

Needs Assessment To Identify The Areas For The Development Of Self Learning Modules In Subject Ashtang Hridaya Of First BAMS Course

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Abstract : Background and Objectives: M The new syllabus for the Ashtang hridaya by CCIM has addition of few more concepts. On the other hand number of lectures for the subject are reduced. It is practically difficult to teach complete syllabus in the given time. In the changed course structure and reduced lecture hours. The classroom teaching hours can be managed by development of self learning modules for the subject. Objectives: To identify the need of self learning modules. To enlist the must know, nice to know and desired to know areas of Ashtang Hridaya. To enlist the areas for Self learning and Classroom teaching. To evaluate efficacy of Self learning e Modules. Materials and Methods : Online Survey Faculties working in the Department of Basic Principles. with Questionnaire (www.qualtrics.com) was conducted. (63 completed Responses) and data was analysed. Development of Self learning eModule:- on the Chapter "Gandushadividhi" in Ashtang Hridaya. Testing of Module. Results: Study indicates that faculty came out with a clear mandate of Need of Self Learning Module.(Chi squared $P < 0.01$) Ashtang hriday syllabus was classified is 18 Chapters in for Must Know(18), Nice to know (4) and desirable to know(7). Chapters were identified for Classroom teaching(20) and self learning(10). Insignificant distribution was observed for 7 chapters. Self learning module created on Gandishadividhi Chapter was tested on I BAMS students by Pre test and Post Tests (with Questionnaire containing 15 Questions) shows statistically significant ($p < 0.001$) results for paired t test. Conclusions: There is certainly need of self learning modules for the I BAMS course. Study distributes in must know, nice to know and desired to know and chapters in Ashtang hridaya and classifies chapters for Classroom teaching and self learning. The self learning e Module shown statistically significant results when evaluated on I BAMS students. [Joshi M et al NJIRM 2013; 4(5) : 138-144]

Key Words: Self Learning eModule, Ayurved, Ashtang Hriday.

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Introduction: Central council of Indian Medicine (CCIM), an apex organization who regulates the Ayurvedic institutes has come up with the change in Course Structure form academic year 2012-13. Previous duration for the first year Ayurvedacharya (IBAMS) is reduced from to 1 year 6 months to 1 year. Though the academic year is expected to start by June month, due to late in admission procedures actual admissions are in September-October Month. Hence actual teaching duration is reduced to 8 months from 12 months in previous structure. The new syllabus for the Ashtang hridaya by CCIM has addition of few more concepts. On the other hand number of lectures for the subject are reduced. It is practically difficult to teach complete syllabus in the given time. This has created a gap.

A Needs Assessment is a systematic exploration of the way things are and the way they should be. Needs assessment is useful to learn about

important issues and problems faces by public in order to design effective educational programmes.

Context of the study: Ashtang Hridaya is one of the subjects for IBAMS course. The subject is based on Basic principles of Ayurved. Ashtang Hridaya is one of the basic three ancient books in Ayurved. A part of the book (Sutrasthana) is included in the syllabus with some additional concepts. As this subject provides fundamental principles in Ayurved. The concepts learned in this subjects works as a foundation for the understanding of Ayurvedic subjects in the subsequent years. A newly admitted I BAMS student find it difficult to go through the Sanskrit text and learn. It is difficult for him to understand new terminology, symptoms and the procedures. The subject is traditionally taught in the classroom teaching. The regular method include reading individual Sanskrit verse from the book, explanation of different terms and meanings in regional language and application of the verse in practice.

In the changed course structure and reduced lecture hours. One expect the students to study some part of the syllabus by himself. The classroom teaching hours can be managed by development of self learning modules for the subject. Students will Study them at home and difficulties can be solved in lectures. Hence it was decided to conduct needs assessment² for the development of the self learning module. The syllabus of Ashtan Hriday is not classified in must know, nice to know and desirable to know. Hence it is difficult to decide which topics must be taught in the classroom teaching and which can be considered for the self learning. Accordingly study was conducted with the following objectives.

Objectives: To identify the need of self learning modules. To enlist the must know, nice to know and desired to know areas of Ashtang Hridaya. To enlist the areas for Self learning and Classroom teaching. To evaluate efficacy of Self learning e Modules.

