

Question and Answer Document on Text Enlargement

The information in this document is being provided as guidance on large print as school personnel determine appropriate alternative formats for students with disabilities. School personnel are strongly encouraged to work with the student's team, including Teachers of the Blind or Visually Impaired as appropriate, to determine whether a specific alternative format is suitable for an individual student. What follows are common questions and answers reviewed with school personnel by the Resource Center for the Visually Impaired (RCVI).

Q1. What is the process for ordering large print books from RCVI?

A1. Go to <http://www.p12.nysed.gov/specialed/aim/braille.htm> for information related to the large print ordering process. The Book Request Form [<http://www.p12.nysed.gov/specialed/aim/bookrequestform.pdf>] is used to request books from RCVI staff, who research their availability. For other specific information on the RCVI, please review <http://www.p12.nysed.gov/specialed/nyssb/rc.html>.

Q2. Is there a cost to the district, when ordering enlarged books and/or materials for students?

A2. Generally, there are no costs for enlarged materials for students. Eligible students have access to American Printing House (APH) Quota Funds which are often used to pay for enlarged materials. The only time the district incurs a cost, is when materials have already been enlarged and are available to be purchased by an outside vendor.

Q3. How can I ensure that my students' enlarged materials are completed in a timely manner?

A3. It is never too early to send a request to the RCVI. When it comes to enlarged materials, the earlier the order is submitted the better. Generally, enlarged materials can start to be ordered in January in order for it to be completed by the following September.

Q4. What should we do with enlarged materials that were produced for my student, and they are finished with them?

A4. All materials should be returned to the RCVI in Batavia. We enter them into our inventory, where it is available for the next student in the State who may need it.

Q5. How do I order large print materials? What information does the Resource Center need to order large print materials?

A5. You would use the Book Request Form [<http://www.p12.nysed.gov/specialed/aim/bookrequestform.pdf>]. Standard large print is 18-point font. If a student needs something larger, it will have to be done as a special order. Depending on the layout of the regular print book, the New York State vendor for large print may be able to accommodate special requests. The availability of NIMAS files for the requested title is mandatory for any special orders.

Question and Answer Document on Text Enlargement

Q6: How much do I need to enlarge handouts for someone with low vision?

A6: Ideal print size will depend on the needs of the individual. The student is the best source of information regarding preferred print size. However, large print is usually defined as 16- to 18-point bold type, depending on the typeface used. A standard Roman typeface, using upper and lower cases, is more readable than italicized, oblique, or condensed fonts.

Q7: Is it possible for me to enlarge items on my own for my students?

A7: It depends upon the needs of your students. For standard enlarging (enlarging print from standard 12-point text to 16- or 18-point) you can use a 150-165 percent enlargement setting on a regular photocopier. For electronic documents, enlarge the font size before printing. As appropriate, please follow all copyright rules and regulations when enlarging your own materials (<http://www.copyright.gov>). For enlarged text and items that you cannot do on your own, please feel free to contact RCVI to assist you with ordering these materials for your students.

Q8: With regard to text, other than enlarging the size, what are some alternative ways that RCVI can help me to ensure that materials are appropriately adapted to accommodate students with low vision?

A8: RCVI will assist you with securing adapted materials in several ways. Most commonly, RCVI assists with ensuring that materials are adapted by:

- using a Roman type standard serif or sans-serif font, size 16- or 18-point. These fonts tend to have more space between letters (i.e., noncondensed);
- printing text using the highest contrast possible. Light or white letters printed on a dark background are usually more readable than dark letters on a white background. High contrast can be difficult to achieve with colored type on a colored background. It is important to check with the student to see what type of contrast he or she prefers;
- allowing extra line space between the lines of text. The spacing should be at least 25-30 percent of the point size. For example, when using a 16-point font, there should be at least four spaces between the lines of text;
- ensuring extra-wide margins and the ability to open a printed document flat are helpful if the document is bound; and
- using paper with a matte finish, which is easier to read than a glossy finish.

