

# Reinforcing Multiliteracies Through Design Activities

Tonia A. Dousay

**Abstract** Now, more than ever, the need to incorporate literacies into instructional strategies is important. As an instructional strategy, design activities bring together available resources to encourage students through the process of constructing new meanings and motivate students to take ownership of the media and content they transform into new creations. Two examples of design activities include digital stories and comic book creation. Digital stories provide a unique outlet for students to find a voice and share their stories with one another. Creating comic books, specifically, draws upon the visual nature of the medium and blends writing activities with design activities. This chapter explores the ideas of design activities and provides general guidance for educators seeking to incorporate design activities as an instructional strategy.

## Introduction

The support for literacy and literate students is not new. Cazden et al. (1996) noted that literacy education plays an invaluable part of preparing students for their future. The challenge is that evolving technology and the media created with it have changed the landscape of literacy and what we consider to be a literate individual (Bleed 2005). This literacy evolution has occurred through both social and cultural shifts (Kellner 2000), and, with this shift, a renewed focus on visual and media literacies has arisen.

Now, more than ever, the need to incorporate literacies into instructional strategies is important. Students are constantly bombarded with media-saturated messages that influence the way they process information and construct meaning of the world around them (Chung and Kirby 2009; Metros 2008; Morrison et al. 2002). This construction is part of the social revolution that is permeating classrooms of all levels. As learners become increasingly multimodal, they must therefore develop the skills necessary to process and engage with the vast amounts of information so readily available (Black 2009). No longer are literacy and technology separate

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entities but rather intertwined elements of life and learning. This is only the beginning, though. Today's students are likely to encounter multimodal communication tasks in their future careers, and educators must address curriculum that prepares a visually literate citizen (Brumberger 2005; Mills 2010). This process can start with preservice teachers, but must include teacher educators, and, eventually, in-service teacher professional development. Shoffner et al. (2010) conducted a case study examining the meaning of literacy to secondary English language arts teachers and found that although in-service teachers are able to expand and adapt broadening concepts of literacy, teacher educators must also recognize this importance. Indeed, in a survey of preservice teachers' views regarding literacies, Al-Hazza and Lucking (2012) noted that future teachers are often assumed to be media literate and make the connection to increasing technology use among their future students, but fail to make the connection between literacies. This disconnection and lack of definition provide insight into a growing issue with teacher preparation and eventually in-service teacher adoption.

## Defining Literacies

Before examining methods to address visual or media literacy in the classroom, it is important to review the background and definitions of these terms. Brill et al. (2007) noted that the many dimensions of visual literacy make it difficult to accept a common definition. However, from a historical perspective, Debes' (1969) definition provides a comprehensive overview:

Visual literacy refers to a group of vision-competencies a human being can develop by seeing and at the same time having and integrating other sensory experiences. The development of these competencies is fundamental to normal human learning. When developed, they enable a visually literate person to discriminate and interpret the visible actions, objects, symbols, natural or man-made, that he encounters in his environment. Through the creative use of these competencies, he is able to communicate with others. Through the appreciative use of these competencies, he is able to comprehend and enjoy the masterworks of visual communication. (p. 27)

In short, the visually literate person can discriminate, create, and comprehend visual objects as well as conceptualize and mentally visualize images (Bleed 2005; Brill et al. 2007; Metros 2008). The multimodal nature of current trends, therefore, highlights why visual literacy is such an important consideration in education and learning.

Until fairly recently, defining and applying only traditional and visual literacies have been sufficient to fulfill the needs of society. Literacies, collectively, are socially recognized and encompass all of the ways in which an individual generates, communicates, and negotiates meaning through a medium (Lankshear and Knobel 2011). The current techno-centric shift calls for multiliteracies, consisting of traditional reading literacy, digital literacy, media literacy, and more (Bazalgette and Buckingham 2013; Black 2009; Garcia 2013; Kellner 2000). Even if the trend is to adopt the term *multiliteracies*, scholars and educators must explore and agree

upon individual components, and how each is defined in order to proceed with best practices for collective integration. *Reading literacy* focuses on the ability to read and write. The term *literacy* usually implies *reading literacy* in most contexts. As previously stated, *visual literacy* focuses on interpreting and using visual elements. The National Association for Media Literacy Education (NAMLE; 2014) views *media literacy* as multiple competencies focused on accessing, analyzing, evaluating, and communicating information in a variety of mediums. Broadening the scope of literacy to an integrated approach reveals that these concepts are deictic, meaning that literacy no longer focuses on the sole concept of reading, but is influenced by the context in which it is referenced (Leu et al. 2004). Thus, the different contexts in which materials are presented requires not only multiple literacies but also multimodal literacy (Gee 2003), which calls to mind the current trend and renewed focus in education. The result is that interconnected multiliteracies heavily influence the way information is processed and used, and modern technologies have had a significant impact on study and application.

