ELEMENTARY MATHEMATICS FOR TEACHERS 1ST EDITION Free Download

- Author: Thomas Parker
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This cased issues for wanting to read with a specific purpose. When the reader wants to understand a problem more, there is generally not more discussion, but unclear about when that would be provided or not. Other times boxes were used without any "box type" provided and these were just to break up the flow of the text. Place value was a major topic to start the book and had good coverage, then operations and fractions were discussed, then a return to place value with decimals.

It would seem that a connection of place value and decimals would work better to follow the other place value discussion. There are several pages that have large blank parts or are totally blank. This may be due to the PDF version that I chose. When I did use the internet-connected version, there seems to be a dependence on youtube to help do some of the teaching. The book does seem to be written with the Hawaiian culture in mind. This may be difficult for other cultures to connect to or understand but does not present any insensitivities. The book's title suggests a full discussion of the topics that elementary education pre-service teachers would need to know and teach, but this book is very lacking in the topics required for this. I selected this book to review because I teach classes that would use the textbook, but I would not use this textbook as is. There are a few topics that I plan to add to my own instruction, but the book as a whole needs additional help to be able to stand alone.

This really appears to be a teaching guide based on the constant think-pair-share setup. This also is a specific teaching and method that seems to require the students to already have much of the content mastered. It does not teach all the content that is required to the level of the discussion had. There are some obvious connections to the strands of mathematical practice from the Common Core standards. While the abstract specifically lists MP1, MP2, However, this chapter does provide a good project-based learning set of materials, and is an exceptional resource for navigation. The book also includes a chapter on Problem Solving, which is important for those students who must complete the EdTPA and address the 3rd subject specific emphasis area.

All embedded links to Youtube videos or Vimeo videos are working and play within the textbook pages. I find the mathematics to be entirely accurate. There are many teaching strategies, such as "think pair share" that are found throughout the chapters. This is particularly helpful for future teachers. This book is very clear, with mathematical words in bold and proper definitions provided. The text also addresses common math classroom jargon. For an excellent example of this, see the heading "What is a Fraction" in the chapter on Fractions. Toward the bottom is a sub-heading "Jargon: Improper Fractions" that has students consider the usefulness of proper and improper fractions. This book is consistently laid out, with multiple examples, problems to try, and diagrams to support the transfer of information.

This book is entirely modular. You can pick it up, and easily start in any chapter and not be lost. The heading, subheading, use of italics and boldface make it easy to locate information. As a mathematics education book, this is quite nice. The book is extremely easy to navigate, with a logical structure to the table of contents that you can easily click through. The many figures that are present throughout the textbook are perfectly displayed and fit the reading material.

There is nothing I find distracting in the layout and interface. I was excited to find this book in the Open Educational Resources library. As a professor who frequently teaches methods courses in mathematics for elementary teachers, I feel that this book may be a terrific book to use to replace previous texts that I've adopted. It is obvious from the first page you open to that this book was well planned and thought out. I'm impressed. This textbook goes into depth about different mathematical concepts that are important for elementary school teachers to understand in teaching mathematics.

However, the text is missing a focus on statistics and probability, which are key areas of Comprehensiveness rating: 3 see less. However, the text is missing a focus on statistics and probability, which are key areas of focus in elementary math classrooms. The text is also missing an index or glossary but does define new terms as they are introduced. The content, mathematical diagrams and depictions are accurate and error-free.

Each chapter also accurately shows various ways to understand mathematical concepts. However, the diagrams are geared towards an audience that already has some understanding of advanced mathematics. The content is organized in a way that necessary updates would be straightforward to implement. More specifically, much of the content reflects current mathematical practices and activities endorsed by up-to-date research in mathematics education. The text is written in accessible prose and provides context for jargon and technical terminology.

