"Textbook Quality Assessment Scale"

Developed by:

**NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE
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Textbook Quality Assessment Scale

The medical student aiming to be a good physician, need to select a standard medical textbook. Acharya Charaka states 'a good medical text with pure knowledge enlightens the whole subject in the manner how sun eliminates darkness and spreads brightness'. Different medical texts (and traditions) are available in society, one has to select the most appropriate one amongst [Ca.Vi8:3].

बुद्धिमानात्मनः कार्यगुरुलाघवं कर्मफलमनुबन्धं देशकालौ च विदित्वा युक्तिदर्शनाद्विषग्बुभूषुः शास्त्रमेवादितः परीक्षेत् विविधानि हि शास्त्राणि भिषजां प्रचरन्ति लोके;
तत्र यन्मन्येत सुमहद्यशस्विधीरपुरुषासेवितमर्थबहुलमाप्तजनपूजितं त्रिविधशिष्यबुद्धिहितमपगतपुनरुक्तदोषमार्षं सुप्रणीतसूत्रभाष्यसङ्ग्रहक्रमं स्वाधारमनवपतितशब्दमकष्टशब्दं
पुष्कलाभिधानं क्रमागतार्थमर्थतत्त्वविनिश्चयप्रधानं सङ्गतार्थमसङ्कुलप्रकरणमाशुप्रबोधकं लक्षणवच्चोदाहरणवच्च तदभिप्रपद्येत शास्त्रम्।
शास्त्रं ह्येवंविधममल इवादित्यस्तमो विधूय प्रकाशयति सर्वम्॥३॥

Textbooks are artefacts. They are a part of schooling that many stakeholders have the chance to examine and understand (or misunderstand). In most classrooms they are the physical tools most intimately connected to teaching and learning. Textbooks are designed to translate the abstractions of curriculum policy into operations that teachers and students can carry out. They are intended as mediators between the intentions of the designers of curriculum policy and the teachers that provide instruction in classrooms. Their precise mediating role may vary according to the specifics of different nations, educational systems and classrooms. Their great importance is constant.
(Valverde et al., 2002: 2)

Textbooks can be defined simply as books which are written for the purpose of teaching and/or learning. The role of the textbook varies greatly from classroom to classroom and teacher to teacher, however Gelfman, Podstrigich, and Losinskaya (2004) provide a basic outline for the intermediary role of the textbook:

➢ To teach and encourage students to construct new knowledge,
➢ To balance detail and precision of information,
➢ To provide logical and consistent mathematical systems,
➢ To bring about new questions,
➢ To provide students with active, creative, many-sided information.

It is evident that there are several books are made available in ASU (Ayurveda, Unani & Siddha) medical systems and every book claims that the book has been written as per Erstwhile CCIM or NCISM syllabus and comprehensively. Amongst some or good and some are of poor quality and were written with vested interest. ASU Institutes are lacking in frame work for identification of good books and recommending the students and in implementing the same in their respective institutes in teaching. Due to this students are trapped by substandard books that is leading to poor quality standards among medical students of ASU systems. Further, due to lack of such frame work erstwhile CCIM or NCISM also include several books indiscriminately as recommended books in the curriculum/ syllabus framed by NCISM for ASU systems. Identifying this issue and its impact on medical systems, NCISM constituted an expert committee for the development of assessment scale for Textbook/ Reference book. The expert committee after thorough deliberations developed the assessment scale for quality assessment of textbooks/reference books. This assessment scale serves the purpose of:

- Selection of quality textbooks by teachers for their students;
- Serving as a reference for textbook writers
- Providing criteria to recommend for inclusion in list of recommended by apex/regulatory bodies

QUALITY ASSESSMENT SCALE FOR TEXTBOOKS

Sr.No.	CRITERIA	SCORE	
		Maximum	Allotted
A. Author Credibility:			
1	Number of Authors: 2 score for each author maximum of 10 (Additional authors are to be considered only in case of clear contribution by each author. Complementary authorship for spouse, HOD, Head of the institute shall not be considered)	10	
2	Qualification: (No proper qualification:0; non-domain:1; Doamin-UG:2; Domain-PG (another speciality):3; Domain-PG (same speciality):4; PhD:5	05	
3	Experience: 1 score for each year of professional experience	05	
4	Expertise: • 2 score for each publication in indexed (web of science, SCOPUS, SCI, PUBMED, UGC CARE) or chapter contribution in textbooks/ reference books that are recommended by apex bodies)	10	
	• 5 score for each book authored if the book has been recommended by apex bodies	20	
	Total Score:	**50**	
In case of multiple authors, for those authors who have been considered by the evaluators as real contributors of content, for each one of them same assessment is to be followed for each author and the average score of all authors shall be considered for assessment			
B. Publisher Credibility:			
1	• Published by author:0; • Publisher without any experience of publishing in Domain:5 • Publisher having experience in publishing in Domain but the publications not recommended by apex bodies:10 • Publisher having experience in publishing in Domain and the publications are recommended by apex bodies:15 • Publisher having multidimensional domain experience:20 • Well established domain publisher:25 (Select Appropriate Option)	25	
C. In General:			
1	Uniqueness of the book (what made the author to write one more book when already many books are available on the subject) (0-5 score)	5	
2	Whether the uniqueness claimed by the author has been conveyed clearly? (No-0 score; Yes: To some extent-1, Moderate extent-2 & Fully3 score)	3	
3	Whether the book stayed focus on the uniqueness as claimed by the author? (No-0 score; Yes: To some extent-1, Moderate extent-2 & Fully3 score)	3	
4	Whether the book is dealing with entire curriculum & syllabus? (No-0 score; Yes: To some extent-1, Moderate extent-2 & Fully3 score)	3	
	Total Score	**14**	