Educators who seek to address multiliteracies may find that there are practical benefits to introducing and applying these skills in the classroom. From news outlets to social media, sharing videos, images, photographs, and user-generated memes are common practice. However, Baker (2013) found that students often lack the ability to recognize digitally altered images. This phenomenon can hinder classroom instruction if students fail to adequately assess resources referenced for homework and projects. Noting that media literacy, specifically, is reflective and encourages critical evaluation of design constructs, deconstructing artifacts to derive personal meaning and distinguishing between overt and covert messages becomes an invaluable skill (Chung and Kirby 2009; Rogow 2011). Learners who master multiliteracy skills, therefore, are able to meet, and exceed, expectations as their proficiency increases with each applied practice. Less time is spent remediating concepts and more time is available to devote to more complex assignments. By incorporating multiliteracies into the curriculum, students develop the knowledge and skills necessary to identify incorrect or outright false content or carefully consider how to use content for their assignments.

## Design Activities

Simply recommending that educators consider multiliteracies is not enough. Guidance must be provided on how to introduce and reinforce multiliteracies throughout the curriculum. It is most common to find visual literacy in the art education classroom (Baker 2013) and indeed preservice art education teachers are more often exposed to these concepts, but there is clearly a need to distribute it into other disciplines. Considering the interconnected nature of multiliteracies when using media literacy, the result is individuals developing critical thinking skills, thus, enabling the transition from media consumers to media producers (NAMLE 2014). It is reasonable to think that approaches which provide hands-on opportunities to

practice and apply concepts may find the most success. As Kameroner (2013) noted, (media) literacy education must include a production component. In fact, instructional strategies that include design activities, mixing and remixing the works of others, have the potential to motivate even the most reluctant of learners, increasing students' attitudes towards reading, and empowering students' ability to visualize reading materials (Kenny 2011; Mills 2010). This means that educators must consider the importance of incorporating created multimodal media, or the combination visuals, text, and audio (Bazalgette and Buckingham 2013), into literacy education. One possible strategy is to implement design activities for students to learn and practice the competencies of multiliteracies.

### ***What Is a Design Activity?***

Design-based learning activities, or design activities, are a constructivist instructional strategy with applications of problem solving. Specifically, design activities situate learners in an experience that requires specific tasks. It was Jonassen and Reeves (1996) who suggested that design be put into the hands of learners to allow the opportunity to use technologies as cognitive tools, analyzing, accessing, interpreting, and creating new meaning and products. Rather than just read about or listen to an explanation of a concept, learners use the very tools their teachers often implement to engage with the concepts and construct their own meaning. From a more in-depth perspective, Black (2009) stated:

Designing is the process of drawing from available designs to construct new meanings and representations of the world. Listening, speaking, reading, and writing are all examples of designing, as an individual takes in or utilizes available semiotics resources and then uses his/her own resources (linguistic, cognitive, semiotic) and life experiences to translate the available designs into the redesigned. (p. 76)

As an instructional strategy, design activities bring together available resources to encourage students through this process (Black 2009) and motivate students to take ownership of the media and content they transform into new creations (Chung and Kirby 2009; Lawanto et al. 2013). Interestingly, students who participate in design activities exhibit higher levels of intrinsic motivation and knowledge retention (Lawanto and Stewardson 2011). When a learner is given ownership of his or her learning, this motivation phenomenon takes over. The design activity, therefore, is a powerful and interdisciplinary strategy with the potential to engage learners in an autonomous journey to explore and apply multiliteracies.