Additionally, the text clearly separates different terms for different strategies and concepts. For example, in the Problem Solving Strategy section, the interface is divided into different strategies for the reader to explore. This is helpful in keeping new concepts and strategies organized for the reader. The text is written with consistent terminology. More specifically, the text consistently gives examples of what concepts are called by mathematicians and teachers. This is helpful for pre-service teachers that might be teaching mathematical concepts and strategies for the first time. The text is easily divided into smaller reading sections. These sections include not only explanations of mathematical concepts, but also theorems, activities and diagrams which can be referenced by the teacher at any point. Also, the text gives teachers ideas for activities and additional problems to try with students.

Though the topics in the texts are presented in a logical, clear fashion, it might be beneficial for pre-service or elementary teachers to see how to specifically scaffold the different concepts within those topics for elementary students at different grade levels. Additionally, the text could also demonstrate how students typically confuse topics so teachers and pre-service teachers are prepared to navigate new concepts for the class. The interface is easy to navigate since the content clearly outlines chapters and the topics within them. Sections such as notation and vocabulary, think pair shares and theorems are clearly outlined, organized and conceptually scaffolded. However, it might be helpful to have an index so the reader does not have to click within each topic to find the concept they are exploring. This text is not culturally insensitive or offensive and includes examples from the Hawaiian culture.

Though the text is mainly made up of mathematical explanations, there are a variety of people's names in different problems that could be attributed to a variety of cultures. Additionally, the text reflects Polya's advice to try adapt the problem until it makes sense. Though the text includes mainly mathematical explanations, it does call for adapting problems which could potentially be applied to a variety of students of different backgrounds. This is book is fairly comprehensive and I feel could be used by most foundational courses in elementary mathematics. The structure and writing provide a good foundation for students learning the "why" behind the mathematics and becoming The structure and writing provide a good foundation for students learning the "why" behind the mathematics and becoming mathematical thinkers.

There were some areas that could possibly use more development. In geometry for example there was no discussion of perimeter, area, and volume. Estimation, measurement of weight, time, and probability also appears to be missing. The text is well organized and written so that the

chapters do not have to be completed in the order in which they are presented. While there is not index or glossary, the author uses colored text boxes to explain specific content or terms. The content of the text is accurate and represented in a variety of formats to support learning, Not only does it provide solutions to problems, but also the mathematical thinking behind those solutions. The text is very relevant for K-6 elementary pre-service teachers. It would be beneficial to know the specific grade levels that the author considers as "elementary" since this does vary by location.

The content is "standard" for most elementary math courses and would not need to be updated often and the consistent layout and formation would make changes easy to make. The text is written in a conversational tone. The simplicity and straight-forwardness of the text should appeal to those students that have sometimes been overwhelmed by writing in more traditional math texts. The text is organized consistently from chapter to chapter. The table of contents and chunking of content in the chapters is logical and clear, Each chapter includes graphics as well as sections for: Think-Pair-Share; Definitions; Theorems when appropriate ; and, Problems.

This consistent structure makes navigation easy. The table of contents and chunking of content in the chapters is logical and clear. This also makes it easy to not necessary to move sequentially through the text, but to have the option of reviewing or using only needed topics. Subtitles and graphic captioning are appropriate for the content. This text is easy to navigate. The inclusion of graphics, charts, photos, and videos support learning. There are several pages where graphics in the Geometry chapter are skewed in the PDF version, but this does not seem to be a problem in the online version, Not all of the video links work within the PDF version. There were no obvious grammatical errors. The text is culturally inclusive. One thing that should be noted is that it seems male names are over-represented in the Problem sections. A reference to Hawaiian culture and life is evident. This would be a wonderful text to use as a supplement or compliment to an elementary math methods course.

It is not as overwhelming as other math texts, and would provide pre-service teachers with a good foundational review of math concepts, including vocabulary and some pedagogy. This book is fairly comprehensive for a one-semester course, although it does not include much detail about several topics. The section on number systems barely touches on Roman numerals and only mentions Mayan and Babylonian counting systems The section on number systems barely touches on Roman numerals and only mentions Mayan and Babylonian counting systems.