	D. Physical Appearance, Structure & Organisation:		
1	Attractiveness of Cover page (0-5 score)	5	
2	Relevance of cover page design (0-5 score)	5	
3	Size of the Book – in respect to convenance of readers • Dimensions (0-5 score) • Bulkiness (0-5 score)	10	
4	Paper quality: (0-5 score)	5	
5	Colours in Printing (0-5 score)	5	
6	Logical & Consistent page layout with appropriate line spacing & margins (No-0 score; Yes-1 score for every 20% of pages)	5	
7	Font Type & Size and their consistency throughout the text: • Type of font(0-10 score) • Size of font (0-10 score)) • Consistency in maintaining type & size of font (0-10 score) (Commonly used font type are recommended. Appropriate font size to avoid eye strain is recommended. Different font types such as italics, Devanagari etc. for easy identification)	30	
8	Number pages to the teaching hours & (total of theory and Practical/Clinicals) as specified by NCISM <1:1=0; 1:1=5 ;2:1=10;3:1and above :15	15	
9	An overview of the learning objectives at the beginning of the chapter included? (No-0 score; Yes-1 score for every 20% of chapters)	5	
10	Is there an introductory section/chapter to explain readers what are the unique features of the book and how to use the book? (No-0 score; Yes-Comprehensiveness of the chapter: 1-5 score)	5	
11	Is the table of contentsis well structured? (0-5 score)	5	
12	Is the book provided with list of Abbreviations used in the book, Transliteration key, index etc. (No-0 score; Yes: To some extent-1, Moderate-3 & Fully-5 score)	5	
13	Summary of the chapter at the beginning or at end of the chapter has been included? • No-0 score; Yes-1 score for each 20% of chapters	5	
14	Whether the text is structured as chapter titles, headings, captions, text boxes etc.? (No-0 score; Yes-1 score for each 20% of chapters)	5	
15	Whether the content is included with varied and meaningful activities, tasks and exercises that are appropriate to content? (No-0 score; Yes-1 score for each 20% of chapters)	5	
16	The topic distribution and sequencing are appropriate and logical? (No-0 score; Yes- 5 score)	5	
17	Key words and concepts are identified and highlighted? (No-0 score; Yes-1 score for each 20% of chapters)	5	
18	Free from the mistakes and reiteration? (No-0 score; Yes-1 score for each 20% of chapters)	5	
	Total Score	130	

	E. Subject Matter:		
1	Compilation of classical references (0-5 score) • No references-0 • Direct references from only major classics-1 • Including cross references from major classics-2 • Direct references from all classics-3	15	

	• Including cross references from all classics-4 • Along with commentators' views-5 Added with recent and relevant advances (0-5 score) Appropriately interpreted, discussed and logically concluded (0-5 score)		
2	The concepts • Clear & Accurate (0-5) • Comprehensiveness (0-5) • Self-explanatory and do not require additional resources to understand (0-5) • Supported with authoritative references ad evidences (0-5)	20	
3	Consistency of content to entire curriculum & syllabus (1 score for every 20% of content)	5	
4	Understandable to all three types of learners (advance, medium and slow learners). No-0; To some extent-1; Moderate-2; Fully-3	3	
5	Is the matter facilitating students to learn directly and independently and construct meaning on their own (i.e., read to learn). No-0; To some extent-1; Moderate-2; Fully-3	3	
6	Is the content promoting: • Higher-order thinking skills that require analysis, evaluation and judgement, and not just recalling and comprehension of facts No-0; To some extent-1; Moderate-2; Fully-3	3	
	• Deep processing, critical and creative thinking by providing less structured problems and more open-ended questions No-0; To some extent-1; Moderate-2; Fully-3		
7	Content is with well- formed presentation, discussion and conclusion No-0; To some extent-1; Moderate-2; Fully-3	3	
8	Content – reveals clear meaning & thought provoking No-0; To some extent-1; Moderate-2; Fully-3	3	
9	Content is focussed on main idea and no diversions, no irrelevant content No-0; To some extent-1; Moderate-2; Fully-3	3	
10	Definitions explained well with suitable examples No-0; To some extent-1; Moderate-2; Fully-3	3	
11	There are multiple perspectives and balanced viewpoints on issues. No-0; To some extent-1; Moderate-2; Fully-3	3	
12	There is no bias in content, such as over-generalisation and stereotyping. No-0; To some extent-1; Moderate-2; Fully-3	3	
13	The content and illustrations do not carry any form of discrimination on the grounds of gender, age, race, religion, culture, disability etc., nor do they suggest exclusion. No-0; To some extent-1; Moderate-2; Fully-3	3	
14	Included appropriate resources for further reading (No-0; To some extent-1; Moderate-2; Fully-3)	3	
15	Bibliography, References & Citations (0-5 score)	5	
	Total Score	**81**	

