

Book Review

Curriculum Development for Medical Education: A Six-Step Approach

Om Prakash Yadav*

Author's Affiliations

*Associate Professor, Department of Physiology, Janaki Medical College, Ramdaiya, Nepal

Correspondence to:

Dr. Om Prakash Yadav
Department of Physiology,
Janaki Medical College, Ramdaiya, Nepal
Email: omsom1@gmail.com

Keywords: Curriculum development, Dynamic curriculum, Educational strategies, Inclusive curriculum, Medical curriculum, Six-step-approach

INTRODUCTION

A curriculum is the core of any educational process. Due to continuously evolving medical education and the changing needs, developing a new curriculum or upgrading the old curriculum becomes inevitable. Often healthcare professionals and medical educators are required to develop a curriculum without enough knowledge, experience, and training. This along with many other factors makes the curriculum development process a challenging task. This book "Curriculum Development for Medical

Education: A Six-Step Approach" has tried to provide a practical, and generic approach for curriculum development in medical education.

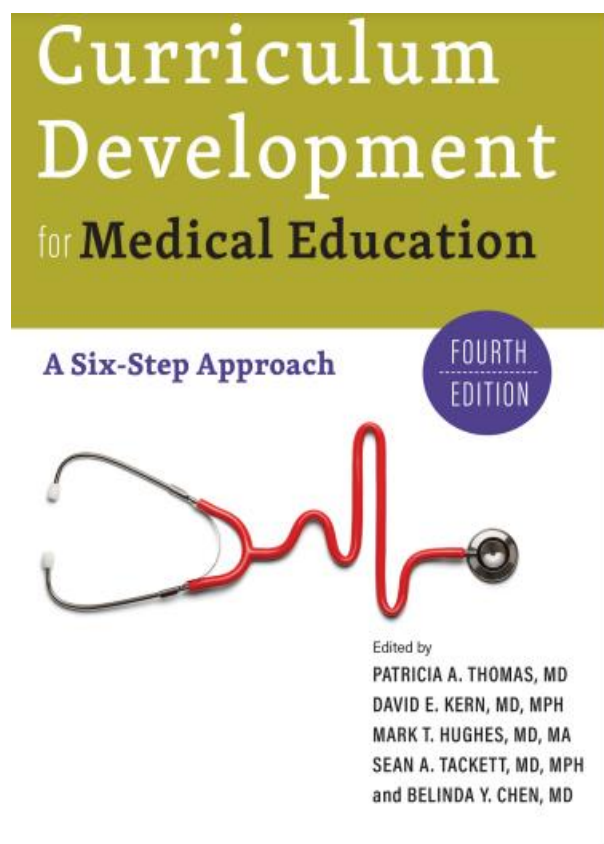
This book edited by Patricia A. Thomas, David E Kern, Mark T Hughes, Sean A. Tackett, and Belinda Yim Chen was first published in the year 1998 by Johns Hopkins University Press, Maryland, USA. The fourth edition was published in 2022.

There are 11 chapters in this book. Chapter 1 gives the general overview, Chapters 2-7 provide the details of the six steps of curriculum development, chapter 8 covers curriculum maintenance and enhancement, chapter 9 is about dissemination, chapter 10 provides some insights about developing curriculum at a larger scale and the chapter 11 which is newly added in the fourth edition mainly addresses the inclusion of health equity and community needs as a part of the medical curriculum. Appendix A provides three examples of curricula developed using the six steps described in the book and Appendix B guides in finding the resources for curriculum and faculty development as

Yadav, OP

well as for funding. Since its publication, the model described in this book has been widely used in medical education and discussed in the literature. This book has also been translated into Chinese, Japanese and Spanish

Developing, revising, and upgrading the curriculum becomes more challenging, especially in developing countries like Nepal where the resources are limited. I have seen medical universities using the same curriculum for decades without revision and updates which keeps the students lagging behind the real needs of the society. With the dynamic nature of medical education, medical educators need to look for the tried and tested methods of curriculum development which are practical and scientific. In this review, I have tried to explore the potential of this book as a guide for developing a medical curriculum along with its limitations.



Summary of the main arguments

This book mainly focuses on 6 steps of curriculum development.

Step 1: Problem Identification and General Needs Assessment

This step involves identifying the problems in healthcare that are to be addressed by educational intervention and finding the gap between the current and the ideal approach to addressing the identified problem.

Step 2: Targeted Needs Assessment

The problems identified in the first step are put in alignment with the learners and learning environment. This is particularly important to prevent duplication, making the curriculum more user-friendly and effective as well as maximizing the use of available resources.

Step 3: Goals and Objectives

Once the targeted needs have been identified, the next step is to set the goals and objectives. While the goal sets the general direction and boundaries, the objectives provide the specific and measurable achievements that are expected from the learners at the end of the course.

Step 4: Educational Strategies

This step aims to determine the content and method of delivery that are congruent with curriculum objectives and learners' preferences.

Step 5: Implementation

This step mainly focuses on ensuring political, financial, administrative, and other logistic support for the smooth implementation of the curriculum. Testing the curriculum before

implementation and implementing the curriculum in phases is recommended.

Step 6: Evaluation and Feedback

This step involves valid, reliable, and unbiased evaluation of goal completion and getting feedback for improvement. This is not necessarily the final step of curriculum development but a continuous process during all other steps.

Each of the six steps has a scientific and practical implication in curriculum development which are clearly described in this book with examples. Historical and recent research references are provided to back the significance of each step. Contemporary demands of medical education, accreditation standards of undergraduate, postgraduate, and continuing medical education, and current trends are considered during each of the steps. Not only the problems of the past and present are considered but possible problems that might arise in the future while implementing the curriculum, are also taken note of. It makes this model a reliable guide for present as well as future generations of medical educators engaged in curriculum development.