### ***Multiliteracies and the Design Activity***

Finding appropriate strategies and methods with which to incorporate multiliteracies may be difficult for some educators. From the myriad of resources available to the shifting landscape of instructional methods and emerging technologies, many

classroom teachers struggle with how to effectively incorporate or use current technologies (Robin 2008). Part of the issue is that of teacher attitudes and abilities in addition to access to technologies. Addressing this issue with targeted applications in preservice teacher education is only the beginning. In-service teacher professional development must follow suit. What many teachers and administrators overlook is that today's young children show evidence of using, producing, and sharing media as part of their regular, daily activities (Buckingham et al. 2014). It follows, then, that leveraging this trend and providing sound guidance to in-service and preservice teachers may be the key to introducing and practicing multiliteracies in classrooms and formal education. Strategies that promote engaging in multiliteracies begin with informal experiences that incorporate media (Jenkins 2006) and encouraging media-centered projects, regardless of discipline (Bleed 2005). While design activities can begin in a specific, singular subject area, they must extend into other areas of the learning environment.

The flexibility of the design activity allows for implementation and adaption at every grade level and within every discipline. From language arts and history to mathematics and science, students can engage in design activities within a specific subject or blend subjects together as they rely on textual knowledge, contextual content, and multimodal components required to produce an artifact (Mills 2010). Design activities can also be incorporated into the curriculum at any level. Preservice teachers could benefit substantially from design activities in their technology integration coursework, which is common among teacher education programs. As these preservice teachers transition into in-service teachers, they should be called upon as teacher leaders, providing guidance and training to their peers. Given the benefits of addressing multiliteracies and increasing learner motivation, incorporating design activities into preservice teacher curriculum creates a potential multiplier effect as these educators consider implementing design activities into their future classrooms. Thus, regardless of context, design activities address the needs of a wide variety of learners.

## **Practical Applications of Design Activities in the Classroom**

The broad, inclusive nature of design activities also means that there are a number of ways in which to apply the strategy in classrooms. Engaging in design activities encourages students to use available resources to conduct research online, identify appropriate visuals, plan narration, and address ethical considerations, such as copyright (Baker 2013). This level of engagement in a singular activity illustrates an integrated approach to teaching and reinforcing multiliteracies. Specifically, when engaging in design activities, five questions adapted from applied media literacy instruction (Hobbs 2007) can guide students through the process of selecting appropriate media for use in design activities. These questions are:

1. Who sent the message and why?
2. How does the message attract and hold attention?

3. What emotional and sociological factors are expressed in the message?
4. How might others interpret the message differently?
5. What is missing from the message?

Answering Hobbs' questions engages learners in decision-making tasks, which Jonassen (2012) identified as a primary skill necessary to develop for complex problem solving. Problem solving is also identified as an essential twenty-first-century skill for learners (Partnership for 21st Century Skills 2011), which is discussed in more detail under *Standards and Assessment*.

With the design questions in mind, practical activities that fit the description of design activities include digital storytelling and comic books. Both activities require students to critically evaluate existing artifacts, deconstruct individual components, plan their own project, and engage in design to produce an artifact of their own. The following sections provide guidance based on literature and best practices for introducing digital storytelling and comic book creation as design activities.

## ***Digital Stories***

Like the concept of visual literacy, digital stories are not a new idea. The digital storytelling movement began in the late 1980s with the Center for Digital Storytelling (CDS) in Berkeley, California (Robin 2008). From an operational viewpoint, digital stories combine traditional storytelling techniques with media production tools, and often consist of photographs, video, music, and narration (Kearney 2011). For nearly 30 years, and through various advancements in technologies, the basic essence of digital storytelling has remained unchanged; instead, the advancements have been in terms of the tools used to create and disseminate stories. Indeed, the CDS continues to provide assistance and resources to individuals seeking to create digital, personal narratives (CDS 2014). Similarly, the University of Houston provides support specifically for educators and students seeking to integrate digital storytelling into educational activities (Robin 2013a). Educators considering the usefulness of digital storytelling as an instructional strategy with preservice teachers should note Li's (2007) findings that all participants in a preservice teacher survey using National Educational Technology Standards for Teachers as a benchmark for evaluating the effectiveness of digital storytelling as an instructional strategy "gained knowledge and improved skills in all areas" (p. 4). If the education community expects teachers to effectively integrate technology, it stands to reason, based on Li's research, that implementing digital storytelling provides a compelling case for introducing and applying multiliteracy skills.