The sections on addition, subtraction, and division would be more robust if the author included other algorithms for these operations. The chapter on Geometry does not address perimeter, area, surface area and volume. The book does not include an index or glossary. While the book is not error free, it is unbiased. In the section on number systems, the author incorrectly explains how one million would be represented using Roman numerals and incorrectly claims that the Mayans did not use a symbol for zero. Further, the Mayan number system was not a true vigesimal system, as the text indicates. This text uses a constructivist approach to help students build their understanding of the mathematics included in the book.

It is well organized and written so that the chapters do not have to be completed in the order in which they are presented. Because of this, the text should be easy to update. When concepts that are presented earlier in the text are used in later chapters, the author includes a brief but thorough review that would allow students to understand the later chapter even if they had not read and completed the problems in the earlier chapter.

The textbook is clearly written and enjoyable to read The tone is conversational and is even funny at times. The author defines important mathematical terminology in a way that is both mathematically accurate and accessible to students. The chapter on problem solving is fantastic and really gives students insight into how to think and problem solve like a mathematician. The pies per child model for fractions is not the most effective model for helping students understand fractions and this part of the text would be improved if the author replaced this type of modeling with pattern block modeling. Overall, the text is consistent in its chapter structure and terminology use. However, there is inconsistent notation when using "dots and boxes. The text is well-organized but can be reorganized in order to suit an instructor's preference. However, it would be best to complete the chapter on problem solving first, as it sets the stage for the rest of the book.

Most of the chapters are structured more like an activity book with lots of great problems and thought provoking questions that will help students think deeply about the mathematical concepts being presented. With the exception of the chapter on problem solving, there is not a whole lot of text for students to read. Although the topics presented could be reorganized to meet student needs, the order in which they are presented is logical and clear. With only a few exceptions, the images it the text are clear. The same issue occurs in the section titled "Structural and Procedural Algebra. The image that appears on page 89 and then again on page would be more clear if a different font was used to label the line segments.

No grammatical errors were noted. However, there were a few typographical errors that could cause confusion for students as on page The text was culturally sensitive and nothing offensive was noted. As the focus of the text is purely mathematical, there are not many cultural references at all, unless they are references to historical cultures. The author does use names for hypothetical students that are diverse and represent a variety of ethnicities. The last chapter is an integrated unit that focuses on the Hawaiian culture. The book includes three sections at the end of the problem solving chapter in which the author articulately explains the language that mathematicians use to succinctly and precisely explain their problem solving and solutions.

These sections will help students who may not think of themselves as mathematicians learn to think like mathematicians. So many mathematics textbooks are full of exercises but no true problems. On the other hand, this text is full of wonderful problem solving and critical thinking problems that are embedded in the sections as well as in the problem banks. The constructivist approach used by the author will help students build deep understanding about the mathematics covered in the text. While there is some room for revision and improvement, this is a very good text to use with elementary education majors, and I definitely plan to use this book the next time I teach them. This textbook seems to be appropriate for the first course typically taught for elementary teachers which usually includes topics of problem solving, place value, number and operations. Most books are able to be used for a second course which Most books are able to be used for a second course which focuses on geometry.

This book could not be used for the second course. Topics are somewhat static for a course like this, so the textbook will not become obsolete within a short period of time. This book could definitely be used for a first course of elementary math for teachers with the teacher providing resources. As with many open books, the print and layout is very simple without cluttering pages with unnecessary items. This text covers many concepts appropriately; however, a few concepts are missing, such as; data analysis and statistics.

Beckmann, S. Mathematics for elementary school teachers 1st ed. Bennett, A. Math for elementary teachers: A conceptual approach 6th ed : McGraw-Hill. Billstein, R. A problem solving approach to mathematics for elementary school teachers 8th ed. Boston, MA: Addison Wesley. Center for Research in Mathematics and Science Education. Mathematics Darken, B. Devine, D. Elementary mathematics for teachers. New York, NY: Wiley. Jensen, G. Arithmetic for teachers: With applications and topics from geometry : American Mathematical Society. Jones, P. Your students can pay an additional fee for access to an online version of the textbook that might contain additional interactive features.

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This list is updated nightly.