Material and Methods: Ethics committee approval for the Project was taken from the Institutional ethics committee of Tilak Ayurved Mahavidyalaya, Pune

Development of Questionnaire:- The questionnaire was developed after discussion with Head of the department. It was Peer Review by the departmental faculty. (6 individuals) Online Survey of Faculties working in the Department of Basic Principles. with Questionnaire (www.qualtrics.com) was conducted. Initially survey was planned considering minimum sample size of 24. As survey was online, with repeated reminders and telephonic request it was possible to collect 63 complete responses.

Survey Questionnaire Includes:-

- General Demographic information, Designation, Experience etc.
- Ten questions related to Needs assessment of Self learning Modules.
- Questions requesting classification of 37 points in syllabus of Ashtang Hriday in

- Must know, nice to know and desirable to know.
- Classroom teaching and self learning.
- Feedback on survey
 - Three objective questions.
 - Test message box for responses, opinions and suggestions.

Analysis Of Data: - Data generated by the survey for the classification of the syllabus was analyzed and one chapter which was suggested for the self learning was selected for the development of module.

Development of Self learning eModule:- A self learning e Module was prepared on the Chapter “Gandushavidhi” in Ashtang Hridaya using CREATE principles by Hesketh, Jean Ker and Anne. The Specific learning objects were decided as per Ruiz J G, Michael J et. al. The contents of the e learning modules were

- Original Sanskrit text from the Ashtang Hridaya,
- Explanation in the regional language i.e. Marathi,
- Translation in the English,
- Illustrations of the symptoms,
- Photograph of the Herbs and the formulations,
- Movie clips of the procedures.
- Audio Clip of the explanation.

As the original test is in Sanskrit, it was considered that it is difficult for the students to understand at their own by Gadgil D.P. The audio files of the explanation in regional expressed language was added which can be heard in single click. It was considered that while using the technology an audio clip will provide class like experience (blended experience as per Masie E). In order to maintain interactivity, all the contents were kept of the slide. The student can explore the contents and go through the contents.

Peer reviewing and validation of the E Module: The self learning module was revied by 8 faculty members and necessary corrections were made. As a pilot study the module was tested on the II

BAMS students. II BAMS students have gone through the syllabus and even faced exam on the same topic.

Testing of Module:- The module was used on 51 students of I BAMS in our institute. The Pretest of the students was taken with the help of questionnaire containing 15 questions on the given chapter. The questions were as per the objectives selected for the chapter. Then the self learning module was given to all the students and after completion of the module, approximately after 2 to 3 hours the Post test was taken with the same questionnaire. The scores of the test were recorded and data was analyzed to find out effectively of the module. Feed back of the Students was taken.

Result: Response of survey

Surveys Mailed:-150. (Telephonic request for survey completion 53)

Received responses:- 70. Complete responses: 63.

The Questions for needs assessment of self learning module.

Needs assessment of self learning module.

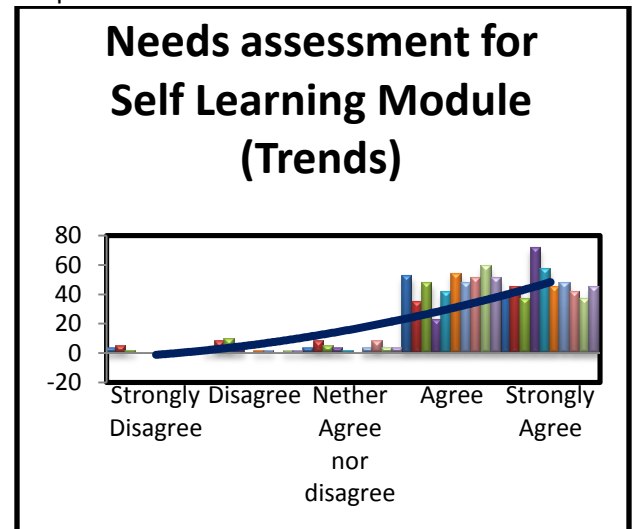
(5 Point Likert Scale) (in %)