Remember, the student is the best source of information about preferred text characteristics. RCVI will help you with securing the preferred text. However, RCVI is unable to decide which text format is most appropriate for students.

Q9: What is the minimum size of any typeface and the standard font for large print?

A9: The minimum size of any typeface to be used on most documents is 12 points. Most large print is 18 points.

- 12 pt. = regular print
- 14-16 pt. = "enlarged" print (not considered large print)
- 18 and larger = large print

Question and Answer Document on Text Enlargement

- 18 and larger, with other formatting changes = enhanced print

Note: Students who need print 28 points or larger should probably be considered as candidates for alternative forms of education (i.e., Braille education/instruction).

Q10: Are there any specific issues that I should think about when selecting a font for use by persons with low vision?

A10: Yes. Several things to think about when selecting a font for use by persons with low vision are:

- The upper case "I" and Roman numeral I, the numeral 1, and the lower case l, should all look different from one another.
- The font should be wide-bodied with space between each letter. Letters which have a bubble inside them, such as o, d, g, and others should have plenty of space inside the bubble.
- Punctuation should be rounded, large and very visible.
- Font strokes should be solid and without gaps in them.

Q11: Should I consider the use of white space when ordering enlarged text?

A11: Yes. Ample white space makes a page more readable and useful because it provides contrast to the print and creates luminance around the text. The primary ways to create white space on the page are to use generous margins, e.g., margins of at least one inch for letters and other business documents. Another way to provide white space is to provide ample spacing, leading and kerning to text.

Writer should be encouraged to:

- Indent 1 inch at margins
- Justify left margin, unjustify right margin
- Use a wide, san-serif font for ample kerning
- Space 1.25 between lines, especially on forms where underscores and boxes are used to provide space for writing
- Double space (30-34 pt) between paragraphs or other bodies of text
- Use block paragraph style, no indents

Other ways to include white space are: supply headings and subheadings; enumerate items in separate paragraphs; and create subparagraphs or bulleted lists.

White space is especially important on forms. Lots of horizontal lines or grids with horizontal and vertical lines can be very difficult for some people with visual impairments to follow across the page. These difficulties can be minimized through the use of pastel, colored background for every alternate line. Example below:

State	Year	Auto Sales	Home Sales	Boat Sales
Alabama	2010	309,436	99,307	27,397

Question and Answer Document on Text Enlargement

Delaware	2010	214,556	78,477	39,765
Virginia	2010	349,887	125,095	33,482
Washington	2009	272,299	69,433	30,442

Crowded text detracts from readability and usability because contrast is limited by too much black text. In studies, persons with normal vision who filled-out crowded forms often lost focus before they reached the end of the task. Persons with vision impairments struggled more than their typically-sighted peers with forms and text.

Q12: Should I consider adding headings and/or subheading to documents that I have enlarged for my students?

A12: Yes. Using headings and subheadings makes a document much easier to follow for students. Not only do they serve as navigational aids for readers, they help writers organize thoughts more logically than they might otherwise. The use of color, style, size and typeface of headings and subheadings has a very real effect on the readability and usability of a document.

The best colors for headings (besides black, in descending order) are:

- Federal Blue – C:100, M:60, Y:0, K:6
- Regulation Yellow – C:0, M:6, Y:100, K:0 (to be used with dark background)
- Federal Gold – C:0, M:11.5, Y:94, K:6
- Regulation Green – C:100, M:0, Y:91, K:6
- Regulation Brown – C:0, M:79, Y:100, K:72
- Regulation Purple – C:87, M:100, Y:0, K:8.5
- Regulation Red – C:0, M:91, Y:65, K:11.5

Note: Gray should never be used for either text or background because it offers poor contrast. Red is used only as a last resort because people with color blindness are taught that when they see a color that might be either red or green (they look very similar) they are to interpret it as green. Red is seldom used in documents for users who have altered color perception.

Q13: When ordering and submitting materials for enlargement, should I consider avoiding all caps or all bold for continuous or larger amounts of text?

