

“A Little Bit of This and Not Too Much of That...”: Is There a Recipe for Class Display Load Level in Elementary Schools?

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The classroom display in elementary schools usually reflects the teacher's efforts and vision. Upon entering an elementary school classroom one may often encounter visual overload. How can teachers determine the appropriate amount of elements to be on display? How can they create the accurate recipe for pleasant and efficient displays? It seems that, in practice, this might resemble Grandma's cake recipe, which was passed down from generation to generation. *“Just put a little bit of this and not too much of that...”* This article addresses these questions and provides best practices recommendations in an appendix.

Upon entering an elementary school classroom one will often encounter visual overload consisting of a diverse set of texts, images, colors, and shapes covering its walls. The classroom display is not an isolated area. Indeed, the display shares its space with many other colorful elements: schoolbags, pencil cases, curtains, furniture, and students who wear a variety of different colors.

Usually, the classroom display manifests the teacher's efforts, specifically up to and including, the fourth grade. The task that teachers face is not simple: if the display appears to be limited the teacher may be perceived as not being invested enough. However, if the display is too diverse and colorful the teacher might be regarded as someone who creates visual noise, which could bewilder both students and classroom guests.

How does one know what should be displayed? How does one determine the appropriate number of elements to be displayed? It seems that in practice, this might resemble Grandma's cake recipe, which was passed down from generation to generation. *“Just put a little bit of this and not too much of that...”*. Does one ever know the appropriate amount; just what is the accurate recipe for a pleasant and efficient display?

This article begins with a survey of the literature, separated by key elements to consider. First we review aesthetics and its relation to visual overload leading to distraction. In recent years research concerning the visual clutter and aesthetics of classroom displays began to surface (Sebba, 2004; Emanuel, 1996, Politi 1984 in Cohen, Ben Pashat and Berkowitz, 2006; Dudek, 2000; Fisher, Godwin and Seltman, 2014; Komendat, 2010; Tarr, 2001, 2004;

Saarela, 2007). Education and aesthetics experts believe that the classroom - namely, a place that requires concentration - is expected to be a relaxing space that minimizes any form of distraction. Hence, classroom displays should not lead to distractions or visual disturbances (Dudek, 2000; Edwards, 2005).

Tar (2004), dubbed this phenomenon “cacophony of imagery.” In her view, this visual overload leaves little room for the original work of students. Thus, the display might compete with their creations and consequently silence their imagination and creativity. Similarly Newman, Copple and Bredekamp (2000) warned that, “More does not mean better. In a room cluttered with labels, signs, and such - print for print's sake - letters and words become just so much wallpaper” (In Tarr, 2004). Although many assume that a stimuli-rich environment contributes to the learning process, it is important to be aware that numerous displays can lead to “visual noise” (Sebba, 2004; Jacobson, 2011; Emanuel, 1996, Politi, 1984 in Cohen, Ben Pshat and Berkowitz, 2006). Further, overuse use of color in a learning environment may impair the students' ability to concentrate, hinder their learning tasks, and/or lower their academic achievements (Casntini-Hovav, 2004). Even a recent study (Fisher, Godwin and Seltman, 2014) conducted among kindergarten students, showed that on the one hand, more time was required for students to complete their tasks, while on the other hand, their scholastic achievements were lower when the display was overloaded.

Hativa (2003) notes that the first step in learning involves the process of absorbing information through the senses, which eventually reaches the learner's active memory. One of the factors that prevents the entry of such information is the external factor of various types of noise. One source of noise is visual noise, which impairs the ability to see and understand what one sees.

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Saarela (2007) believes that only a display that promotes and inspires a sense of creativity - not one that brings about an overload of information to the senses - should be utilized. In a similar manner, Tarr (2004) underlines that elementary school teachers are under a great amount of pressure to contribute to the development of their students' reading and writing abilities by redesigning the classroom environment. As such, they tend to design classrooms that are overloaded with items like boards with letters, words, and pictures that aim to reinforce students' reading skills.

Dudek (2000) argues that children are bombarded with information and advertisements that usually promote the culture of consumption. The result is that children's attention is diverted, making concentration difficult. According to Dudek, this is the shortcoming of the culture in which we live, therefore it is important to design classrooms with a different approach in mind; one that will shape a relaxing environment with minimum distractions and/or visual disturbances. Tarr (2004) and Komendat (2010) argue that such visual overload could create chaos and confusion. Tarr proposes critical examination of display material to determine if it is actually contributing to students' learning process, or if it distracts them due to the visual load it creates. Komendat adds that a busy classroom can cause it to look smaller than it actually is. Alongside the opinions above, there are educators with a different perspective: for example, Philip Beadle (2005) who was *The Guardian's* Teacher of the Year, noted that monochromatic classrooms promote a uniform set of opinions and therefore, argues that classroom displays should be colorful.

