on the test marks, paired t-test was applied in SPSS.

### RESULTS:

Total 46 post graduate students were attended this interactive module. Effectiveness of this workshop was analyzed in terms of pre and post feedback questionnaire, pre and post MCQ test, pre and post evaluation of abstracts on the basis of contents check list and questionnaire.

According to pre and post feedback questionnaire, each question showed effective result of interactive module as per table no. 1

According to pre and post MCQ test result, interactive module is helpful to increase the

knowledge about structured abstract writing as per table no. 2

According to pre and post evaluation of abstracts on the basis of contents check list and overall evaluation questionnaire, interactive module is helpful to increase the knowledge about structured abstract writing as per table no. 3 and table no. 4 respectively.

According to feedback of students regarding workshop, it was very useful to improve skills of statistical analysis as per figure 1 and 2

### CONCLUSION:

- Interactive module for structured abstract writing helps to improve abstract writing skills of students.
- From overall assessment criteria, Interactive module for structured abstract writing is effective and the results are statistically significant.

**Table No. 2: Effectiveness of Interactive module for structured abstract writing in terms of pre and post feedback**

Sr. No.	Questions	% Effect	Test Statistic (W)	P value
1.	Are you able to know structured abstract writing?	93	-4.443	< 0.001
2.	Are you able to know the types of the abstracts?	80	-5.052	< 0.001
3.	Are you able to know the contents of the structured abstract?	87	-5.200	< 0.001
4.	Are you able to know the Guideline checklists of the abstracts?	78	-4.681	< 0.001
5.	Are you able to write structured abstracts?	89	-4.261	< 0.001

**Table No. 3: Effectiveness of one day hands on training workshop in terms of pre and post test**

MCQ test	Mean marks	S.D.	N	Test Statistic t	P value
Pre test	5.00	1.673	46	-12.292	<0.001
Post test	8.22	0.964	46		

Mean marks of students were increased in post test significantly (as p value <0.05)

**Table No. 4: Effectiveness of interactive module for structured abstract in terms of Evaluation on the basis of contents of abstract**

Content checklist test	Mean marks	S.D.	N	Test Statistic t	P value
Pre test	5.78	2.699	46	-8.966	<0.001
Post test	9.78	3.272	46		

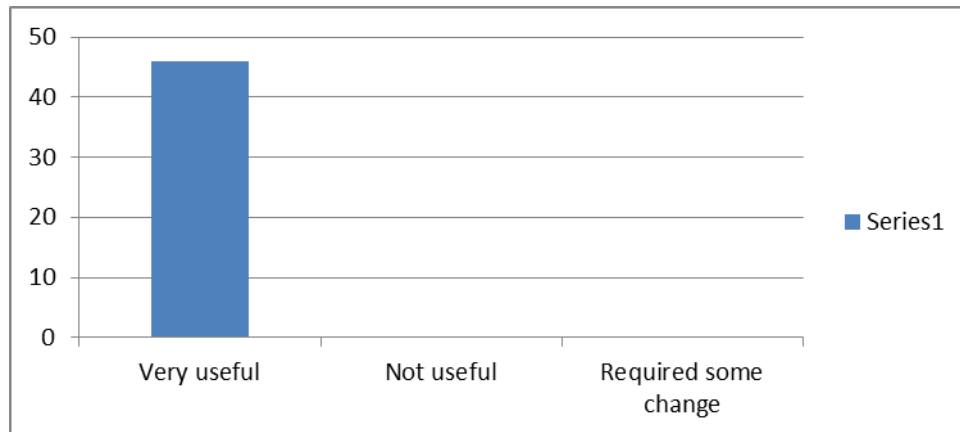
Mean marks of students were increased in post test significantly (as p value <0.05)

**Table No. 4: Effectiveness of interactive module for structured abstract in terms of Overall evaluation**

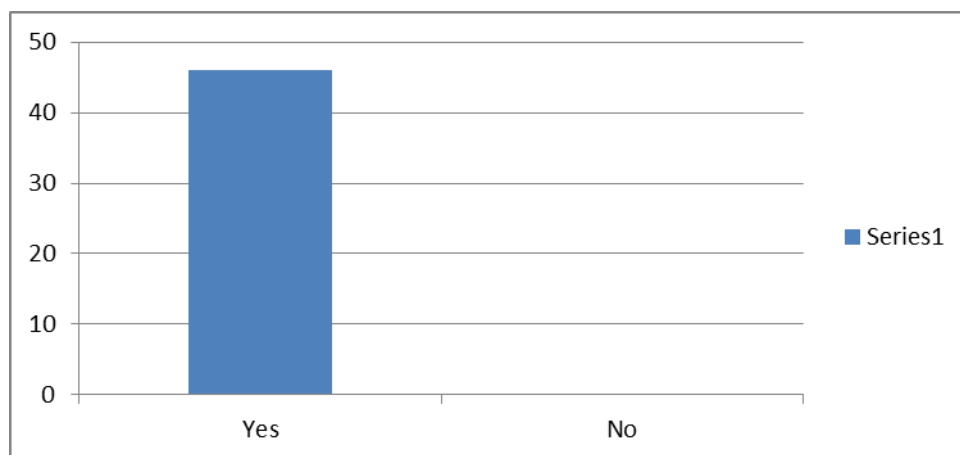
Overall evaluation test	Mean marks	S.D.	N	Test Statistic t	P value
Pre test	4.83	1.637	46	-12.681	<0.001
Post test	8.09	1.697	46		

Mean marks of students were increased in post test significantly (as p value <0.05)

**Graph No. 1: Feedback of students about how they express the one day training workshop**



**Graph No. 2: Feedback regarding workshop is useful to improve skills of abstract writing**



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