Revision Log for
AN INTRODUCTION TO BRAILLE MATHEMATICS USING UEB WITH NEMETH
A Course for Transcribers

Updated: 4-4-2023

This document contains information about revisions to the PDF and BRF files of *An Introduction to Braille Mathematics Using UEB with Nemeth, A Course for Transcribers.* Individuals who downloaded these files prior to the current upload dates should note this information about what has been changed or should download the most recent copy and discard the old one.

Please report errors by sending an email to: transcribers@nfb.org.

ALL FILES FIRST APPEARED ON THE NFB WEBSITE ON SEPTEMBER 21, 2022.
The updated lesson files can be located here:
https://nfb.org/programs-services/braille-certification/mathematics-braille-transcribing

FRONT MATTER

10-23-22 Throughout (mostly): "don't" changed to "do not"
Pages iv, vi: Text changed to say that exercises will be given to you from your grader.
Pages vi, x: Foreword date changed to 2022
Page ix: "Go back" changed to "Return"
CONTENTS: All EXERCISE entries have been removed from the contents list.
11-10-22 Contents, end of Lesson 1: "HOW TO PREPARE THE EXERCISES" and "EXERCISE 1" added.
11-22-22 Contents. new item: 2.21 Summary of Code Switching with Listed Items
Contents: 9.5 heading changed to "Barbed and Solid Arrowheads".
12-29-22 Minor change made in the Table of Contents.
3-21-23 Table of Contents expanded to include subsections.
4-4-23 Minor changes in table of contents.

PRELIMINARY LESSON

10-27-22 P5, "Symbol Recognition": The last phrase has been deleted.
P8, "Symbol Recognition": The last phrase has been deleted.
P13: The symbol for "American Mathematical Comma" has been removed. A comment is added to Example P-21.
P14: The symbol for "American Decimal Point" has been removed. A comment is added to Example P-22.
11-17-22 *Print copy*: The size of the minus sign was standardized, throughout.

LESSON 1

10-12-22 *Print copy*: Example 1-22, simbraille: Inserted a hyphen at the end of line 1.

10-15-22 Section 1.10: An exception was added.

Section 1.11: New subitem c. and new Example 1-39. The remaining examples renumbered 1-40 through 1-46.

10-19-22 Comment to Example 1-11 changed to say "full cells of shadow dots".

10-22-22 1.7, narrative: redundant word "the" is deleted.

1.8, narrative: "In print," is deleted.

Example 1-33, comment: changed to say "in nonmathematical context".

Example 1-35, comment: changed to say "in nonmathematical context".

10-27-22 Exercise Instructions and EXERCISE 1 have been added to the end of Lesson 1.

11-9-22 *Print copy:* Link to the Answers to Practice Material repaired.

Print copy: Exercise 1: The length of the minus symbols is now consistent.

Page 1-29, a new item (7) was added to HOW TO PREPARE THE EXERCISES regarding linage. There are now ten listed items.

11-17-22 *Print copy*: Links to Exercise 1 were added to the brief contents.

Print copy: The size of the minus sign was standardized, throughout.

12-15-22 *Print copy*: Shadow dots have been added to blank lines in some of the examples.

Exercise 1: The instructions have been rewritten. The first paragraph has been removed. Some of the items have been rearranged.

12-21-22 Example 1-16: Commentary revised.

Exercise 1, item J: Paragraph heading changed.

2-16-23 Example 1-40: Comment added.

3-3-23 Instructions to Exercise 1: Clarification regarding placement of the Nemeth Code terminator following the 3-column list.

3-30-23 Braille copy: Some of the opening switches have been rearranged.

LESSON 2

10-15-22 Sections 2.4 and 2.5: Narrative changed to clarify the rules regarding the use and nonuse of the punctuation indicator.

Print copy: Example 2-16, simbraille: A decimal point was removed from line 2.

11-1-22 2.5: "in the box above" changed to "in the box on the previous page".

Example 2-11: The comment has been rewritten.

Example 2-12: The comment has been rewritten. A cross reference to Section 1.11 has been added.

2.17: A reference to Example 2-32 has been added.

2.17.1: A new example has been added. Further examples are renumbered.

2.18.2: Paragraph heading changed to "An Itemized List of Mixed Items." Paragraph headings have been added to subparagraphs a-e.