	F. Language:		
1	Is the language used in the text is simple? No-0; To some extent-1; Moderate-2; Fully-3	3	
2	Usage of Standard Technical Terminology No-0; To some extent-1; Moderate-2; Fully-3	3	
3	Usage of Standard Punctuation Marks & Symbols No-0; To some extent-1; Moderate-2; Fully-3	3	
4	The language is accurate and precise No-0; To some extent-1; Moderate-2; Fully-3	3	
5	Can the audience determine meanings of difficult or technical terms through context clues? No-0; To some extent-1; Moderate-2; Fully-3	3	
6	Is the text free from Grammatical mistakes, redundancies, wordiness, highfalutin and sexist language? No-0; To some extent-1; Moderate-2; Fully-3	3	
7	Is the text free from fragments, run-on, and overly complex sentences? No-0; To some extent-1; Moderate-2; Fully-3	3	
8	Are capitalization, spelling, and paragraphs used correctly? No-0; To some extent-1; Moderate-2; Fully-3	3	
	Total Score	**24**	

	G. Illustrations:		
1	**Colour** • Black and white -5 • Colour- 10	10	
2	**Visibility of illustrations** • Clarity/Resolution (0-5 score) • Colour (0-5 score) • Labelling (0-5 score)	15	
3	Relevance to the content no:0;to some extent:1; Modurate:2;fully:3	3	
	Total Score	**28**	

	H. Ethical Issues (related to author, editor & publisher):	
1	Fabrication & falsification of data (Yes/No)	
2	Plagiarism (Yes/N0)	
3	Citation bias (Yes/N0)	

CRITERIA FOR RECOMMENDATION					
In case if the answer is YES for all the three questions under criteria H (Ethical Issues), then only further analysis may be carried out. In case of NO is the answer any of the questions or all three of the questions under criteria H, then the book is to be recommended for rejection without further analysis					
SR.NO.	CRITERIA	TOTAL SCORE	ALLOTED SCORE	%	REMARKS
A	Author Credibility	50			
B	Publisher Credibility	25			
C	In General	14			
D	Physical Appearance, Structure & Organisation	130			
E	Subject Matter	81			
F	Language	24			
G	Illustrations	28			
	Total Score	**352**			
Recommendation: Recommend the book for inclusion under 'Recommended Book List' in case if					

the percentage of score is minimum 50% in all A to G criteria. Not to recommend in case of score is less than 50% in any of the above criteria.

• To Include	Grade
o PG o UG	• Grade-I (Average Score Percentage: 75 -100) • Grade-II (Average Score Percentage: 50-74)

Method of submitting books for inclusion in the reference books list of NCISM prescribed Syllabus, process and recommendation:

- Author or publisher intended for inclusion of the book in the list of 'Recommended Book List' by NCISM, may submit the prescribed form NCISM Website along with five copies of books to NCISM.

On the basis of recommendations made by the 'Quality Assessment & Recommendation Committee' NCISM will decide to include/exclude the book in the list of 'Recommended Books' of respective subject syllabus.

(1) Honavar S. and Sabyasachi Sengupta, *Indian Journal of Ophthalmology* - New beginning, new aspirations, new trajectory. Indian Journal of Ophthalmology. 2017;65(5):333

(2) Okeeffe L. *A Framework for Textbook Analysis*. International Review of Contemporary Learning Research. 2013 Jan 1;2(1):1–13.

(3) Mukundan J, Nimehchisalem V. *Evaluative Criteria of an English Language Textbook Evaluation Checklist. Journal of Language Teaching and Research*. 2012 Nov 1;3(6).

(4) Iztok Devetak and Janez vogrine, *Critical analysis of science textbooks: evaluating instructional effectiveness* ed by Myint Swe Khine Editor *Teacher Development*. 2014 Dec 24;19 (2):269–72.

(5) https://www.cambridgeinternational.org/Images/352697-cambridge-approach-to-textbooks.pdf

(6) http://charakasamhitaonline.com