As a design activity to support multiliteracies, digital stories take advantage of user-contributed content and provide an outlet for teachers to productively use common technologies found in the classroom (Robin 2008). Generally speaking, designing and creating digital stories depend upon low-cost digital cameras, editing software, and computer applications (Meadows 2003). If a teacher finds him or herself without access to necessary equipment provided by the school, there are a

few options, including taking advantage of other tools and services, such as mobile devices owned by students/parents, writing grants to obtain the necessary resources, or appealing to crowdsourcing websites such as <http://www.donorschoose.org/>, where anyone may browse projects created by public school teachers and opt to donate towards the project expense.

Although the purpose of this explanation is to describe how digital stories support multiliteracies, it should be noted that digital stories have extended benefits. For example, van Gils (2005) identified five specific advantages of digital storytelling: (1) variation in instructional methods, (2) personalized learning experience, (3) provide a more interesting means of presenting or practicing concepts, (4) easily and affordably simulate situations, and (5) more actively involve learners in the process. These advantages connect directly to the general benefits of a design activity. Digital stories also offer engagement in deeper learning, representing a convergence of student engagement, reflection, technology integration, and project-based learning (Barrett 2006). Through deeper learning, further connections can be made between teacher and learner as well as among learners. Indeed, Davis (2005) found that the personal narratives developed through digital storytelling provide a cognitive tool for emotional development of learners. The result is that implementing digital stories has widespread benefits to students, and many resources exist to support educators implementing the strategy. Decades of creating and sharing digital stories have provided many opportunities in which to study the activity and a wealth of tips and guidance related to creating stories, as detailed below.

Regardless of subject or context, students must first identify what kind of story they want to tell in order to select appropriate components. Multiple scholars have introduced taxonomies to describe types of digital stories generated by students. Lambert (2010) and the CDS focused on personal stories and classified them as character, memorial, adventure, accomplishment, recovery, love, or discovery. Robin (2006) categorized digital stories as personal narratives, historical documentaries, or instructional/informational stories. From a different perspective, Nilsson's (2008) taxonomy distinguished digital stories as being descriptive, argumentative, dramatic, or poetic. Regardless of which taxonomy is adopted for classroom use, once the type of story has been selected, students can then begin the process of planning, creating, and publishing his or her story.

The essential components of a digital story have remained relatively unchanged over the years. Robin (2013b) referred to the seven elements of digital storytelling with attribution to the CDS. However, the current *Digital Storytelling Cookbook*, published by the CDS and written by Lambert (2010), explained these seven steps in a slightly different way. A comparison of Robin's components and Lambert's process appears in Table 1.

Carefully reviewing the table, parallels can be drawn that point to specific elements in Robin's list of elements appearing as components of Lambert's steps. Specifically, framing a point of view relates directly to identifying the story and its meaning, identifying a dramatic question helps the author find the moment to illustrate, and emotional content is essential to the story line. Narration and sound track both comprise how the audience will hear the story. Similarly, balancing content

**Table 1** Comparison of digital story elements and process

Elements	Steps
1. Point of view—frames the main point and perspective	1. Owning your insights—identify the story and its meaning
2. Dramatic question—central theme to capture attention	2. Finding the moment—identify the single moment to illustrate
3. Emotional content—issues or characteristics that create personal connections	3. Owning your emotions—identify the emotional resonance
4. Gift of voice—narration to personalize the story	4. Hearing your story—use of narration, music, and/or sound effects to bring the story to life
5. Power of the soundtrack—music and/or sound effects to embellish	5. Seeing your story—use of visuals to bring the story to life
6. Economy—balance of content between visuals and audio to prevent overloading	6. Assembling your story—structure the story, visuals, and audio
7. Pacing—rhythm of progression	7. Sharing your story—screen and distribute the story

and setting the pace are parts of assembling the story. Lambert's inclusion of distributing the story once it has been created is a crucial step in bringing the activity to a close. Sharing the completed story triggers the multiliteracy cycle as the audience viewing the story begins to ask the five media literacy questions mentioned previously and embark on their own digital story journey. Sharing also provides a modeling example for future authors to follow in creating stories.