Example 2-36: Item 3 has been shortened.

11-10-22 2.7: "mathematical symbol" changed to say "mathematical item"

2.18.1: Last sentence removed. Mental Math example moved to Lesson 4. Further examples renumbered.

11-17-22 *Print copy*: The size of the minus sign was standardized, throughout.

Example 2-42: Heading removed; comment rewritten.
New section 2.21 summarizes placement of code switches before and after a list.

11-28-22 Example 2-8: Division symbol changed to multiplication cross.
2.5.3: Clarification made regarding a negative number in quotes.

12-1-22 Practice 2B: Instructions regarding the placement of switch indicators has been changed. The transcription shows the new layout.
2.21: The summary of the placement of code switches before and after a list has changed.

12-15-22 *Print file:* Shadow dots added to blank lines in some of the examples.
Instructions to Practice 2B changed slightly.
Section 2.21.1 has been rewritten.
Braille file: The instructions have been rewritten for Exercise 2.

3-3-23 2.8.2.b: Punctuation changed after second example.
Example 2-40: Typo corrected.
2.20: References to subdivisions deleted.

LESSON 3

10-15-22 Section 3.1: An exception is added after the first paragraph.
Example 3-1: Spacing changed in print example. The comment is revised.
Print copy: Example 3-11, simbraille: Corrected misspelled word "variables".
Section 3.16: The order of the examples in this section is rearranged. Newly-numbered Example 3-64 is expanded to illustrate the rule.

10-29-22 3.12.5: Text has been expanded regarding the transcription of chemical element symbols.

11-10-22 3.9 Text added to further define "unmodified" as it applies to an English letter.
New Example 3-52; further examples renumbered.
3.10.1: Parenthetical text moved from the end of this section.
3.12.4: This section has been deleted because the topic of plural, possessive, and ordinal endings with "single letters" is addressed in Lesson 4. Section 3.12.5 renumbered.
Example 3-65: A second sentence has been added. The commentary reflects the change.

11-17-22 *Print copy*: The size of the minus sign was standardized, throughout.

11-21-22 Examples 3-8 and 3-9 are now combined. A new Example 3-9 has been added.
Sections 3.9 and 3.10 have been improved with clearer layout and discussion.
Commentary is added to Examples 3-49 and 3-50. The order of Examples 3-51 and 3-52 has been reversed.

12-21-22 3.14: Narrative clarified.

12-28-22 Example 3-28: "or 315" deleted from the end of this sentence.
Practice 3E: Instructions added regarding placement of the Nemeth Code terminator.

3-3-23 Practice 3B: Comment added regarding line 4.
Format Summary #2: Changes made to the first item regarding side-by-side itemized material.

LESSON 4

10-16-22 *Print copy:* Practice 4F, item 5: italics removed from the word "or".
Example 4-44: The numeric indicators are removed; the comment is expanded.

4.20.2: Title changed to "Spacing of Omission Symbols with Abbreviations" and the narrative has been expanded.
Examples 4-50 and 4-51 have been swapped and comments have been added.
Practice 4I, item F: punctuation indicator removed; linage corrected.

10-29-22 4.20.2, The example was misnumbered. Changed to 4-51. Examples are renumbered from here to the end of the lesson.
Example 4-51, comment: wording clarified
Example 4-52, comment: "the" changed to "which"

11-10-22 4.26: Sentence added regarding placement of opening switch after a transcriber's note.
4.27: New section added regarding embedded identifiers.

11-11-22 The final example was corrected to be number 4-66.

11-16-22 *Print copy*: The size of the minus sign was standardized, throughout.
Print copy: Practice 4D: The missing paragraph in the answers has been inserted.
Practice 4F, item 6: The question mark is moved. The explanation in the answer section is clarified.
Practice 4G: The items are now numbered. The answer to item 16 has been changed to YES.
Example 4-64: Item (c) has been removed.
Practice 4I: Item C has been changed.

11-22-22 4.8 and Example 4-12: The transcriber's note is now more specific regarding the alphabetic digits used in base twelve.

12-22-22 *Print file:* Shadow dots added to blank lines in some of the examples.
4.17: Citation added to subitem v.

12-30-22 Example 4-44: *Print copy, simbraille*: Letter "g" deleted from the end of line 4.
4.17.3: Text added regarding set notation. New example 4-42; further examples renumbered.