- The New syllabus of I BAMS Ashtang Hridaya is not Categorized in Must know, Nice to Know and Desirable to know.
- There is a need to classify the syllabus in Must know, nice to know and desirable to know types.
- Categorization in above types will able to focus on Must know areas of the Syllabus.
- Time for teaching for Ashtang Hriday is comparatively much less.
- It is difficult to complete the syllabus in the available time.
- Teaching the Must Know in lectures, discussion of nice to know and Other portion in the syllabus can be completed with self learning.
- There is a need to create a well designed "self learning e modules" for Ashtang Hriday.
- Self learning Modules will be Helpful for the reducing lecture hours.

- Self learning modules will increase understanding and later difficulties can be solved in Class room.

Self Learning modules will motivate the student for self learning for other subjects.

Graph 1.



Distribution of Ashtang Hriday: Based on the observations in Graph 2. Data was analyzed with the Chi squared test at significance level. Statistically significant ($P < 0.05$) in distribution was observed. Based on that

Chapters for Must know are 01, 12, 10, 11, 04, 13, 09, 02, 08, 03, 14, 17, 19, 16, 33, 20, 18 and 31.

Chapters for Nice to know are 24, 21 and 22.

Chapters for desirable to know 30, 37, 15, 27, 26, 25, 29 and 28.

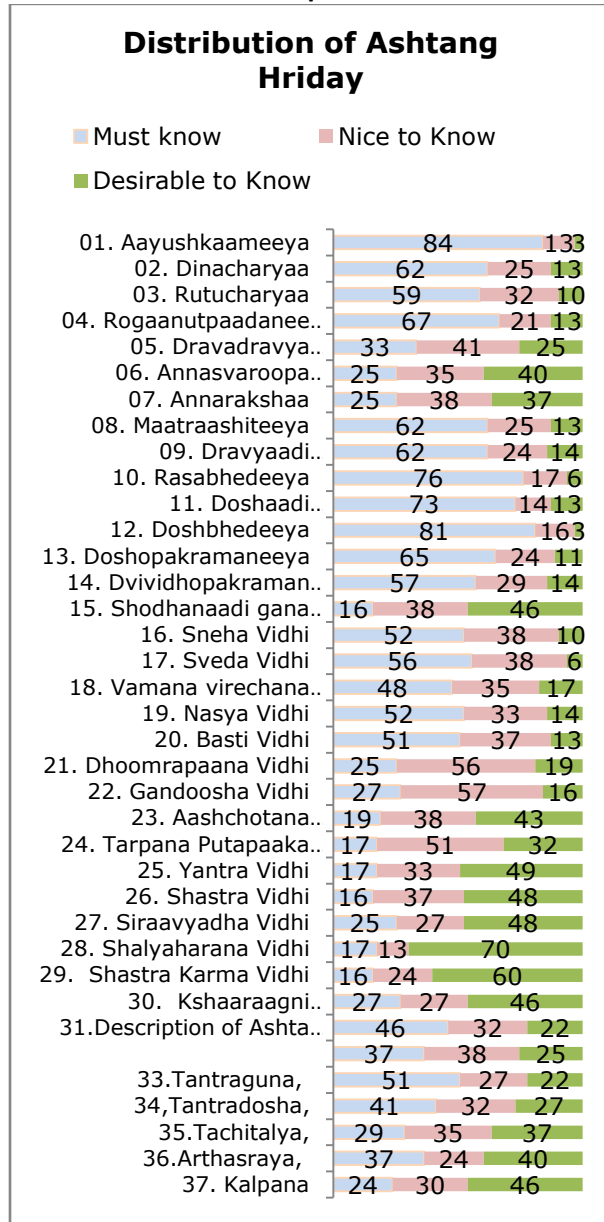
Data shows statistically insignificant ($p > 0.05$) results. Hence it was difficult to categories following chapters in any one category. Chapter numbers are 32. Shastra Lakshan (Tantra), 05. Dravadravaya Vidnyaaneeya, 34. Tantradosha, 35. Tachitalya, 07. Annarakshaa, 36. Arthasraya, 06. Annasvaroopaa Vidnyaaneeya, 23. Aashchotana Anjana Vidhi.