Consider the following example of an instructional/discovery digital story created collaboratively in a preservice teacher technology integration course:

1. **Point of view**—story told from the perspective of college undergraduates to incoming freshmen.
2. **Dramatic question**—two themes frame the story: facts about the university and advice about college.
3. **Emotional content**—series of images relative to each theme, focusing on iconic landmarks and popular culture set to music.
4. **Gift of voice**—given the collaborative design, no voice narration is included.
5. **Power of the soundtrack**—the song *College Kids* by popular rock band Relient K comprises the entire soundtrack.
6. **Economy**—an equal number of images appear for each theme and align with lyrics in the soundtrack when possible.
7. **Pacing**—images with text are displayed for more time than those without, but all timing is set to align with the length of the soundtrack.

This digital story follows Meadows' (2003) observation that although digital stories are created as if a movie, the story is told through photographs. All students in the course contributed two photos, which were incorporated into the story by the instructor. In terms of multiliteracies, the student collaborators had to make a number of critical design decisions. All students first had to research facts about the



**Fig. 1** Four screens from a digital story created collaboratively by preservice teachers

university. Some students chose to look up demographic information as related to a personal interest or characteristics, such as number of enrolled students from Germany or oldest sorority on campus. The advice images almost always included the student presenting the information, and the students sought creative ways to depict the message. For example, one student wanted to encourage incoming freshmen to seek adventure. He depicted his advice by hanging upside down from a tree, holding a sign, and had a friend take the picture. Another student's advice recommended that the freshmen read ahead for class. She illustrated the tip by sitting on the floor with various texts and materials stacked or spread out around her and used multiple mobile devices to spell out r-e-a-d—-a-h-e-a-d. Four screen captures from this digital story are provided in Fig. 1. The students provided suggestions for the sound track, design theme, and sequence of images in the story. At the conclusion of the activity, students reflected on how their individual images fit within the larger story and how each component was intricate to the overall process. The collaborative effort was intended as a way to help the students learn the process before working on their own stories.

The very brief overview provided here is not intended to be comprehensive, but rather introduce the idea of digital stories as a design activity. Successfully implementing digital stories in the classroom requires modeling appropriate story categories and practices, supporting projects that avoid copyright issues, mediating discussion about the published stories, and providing opportunities to evaluate and modify stories (Kearney 2011). Further, the tasks required to produce and distribute a digital story are open-ended and ill-structured (Kearney 2011). The answers to Hobbs' questions guide students through the process and engage them in problem

solving as each step of design is completed. This poses a challenge to students as they work through the steps required and exercise the multiliteracy skills necessary to accomplish the tasks. A later section of this chapter addresses resources and challenges to assist teachers with implementing digital stories as an instructional strategy.

## ***Comic Books***

Another design activity to consider is creating comic books. Comic books have a unique way of bringing visual culture into the classroom (Wilson 2005), and creating one requires writing detailed, descriptive instructions, and exciting dialogue, while also exploring visual components of illustrations and colors (Carter 2014). Unlike digital stories, which may or may not have narration or written components, comic books blend together the visual and the textual. Comics have their own rules and patterns, and the process of creating a comic book involves writing a script, revising the script, selecting an illustration style, selecting characters, building the story, and revising the story (Yolen 2010). Here, the multiliteracies concept is really emphasized as traditional literacy forms the foundation upon which visual and media literacies are built.

However, some educators may be reluctant to use comic books as a design activity due to a lack of knowledge about the genre and process or fear of using the wrong terms to instruct or engage students in discussion (Connors 2012). To that end, teachers should recognize that there are many resources available, as discussed later in this chapter, to support creating or integrating comic books into the classroom. Individuals concerned about how learners react to the use or design of comics should refer to Cirigliano's (2012) study that found even the "strictly business" (p. 35) type of learner saw value in the technical aspects of comics, while other students enjoyed being *edutained*, or learning through materials typically used for entertainment purposes (Edutainment n.d.). The *edutainment* described by Cirigliano offers a different view of engagement and motivation not seen in other design activities.

Deconstructing a comic book before implementing the design activity provides a basis for which teachers and students can both analyze and evaluate design elements that influence their story. Basic comic book construction includes page layout, story development, drawing, and narration (Morrison et al. 2002). These phases represent the general process involved in planning and creating a comic book. Within these phases, students use the following common components to tell their story (National Council of Teachers of English; NCTE 2005):

1. Script—written story with all dialogue
2. Pages—specifies page layout
3. Panels—rectangle or square blocks that contain illustrations and the script
4. Word balloons—bubbles that contain verbal dialogue from the script
5. Thought balloons—bubbles that contain characters' thoughts

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