1-19-23 4.17.v: Clarification made regarding words in set notation.
4.17.3: Last sentence deleted.
Example 4-42 is now Example 4-45.
4.17.3.b: The paragraph has been replaced with new text. A new paragraph is inserted following Example 4-44, and Example 4-45 follows.
Example 4-45: Commentary added.
Practice 4G: Another item is added to the end of this list. The answer to #16 is changed.
Example 4-47: The wording is changed in the commentary.

3-15-23 4.25: General rule added regarding the blank line before a heading.

3-21-23 Example 4-3: meters and m changed to yards and yd.
Practice 4A: m changed to in.

LESSON 5

11-1-22 5.4 (table) and 5.4.1: "back slash" changed to "backslash"
Example 5-20: Nemeth Code terminator moved to precede the word "seconds".
5.4.9.e: Cross reference corrected to say 5.6.14.
PRACTICE 5B, simbraille and braille copy: Column 1 should end in cell 22. Column 2 should begin in cell 25.
5.6.1 title changed to "Arc, Concave Downward"

5.6.2 title changed to "Arc, Concave Upward"
Example 5-31, simbraille: Now begins in cell 3; the word "be" is contracted.
5.10 symbols list: label to the fourth symbol changed to Negated "Bar Under Greater Than"

11-11-22 *Braille copy*: Braille page 65, Instructions for Exercise 5: The sentence about embedded identifiers was deleted.

11-17-22 5.4.9.e: Cross-reference changed to 5.6.12.
5.4.11.b: Cross-reference changed to 5.6.14.
5.6: The arc symbols have been removed from the comparison signs list. Subsections are renumbered to account for the elimination of 5.6.1 and 5.6.2.

12-15-22 *Print file:* Shadow dots added to blank lines in some of the examples.
Practice 5A: Placement of switches changed.
5.4: *Print file:* Second item in symbols table corrected to be dots (16).
Practice 5B, print file: Spacing corrected before the first symbol in column two.
Practice 5C: Items with arcs have been removed. Placement of switches changed.
Example 5-36: Transcription changed to reflect recommended placement of Nemeth Code terminator following an unitemized list.

12-19-22 *Braille file:* Instructions to Exercise 5 changed slightly.

12-28-22 Practice 5A: Instructions changed.

2-1-23 5.11: Typo corrected (begins for beings)

3-4-23 5.11: Narrative updated to current practice.
Practice 5F: Comment added.

3-30-23 5.2: Sentence added regarding keeping the components of these symbols undivided.

LESSON 6

11-12-22 Example 6-21: Comment changed to "the plus sign".
Braille copy: Practice 6D, item (3) changed to two sentences.
6.7.1 and Example 6-26 comments: "parentheses" changed to "left and right parenthesis" and further text added.
6.16: "symbols braille" changed to "symbols in braille".
Practice 6L: "the" changed to "each"
Practice 6K: A period was added to the transcriber's note.
Print copy, Answers to Practice Material: Practice 6C, Number 6.02 corrected; Practice 6D, Punctuation indicators inserted before each period.

12-8-22 *Print copy:* Shadow dots added to blank lines in the examples.
Practice 6B: Instructions changed. Placement of the blank lines in the transcription changed.

12-15-22 Practice 6J: Placement of the switch indicators has changed, as described in the instructions.

2-16-23 Practice 6C, item 4: *Print*: Quotation marks removed. *Simulated braille*: The number 6.02 corrected.
Practice 6K, item 3: *Braille*: A multipurpose indicator was inserted before the superscript 18.

3-31-23 Example 6-31: Commentary added.
Example 6-35: Commentary changed.
6.12.4: title changed, subsections rearranged, text and commentary clarified regarding ellipsis or long dash within a superscript or subscript.
New Example 6-39. Further examples renumbered.

6.12.5: Last sentence deleted. In the first sample, a space has been inserted before the baseline indicator.

Practice 6I, item 7: A space has been inserted before the subscript indicator that is associated with the ellipsis.

Practice 6J: Bold type changed to be centered headings.

LESSON 7

10-30-22 *Print copy:* Practice 7A, simbraille, lines 12-13: n > M was moved to line 13 to keep both switches on the same line as the math expression.

Print copy: Practice 7D, simbraille, lines 11-12: The opening switch and (a was moved to line 12 to keep the math expression and its code switch indicators on the same line.