Classification of Ashtang Hridaya:- Data in the Graph three was analyzed at significance level 0.05. Statistically significant results were observed

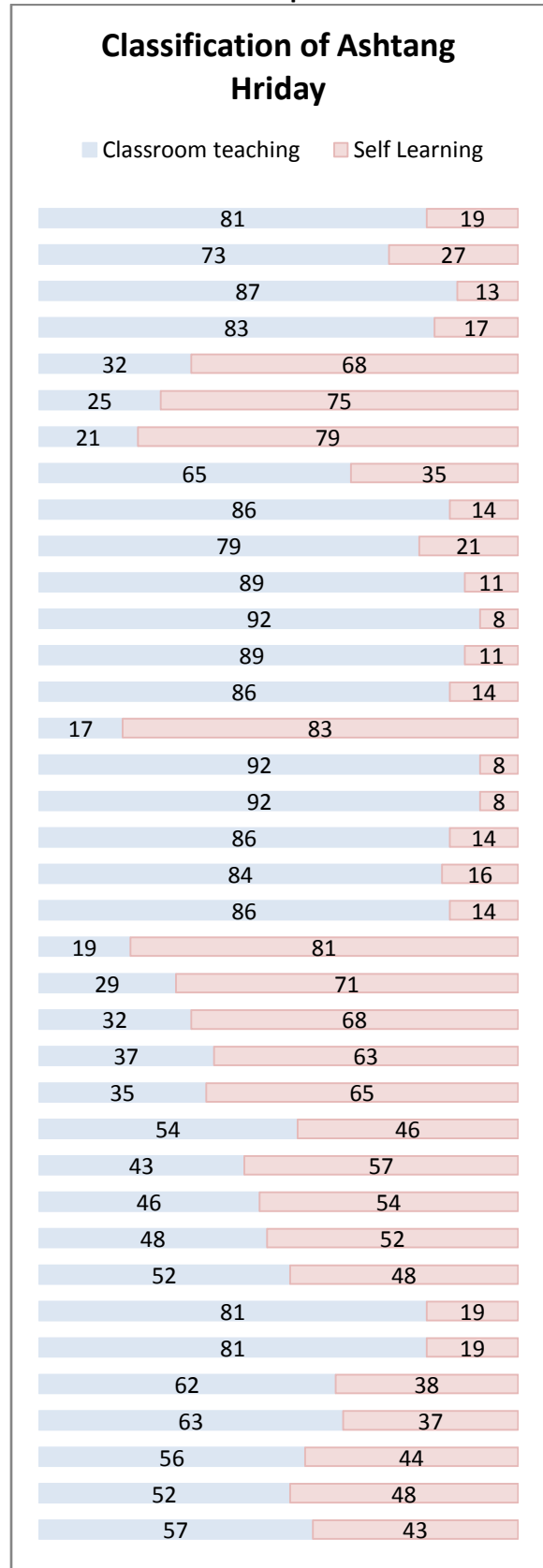
Table: Comparison of Pre test Post Test Scores

t-test(Paired)	Pre test	Post Test
Sample size	51	51
Mean±SD	2.72± 2.5	10.9± 3.2
Test Statistic t		17.12
Two-tailed probability		P < 0.001

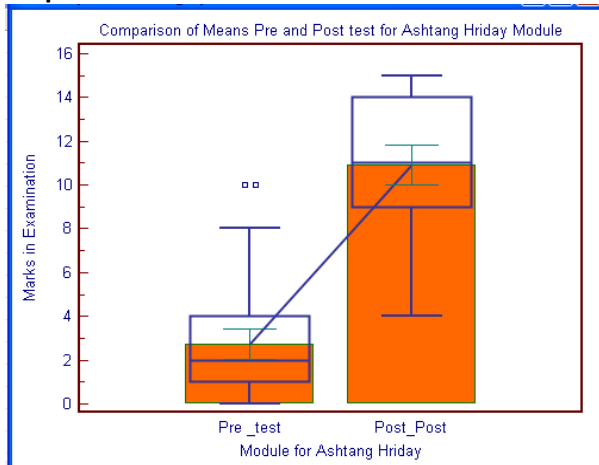
Graph 2



Graph 3



Graph 4



($P < 0.05$) were observed. Based on that Chapters for Classroom teaching are 01, 02, 03, 04, 08, 09, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 31, 32, 33 and 34. Chapters for Self learning are 05, 06, 07, 15, 21, 22, 23, 24, 25 and 27. When the data for the following chapters was analyzed, it was statistically insignificant ($P > 0.05$) difference for chapters 26, 28, 29, 30, 35, 36, 37.