As for physical position, a few educators and researchers (Teachernet, 2009; Smawfield, 2006; Dudek, 2000) emphasized the importance of display location, arguing that students' height needs to be taken into consideration as well. A display that is placed at the students' eye-level creates a sense of ownership, especially if it is made up of student work. Neuman, Copple, and Bredekamp (2000) also refer to the placement of information, and wonder if it is appropriate to position numbers and alphabet strips, or any other visual materials that aim to benefit the students, high on the wall, or whether it would be more beneficial to position them along the students' tables. Milo-Shussman (2016) found that the location of an exhibit should be dependent on its content. For example, educational materials that students need to use during lessons and those they need to memorize should be on walls that are easy for the children to see while sitting. Exhibits of student work and more social displays, like birthdays, can be located on the classroom's rear wall.

Other issues regarding the characteristics of an effective display revolve around the question of display content, its objectives, and the teacher. The display's volume and quality mainly depend on the needs of both teacher and students,

along with the teacher's pedagogical approach and personal characteristics. Just as the fashion style of teachers is diverse, their classroom displays also vary. Since students change from year to year, the classroom display must be adapted accordingly. Therefore, an appropriate display in a certain class configuration might not be suitable in another.

In order to find the right mixture it is necessary to outline the display's design and to determine its objectives: educational display, acculturation display, social display, display that emphasizes individualistic aspects, or a display that aims to decorate and create the classroom's atmosphere. Another issue focuses on how the teacher would like to use the display; examples include: displays that accumulate rules, displays that explain topics, and displays that engage students with active learning. Each type of display would have different characteristics, so only after examining the contents of the display can one investigate its visual features. Selecting titles, for instance, would be influenced by the color of the display's background, or the distance that is required to properly read the display's content. Choosing a visual representation would be influenced by the content and text on the display and by the location of the display within the classroom.

Most teachers have not learned how to properly construct a classroom display, how to properly shape it in accordance to their educational goals and the classroom's spatial characteristics, or how to properly execute their design. A recent study (Milo-Shussman, 2016) found that 65 percent of teachers (n=207) never learned how to plan, execute, or construct a display involving pedagogical content. Moreover the research found that 30 percent of teachers noted that their display was the product of their own personal experience, 21 percent stated that it was the product of their own intuition, 17 percent noted that their display was the result of observing other teachers, 10 percent said that an art teacher assisted in the process, and 9 percent noted that various websites were their main source of inspiration.

Elementary school educators are measured and evaluated on the quality of their displays by the school's administration, parents, and other teachers. Much like Grandma's cake recipe, there is no substitute for teacher experience and sensitivity. Because of the many expectations placed upon teachers, the rising numbers of students experiencing attention disorders, and in consideration of recent findings (Milo-Shussman, 2016) arguing that displays in elementary schools are educational and social tools that support students' individualistic socio-emotional learning - there is room for teacher training on this important issue.

In conclusion, it is necessary to understand that there is no accurate formula that can determine the ideal number of elements for classroom displays. This, of course, depends on

the display's background color and the colorfulness and type of each of its elements (texts, pictures, drawings, maps, graphs). Much like when baking, certain rules exist. However, the final result depends solely on the baker, in this case, teachers.

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Appendix

At present teachers can be pulled between contradictory expectations and recommendations. While perceived or real pressure to impress from school administrators, fellow teachers, etc. may drive displays towards visual overload, the research literature provides evidence and recommendations for moving away from such expectations toward more pedagogically-sound approaches. Therefore, the following best practices recommendations are offered.

Best practices recommendations:

Clearly there is no "one size fits all" recipe; these provide general advice.

- Minimize non-relevant elements: Remove content that is no longer relevant. This could involve materials that have already been covered or past holiday-related themes.

- Decorations: Reduce the use of visual representations that operate mainly as a form of decoration and are not relevant to materials covered in class.

- Color: The colorfulness of the displayed items should be considered alongside the color of the display's background. In areas with a sizable background it is advisable to use unsaturated¹ colors and to save saturated colors for small certain elements that require the students' attention. Too many colors on the same wall can create a visual overload.

- Display's Title: Titles should be large enough so they can be seen from anywhere in the classroom. In order to ensure their readability utilize contrasting colors between the text and the background. It is also desirable to use complete letters instead of their outlines. Rainbow-colored letters are not always legible and can create visual overload; it is more appropriate to use a uniform color. If the title has a background do not place visual representations below the text, this ensures readability of the text. Choose a readable typeface. Lastly, it is beneficial to form a distinction between the main heading and the subtitle, utilize letters of the same type with a slightly smaller font.