A13: Yes. In the electronic age, an all cap or all bold passage has acquired the visual aspect of implied volume. A MESSAGE IN ALL CAPS IS RECEIVED AS A SHOUTED MESSAGE. Additionally, continuous text in large caps is difficult to read for any length of time, due to the crowding effect. All caps can be altered to one of the following options (listed in order of usability):

- Title Case
- Title Case bold
- Title Case different color
- Title Case different color and bold
- Title Case bold and underscored
- Title Case underscored
- Lower Case bold
- Lower Case different color

Question and Answer Document on Text Enlargement

- i. Lower case different color and bold
- j. Lower case bold and underscored
- k. Lower case underscored

Q14: What about italics in enlarged print materials? Should I avoid using them?

A14: Generally speaking, **bold** or underscore is preferable to italics. Italics are more difficult to read than regular typefaces because individual letters lean into the territories of their neighbors.

Q15: How should I devise a list when submitting items for enlargement?

A15: Enumerate items by breaking down lists into groups of similar items. Use a tabulated list to allow the writer a method to display the points better, and to improve the sentence structure. Make sure the list falls at the end of the sentence, not at the beginning or in the middle.

Q16: When should I consider using bullets when submitting documents for enlargement?

A16: When a paragraph or passage includes a list of more than three items, bullets are encouraged. They make lists more readable, and more memorable. In a case where many lists are used, it may be helpful to color the bullets and/or the text in a list.

Q17: How many characters should be submitted per line on text that needs to be enlarged?

A17: Ideally, a line of type should accommodate 62 characters in 12 point typeface, 39 characters in a large print format, give or take a few characters. In heavy text the reader's eye tends to get tired in mid-line. One way often used to eliminate this effect is to use a two-column format. But columns are not recommended for text that is to be read by senior citizens, or by people with visual impairments. The visual shift from right, back to left, is the most difficult reading maneuver to do. It is also the point at which most errors occur. Thus the use of columns is discouraged because it doubles the number of visual shifts.

Q18: When ordering materials for students what kind of background should be ordered?

A18: The use of busy, graphic backgrounds for text is popular now but it renders text very difficult to read, in many cases. Plain backgrounds, preferably of off white, cream, ivory, yellow or pink are best for reading black text.

Q19: Should maps, charts, graphs, and graphics maintain the same standards as text for readability and usability?

A19: Yes. All too often, maps, charts, graphs and graphics that accompany text have smaller type, different fonts, poor contrast, and too little white space. Most print enlargers have made a commitment to keep its maps, charts, graphs and graphics as readable and usable as its text. Guidelines for maps are also applicable to graphics used in large format. In general, the primary guidelines are:

Question and Answer Document on Text Enlargement

- a. Keep only graphic content that is needed for a student to understand the text, perform calculations, or otherwise arrive at an understanding of the desired concept.
- b. Text and numerals should not be overlaid or under laid with graphic content.
- c. Charts and graphs should be simple and use the following colors:
 - Black
 - White
 - Regulation Yellow — C:0, M:6, Y:100, K:0
 - Federal Gold — C:0, M:11.5, Y:94, K:6
 - Federal Blue — C:100, M:60, Y:0, K:6
 - Regulation Brown — C:0, M:79, Y:100, K:72

Note: The colors listed here are all visible to 99.992% of students, even those with color blindness. This is why they have been selected. Gray or gray scale should never be used in a chart or graph.
- d. If necessary graphic content appears in color for a student's peers, it is usually preferable to maintain color for students with visual impairments, provided the colored graphic has good contrast.
- e. Where color is not possible, simple black-and-white line drawings are preferred over grayscale.
- f. Drawings for students with visual impairments should always be simple, have a horizon, and eliminate extraneous material not needed for the interpretation of the drawing.

Q20: What are RCVI's suggestions for binding students' documents in order to enhance their use?

A20: RCVI suggest that schools consider what is best to meet the needs of their students. Spiral, twin loop, and loose leaf materials are all suitable for use by most teachers and students. Occasionally a hard bound book is appropriate, but document designers should take care to understand the setting and manner in which the document will be used in order to select the best binding option.