11-4-22 7.1.1: A bulleted item was added regarding displayed material following a transcriber's note.

11-22-22 *Print copy*: The size of the minus sign was standardized, throughout.

Print copy: 7.7.1: The script 4 font has been corrected.

Practice 7H, item 1: boldface has been applied to the word "red" in the last sentence.

7.11.3: The note to students has been edited.

Example 7-37: Line numbers are added. The expression is now displayed and the period and ellipsis have been removed. The word "red" is colored red. The lines are numbered. Commentary has been added.

Example 7-39: Line numbers are added. The comment is reworded.

12-16-22 *Print copy:* Typeform issues for bold and italic letters have been corrected in several places throughout this lesson.

Examples 7-1 and 7-2: Commentary clarified with cross-references to 7.1.1.

7.1.3: This section has been reorganized. Corrections are made to the examples and commentary includes cross-references to 7.1.1.

Practice 7A, *print copy simbraille*: "ence" is now contracted in "Sequences".

Practice 7E, *braille and simbraille*: The last two symbols on the fifth line are corrected to be gheh and Zheh. Also, the code switch indicators have been changed to the recommendation of being alone on the line before and after the list.

Practice 7F, *print copy*, line 5: A font discrepancy has been corrected. *Braille and simbraille:* The code switch indicators have been changed to the recommendation of being alone on the line before and after the list.

Practice 7H: The wording in the second paragraph is corrected to match the print.

Example 7-32, line 2 of the braille: Space inserted between the comma and the word “the”.

Example 7-33, line 3 of the braille: Space removed between “sum of A and -B" and the colon.

Practice 7J: The code switch indicators have been changed to the recommendation of being alone on the line before and after the list.

Practice 7L, *simbraille*: On line 3, a comma is added after the word “pairs”. *Braille and simbraille:* The first expression and the word "and" fits on line 7.

Example 7-35: Punctuation and text changed slightly. Cross-reference corrected.

2-1-23 7.2.2: Text change to state that a Transcriber's Notes page is required. The transcriber's note has been changed to match the one given in Practice 7D.

2-16-23 7.1.1: Rewritten to clarify placement of switch indicators with displayed math expressions.

Practice 7B, item 2: code switches changed in the displayed material; commentary added.
Example 7-7: Lines 2-4 changed to illustrate Nemeth continuing after the displayed expression. Commentary added.
7.2.1: Rewritten to follow established guidelines for code switching before itemized math.
Example 7-11: Only one transcription is retained.
Practice 7D: Commentary to line 14 rewritten.
Practice 7I, *print*: In item (1), the plus signs were changed to regular type. Comment added.
Example 7-37: Lines 5-6 edited according to code switching guidelines after a transcriber's note. Commentary adjusted.

4-2-23 7.1: Note added.
7.1.1.a and b: Text clarified.
Example 7-2: Slight changes.
7.5, symbols list: "San Serif" changed to "Sans Serif". Note moved up from subsection a.
7.5.a: Order of indicators clarified.
Practice 7E: Instructions and sample changed to show the opening switch on a line by itself.
Practice 7F, last line, braille: Symbols corrected to capital Delta and sans serif letter d.
Practice 7J: Instructions corrected to match recommended format given in Lesson 2.

LESSON 8

12-6-22 *Print copy*: The size of the minus sign was standardized, throughout.
8.5: The narrative has been changed to match that of the new code book.
8.5.1.a "Linear Print Representation of a Mixed Number" has been removed from the code and so has been deleted from this lesson. The text from subsection b. has been moved to the main part of 8.5.1.
8.5.3: The narrative and the two examples have been changed to match that of the new code book.

12-29-22 Practice 8D: Code switch indicators moved.

1-19-23 Example 8-33, *Print copy:* Identifier "1." added.
Example 8-36, line 7: Nemeth Code terminator deleted.
Example 8-41, *Print copy:* Multiplication dots inserted in denominators.
Example 8-42, *Print copy:* Multiplication dots inserted in denominators.

1-31-23 *Print copy:* Date in footer corrected.