- Separate sections: It is advisable to form a distinction between each section. The separation can be done by maintaining space between each section or by placing a border around each section. The borders should not utilize too many colors or

¹ Saturation defines a range from pure color (100%) to gray (0%) at a constant lightness level. A pure color is fully saturated. Saturation is the purity of a color (Rise Vision, 2016).

“A LITTLE BIT OF THIS AND NOT TOO MUCH OF THAT...”: IS THERE A RECIPE FOR CLASS DISPLAY LOAD LEVEL?

shapes. A slight variation of color will ensure that the border does not compete with the displayed information or does not attract too much attention.

- Plastic cover (lamination): If the teacher chooses to cover certain works with a clear plastic sheet for protection, it is necessary to avoid light reflection. Reflection can make it difficult to read and create more visual noise.
- Frames: When student work is displayed on letter-sized paper, the teacher can create colored frames, placing students' works on top. This creates an organized and calm display.
- Hanging: The way in which certain displays are placed can create either a messy or an organized look. As such, the teacher should treat this aspect seriously. Preserving a gap between each display - particularly when displaying student work - ensures that they do not overlap.
- Content & Visual Connection: It is necessary to maintain the relationship between the displays content and form. It is important for the spectator to be able to clearly understand the connection between the text and its visual representation.
- Student Height: The display should be positioned according to the students' height.
- Composition: Each section of the display should be able to be perceived as a separate form of composition, each wall as a wider composition, and all of the classroom walls as a full composition.
- Visual Unity: It is advisable to create a visual unity by including consistent colors and titles.

“A LITTLE BIT OF THIS AND NOT TOO MUCH OF THAT...”: IS THERE A RECIPE FOR CLASS DISPLAY LOAD LEVEL?



Image 1: First Grade. What is the appropriate amount of visual representations on a classroom door? The classroom environment is composed of various elements: the display, the colors of the students' apparel, their schoolbags, and their pencil cases. All these elements should be taken into consideration.

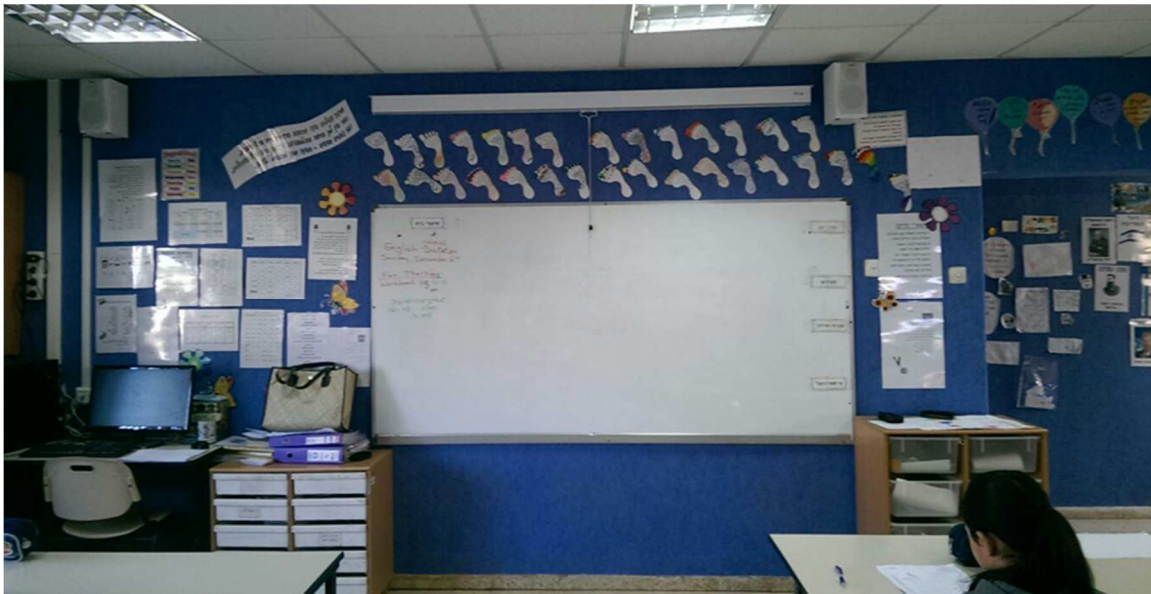


Image 2: Fifth Grade. Wall Panel: Can a student - even one without attention disorders - focus on the blackboard's content while the surrounding classroom walls are filled with visual temptations?