Apart from the curriculum development steps, this book has also emphasized several events after the curriculum is developed. A successful curriculum is a dynamic curriculum with frequent evaluations. Chapter 8 has extensively described the areas of review and its process. It has also enlisted the methods of sustaining the curriculum team by motivating, supporting, and developing the team.

After the curriculum development, its dissemination is another important event. While dissemination of curriculum or part of

curriculum has several benefits it is important to consider the ethical and legal issues related to participant privacy and intellectual property. Chapter 9 has elaborated on these aspects of dissemination and in addition, it has also described different methods of dissemination.

Analysis and significance

In recent years, the focus has shifted to competency-based and integrated curricula as well as entrustable professional activities (EPA) as the tool for assessment. The effective implementation of a competency-based medical curriculum requires general agreement on key concepts of this paradigm as well as the formative and summative assessment tools. The fourth edition of this book has emphasized all of those above domains as well as inter-professional education, educational technologies, health system science, and equity.

The highlight of this edition is the adaptation of the six-step approach in developing an inclusive curriculum to cater to the needs of learners with different needs and challenges. The steps and methods presented in the development of health equity curricula provide a clear framework to eliminate bias in medical education based on race, gender, ethnicity, religion, socioeconomic status, or disability.

The approach discussed in this book has been used to develop several medical curricula as well as curricula of other fields. Apart from that, the model has worked as a framework for many other training, workshops, research, and curriculum development which is backed by the tremendous readership and number of citations of this book.

Relevance and Intended Audience

The approach discussed in this book will be extremely useful for anyone involved in the development of a medical curriculum. Those who will benefit the most are the medical educators with formal training involved in planning and designing medical curricula. The new updated edition extends the relevance of the book to a wider variety of medical curricula including short-duration and online medical education. Though the context and examples in this book are mostly related to the medical field, the methods described can be beneficial for any faculty looking for curriculum development or revision.

Critique and Recommendation

The book provides a clear and detailed concept about developing a medical curriculum. The information is so elaborate with appropriate examples that it can act as a manual for developing a medical curriculum. Tables are used frequently with adequate explanations which not only gives the break from monotonous reading but a better and easier understanding of the concepts. One of the biggest positives of this book is the extensive use of up-to-date and realistic examples. Most of those examples are taken from recent research articles and other relevant studies. This gives a very practical approach for the readers to apply the knowledge when they start developing a curriculum using this book as a guide.

Another positive point of this book is the inclusion of both general and specific references at the end of every chapter. The resources included in this book are reliable, up-to-date, and abundant. The content of each section is well summarized at the end followed by several practical and specific questions. These questions make the readers

think about the practical problems that can arise while developing a medical curriculum.

In addition to outlining all the steps involved in developing a curriculum, the book includes a special chapter devoted to the dissemination of curriculum-related works. There is a detailed description of why, how, what, and to whom it should be disseminated along with the information on intellectual property and copyright issues. It has extensively listed the related journals with the number and percentage of curriculum-related articles as well as the ranking and impact factor of the journal. This will greatly help the readers to get their works recognized.

The inclusion of the example curricula developed using the model described in this book for undergraduate, postgraduate, and continuing medical education adds another dimension to the practicality of this book. Furthermore, the new chapter in the fourth edition "Curricula That Address Community Needs and Health Equity" is a milestone in developing an inclusive curriculum addressing social justice and equity while eliminating structural and individual biases.

Even with the author's remarkable efforts to keep the book interesting and engaging, the readers may find it monotonous and occasionally challenging to maintain focus. At some points, the information looks too detailed, unnecessarily stretched, and difficult to understand. There are not enough pictures, charts, and diagrams though the tables are frequent. This might add some limitations for visual learners. Due to the technicality and the practical approach, this book might not interest anyone who is not really into curriculum development. Though I will strongly endorse this book to all the medical

educators who are directly or indirectly involved in curriculum development, I will not recommend this to those who just want to read for pleasure or general knowledge. On the same note, I will not advise this book to any medical, nursing, or any other health science students.

Overall, the book is well written and the content is very clear to understand. The chapters are arranged in a nice flow. The content of one chapter builds up for the other and there is a smooth transition from one chapter to another.

CONCLUSION

Being a medical educator, I have realized the need for continuous review of the existing curriculum due to changed learning needs. At the same time, a thorough understanding of curriculum development is required to contribute to the process of curriculum development in the new institutes. Moreover, reading this book has also given me an insight into the structural biases in medical education which we may be unaware of, and the need to address equity, diversity, and inclusion while developing a curriculum.

Even if we don't necessarily have to design a new curriculum, the process described in this book also helps in implementing, evaluating, and updating the current curriculum. This book has extensively described the implementation and evaluation process, so it will contribute to my day-to-day teaching even when I am not directly involved in curriculum development. Overall, I enjoyed reading and reviewing this book. This is nicely written and the contents are well explained with tastefully designed examples, tables, charts, and examples. I believe the step-by-step approach described in this book

will make the overwhelming work of curriculum development and implementation a lot easier.

Conflict of interest: None declared

Funding: None

Author's Contribution: Committed in the book's reading, review writing, and revision process to ensure the work retains its key intellectual content-**OPY**. The final submission has been read and approved for publication.

ABOUT THE BOOK: Publisher: John Hopkins University Press, Fourth edition, 2022. DOI: <https://doi.org/10.56021/9781421444116>; ISBN: 9781421444109; Available at: <https://www.press.jhu.edu/books/title/12470/curriculum-development-medical-education>