LESSON 9

12-18-22 *Print copy*: The size of the minus sign was standardized, throughout.
9.5: Heading changed to "Barbed and Solid Arrowheads". Solid arrowheads added to the table. Names of arrowheads updated. Other small changes made to this section.
Practice 9B: Placement of switch indicators and blank lines changed to comply with new guidelines.
Example 9-60: Opening switch moved to cell 3; commentary adjusted.

1-20-23 *Braille copy*: Instructions to Exercise 9 have been changed.

2-7-23 9.18 and Example 9-20: Clarification regarding margins for side-by-side layout.
Braille copy: The instructions for EXERCISE 9 regarding side-by-side layout were updated.

2-17-23 Examples 9-34 and 9-35: Commentary added.
Example 9-54: Braille/simbraille changed to start out in UEB.
9.29: Sentence regarding headings added to subitem i; cross reference removed from subitem v.
9.30: Cross reference removed from subitem v.
9.31: Clarification added regarding cell-5 and cell-7 headings. Two new examples added.

2-28-23 9.8, Table of symbols: Simbraille for the third arrow left column corrected.
9.17.2: "currency" changed to to "monetary" throughout.
9.17.2.b: Narrative adjusted to obey a rule change.
Examples 9-18 and 9-19: Changed to obey the rule change.
Example 9-25: Correction made to the first problem; commentary added.
Section 9.25, second paragraph: Clarification added regarding items below the separation line.
Examples 9-57, 9-59, 9-60, and 9-63: Commentary added.
Section 9.31 divided into two sections.

3-4-23 *Braille copy:* Last item in the instructions for Exercise 9 changed.

3-7-23 Section 9.22 and 9.22.1 rewritten.

3-9-23 *Print copy,* Example 9-9: separation line corrected.

4-3-23 Section 9.22 further clarified.
Example 9-37, print: Final mixed number corrected.

LESSON 10

12-29-22 *Print copy*: The size of the minus sign was standardized, throughout.

1-20-23 *Braille copy*: Additional note added to the instructions to Exercise 10.

2-19-23 Example 10-18: Commentary edited.
Example 10-19: Line numbers added. Commentary edited.
Example 10-25: Line numbers and commentary added.
Example 10-26: Line numbers and commentary added.
Practice 10D: The side-by-side arrangements moved to the left two cells. Comment added.

3-17-23 10.6: Clarification added.
Practice 10B: Instructions The first problem has been changed.
Example 10-22, simbraille: full cell corrected to be a minus symbol.
Practice 10D: Instructions changed. In the simbraille, “six” changed to “seven” on line 1; colon changed to period on line 7; fourth problem moved up to lines 9-11; last problem moved up to lines 13-16. Commentary adjusted.

3-23-23 Example 10-22: Division symbol corrected.
Example 10-24, print copy: Extra braille number 3 deleted in the divisor.
Example 10-27, print copy: Missing braille separation line inserted.
Example 10-35: Missing quotients inserted.

LESSON 11

12-18-22 *Print copy*: The size of the minus sign was standardized, throughout.
11.6: A sentence has been added following the filled-in square.

Practice 11A: Transcriber's note changed to match the model given in 11.4.1. Commentary deleted.
Example 11-22: Text added for clarification.
Example 11-26, commentary: Changed "back slash" to "backslash"
11.36.2.a: Renumbered to be 11.36.3, and labeled "Significant Typeform Applied to a Fraction or a Mathematical Symbol"

2-19-23 Example 11-1: Comment revised.
Example 11-3: Comment added.
Example 11-26, braille and simbraille: comma added to match print.

3-21-23 11.13: numeric indicator inserted before numeral 30 in sample of interior angle.
11.24.1.d: terminator symbol added to the end of the right arrow keystroke.
Example 11-20, print: second "Z" made bold.

LESSON 12

12-19-22 *Print copy:* The size of the minus sign was standardized, throughout.
12.16.2: Paragraph added following the boxed symbol.
Example 12-21: Comment deleted.

12-29-22 Example 12-22: Code switching changed on lines 13-16.

2-1-23 A second paragraph was added to the Lesson Preview.
Some modifiers were enlarged for clarification.
Paragraph before Example 12-20: A note was added about the lack of code switch indicators.
12.12, table: Extra line deleted under "Hollow Dot Over Equals Sign"

2-15-23 Practice 12C: Code switching repaired on line 6. An alternate transcription of item 3 is given.