Observations on Self learning module: Self learning module created on Gandishavidhi Chapter was tested on the I BAMS students by Pre test and Post Tests with Questionnaire containing 15 Questions. Scores of 51 Students were analyzed by Paired Chi Squared test. shows statistically significant ($p < 0.001$) results. Data in Table shows improvement in Mean score from 2.72 to 10.9 out of 15.

Discussion: Study was conducted with the support of the online portal (www.qualtrics.com) with the help of technology it become feasible to start, organize, email survey, track, collect and analyze data online. Though the use of technology made it easy to collect data very fast. Still study could not reach to the faculty members who do not use technology and their opinions may differ. Need assessment with questionnaire- Ten questions for the need of self learning module were and framed and five point Likert Scale of Agreement. 92 % responders in the survey agree that it the syllabus is not categorized and 79 % agree that there is need to classify the same. The

remaining 11 % are still with the opinion that categorization is not required and the text as a whole is important. 85 % agree that categorization in above type able to focus on the must know areas of the syllabus. 93 % agree that time for teaching is very less and 98% believe that it is difficult to complete the syllabus. 98 % appreciated and agrees that Teaching the Must Know in lectures, some topics of nice to know and desirable to know portion in the syllabus can be completed with self learning. 96 % agree that There is a need to create a well designed "self learning modules" for Ashtang Hridaya. The books on the Astang Hridaya are available. 92 % agrees that Self learning Modules will be Helpful for the reducing lecture hours and 96 % Self learning modules will increase understanding and later difficulties can be solved in Class room. The overall trend is towards Agree and Strongly Agree. The Chi squared analysis indicates statistically significant difference ($P < 0.001$). Study indicates that faculty coming out with a clear mandate of Need of Self Learning Module. Researches in Medical Education have shown that active learning is always better than passive learning. Interactivity induces active learning in students thereby imparting its advantages like better understanding, more retention, better reproducibility, clarification of doubts and facilitating problem solving, decision making Communicate and collect data.

Classification of the syllabus in Must know, Nice to Know and Desirable to know was analyzed. There are few chapters which are clearly important are classified in Must know, some of less importance in Nice to Know. Many faculties differ in their opinion. The difference of opinion is considering what I BAMS student should know? Some have classified considering the clinical applicability, others think as this a pre clinical year, same topic should be desirable to know. As a result of study classification is 18 Chapters in syllabus for Must Know, 4 chapters in Nice to know and rest for desirable to know.

Same pattern was observed in classification of though the syllabus for classroom teaching and self learning. At the end of data analysis 20 chapters

were identified for Classroom teaching and 10 for self learning. Insignificant distribution was observed for the remaining 7 chapters.

Self learning module has its advantages as indicated by Nair Usha. It was developed on Gandushadividhi Chapter. Research by Adedapo, Y. A et al has shown that the Multimedia used and Audio visual aids has better effect on Cognitionⁱ. The Pre post test has shown significant improvement in the mean scores in test. The student feedback suggests this kind of modules will improve understanding, recall and they can rapidly complete the study. Interactivity in the e Module was appreciated by the students and faculty members. Feedback from the faculty members for the study indicates study much needed and almost everyone who participated wants to learn through such e modules on all the chapters of Ashtang Hridaya.

Conclusion: Study concludes that there is certainly need of self learning modules for the I BAMS course.

Ares for the Must know, nice to know and desirable to know chapters in Ashtang hridaya are identified. Similarly Chapters for Classroom teaching and self learning are enlisted.

The self learning e Module was appreciated by Faculty members and Students. The module has shown statistically significant results when evaluated on I BAMS students.

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