2-19-23 Practice 12D, braille and simbraille: Opening Nemeth Code indicator moved to the end of line 4 and deleted from the beginning of line 5.
Practice 12G: Comment added.

4-4-23 12.3.3 and Example 12-3 clarified and expanded.

LESSON 13

12-19-22 *Print copy:* The size of the minus sign was standardized, throughout.
13.1.5: Only the slanted line through the empty set symbol is now in the code.
Practice 13A: Placement of code switch indicators has been changed.
13.10.1: Mention of icons deleted. Second paragraph moved and changed.

1-8-23 13.9.4: Subsection a. added. New example 13-19. Further examples renumbered.

2-19-23 *Print copy,* Practice 13B, line 5, simbraille: Nemeth Code terminator deleted.

LESSON 14

12-23-22 New Example 14-13. Further examples renumbered.
Renumbered Example 14-16, lines 2 and 3, braille: Space inserted following each function, before each x. Parentheses removed.

1-9-23 14.2.2: Narrative clarified. Comment to the first sample changed.
Example 14-13: Variable changed to beta.
14.3.4: Sample changed to include parentheses. Comment added.

4-4-23 Practice 14E: Commentary added to the transcription.
Example 14-20: Comment added.
Practice 14H: Commentary added to the transcription.

LESSON 15

12-29-22 *Print copy*: The size of the minus sign was standardized, throughout.
Practice 15D, *braille*: Nemeth Code terminator inserted at the end.
Practice 15E, *braille*: Opening Nemeth Code indicator inserted at the end of line 4.
4-4-23 15.2.1: Heading added.

LESSON 16

12-29-22 *Print copy*: The size of the minus sign was standardized, throughout.
Practice 16G: Instructions added.
Example 16-21: The last expression is moved to start on line 13 with its opening Nemeth Code indicator.
1-27-23 16.14: A sentence was added about placement of the key.
4-4-23 16.6.1: Added the word "given".
Example 16-17: Comments expanded.

LESSON 17

12-24-22 17.10: This entire section has been updated to follow the new rules.
17.17: Last sentence deleted.
17.17.1: Text updated.
17.17.3: Only the preferred method is retained.
Examples 17-34 and 17-35: Commentary expanded.
12-28-22 Example 17-9: Comment added regarding placement of the Nemeth Code terminator.
Example 17-31: Comment added regarding margins.
4-4-23 Example 17-22 Clarified; commentary edited.
Example 17-34: Item number changed to "8".

LESSON 18

10-17-22 Examples 18-8b, 18-13, 18-14: Spacing corrected to assure at least two blank cells between columns.
18.6.3.a Space-Saving Alternative: This section has been deleted.
10-21-22 *Braille copy:* Instructions for item (2) in Exercise 18 were changed.
10-22-22 Example 18-17: Ellipsis deleted.
12-9-22 *Braille copy:* The instructions for Exercise 18 were changed slightly.
12-28-22 *Print copy*: The size of the minus sign was standardized, throughout.
18.1: A second paragraph has been added.
18.4.3: Heading changed. Text added to the paragraph. New subitems b. c. and d. New Example 18-7. Further examples renumbered.
Example 18-9b: Commentary revised.
Practice 18A: Instructions revised.

Examples 18-14 and 18-15: Numbers changed to be right-adjusted.
Example 18-16, alternate transcription: A blank line was inserted before the closing switch.
Braille copy: Instructions to Exercise 18 changed.

4-4-23 Example 18-7, braille: Numerals aligned as printed.
18.10: Narrative expanded.

LESSON 19

11-11-22 *Print copy*: The size of the minus sign was standardized, throughout.

12-29-22 Practice C, second page of braille/simbraille: The opening switch is moved to end line 2 and deleted from line 3; Commentary added regarding line 2. The word "What" changed to "Which" on line 7.

4-4-23 Practice D, page a92, line 20: The Nemeth Code terminator moved to cell 1.

APPENDIX A

12-29-22 *Print copy*: The size of the minus sign was standardized, throughout.

APPENDIX B

12-28-22 *Print copy*: The size of the minus sign was standardized, throughout.

APPENDIX C

1-28-23 The section on Placement of Code Switch Indicators was revised, most significantly in the section regarding Itemized Material.

3-11-23 Page C-11: Paragraph rewritten under “Switch Indicators with Displayed Mathematical Material”.
Improvements made to the narrative throughout.