Bricolage and Student Learning. A Practice Report

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Abstract

This practice report discusses the term “bricolage” and its relationship to student learning. The positive and negative perceptions of teachers and students as “bricoleurs” (those who practice bricolage) are discussed. An exploratory study that examines the application of bricolage in the classroom is discussed. In two different settings, the effects of bricolage instruction are shown to increase creativity and learning as students negotiate with various materials and ideas to construct new meanings.

Keywords: Bricolage; student learning; creativity; knowledge construction.

Introduction

Swiggert [...] collected a pair of scissors, two of the command module’s oversized lithium hydroxide canisters, and a roll of gray duct tape that was supposed to be used for securing bags of refuse to the ship’s bulkhead in the final days of the mission. Haise dug out his book of LEM procedures and turned to the heavy cardboard pages that carried instructions for lifting off from the moon – pages he now had no use for at all – and removed them from their rings. Lovell opened the storage cabinet at the back of the LEM and pulled out the plastic-wrapped thermal undergarments he and Haise would have worn beneath their pressure suits while walking on the moon. (Lovell & Kluger, 1994, p. 276)

When an explosion threatened the survival of the three astronauts onboard Apollo 13, the solution was found not according to contingency plans but in engaging in the act of bricolage: piecing available materials together creatively, leading to an unconventional but effective solution. Bricolage, first labeled by Claude Levi Strauss (1966), allows its participants, or “bricoleurs”; to use “whatever [is] at hand” (p. 17).

More than just a physical act, bricolage inspires creative thinking because it encourages seeing new relationships between seemingly disparate objects. With the theories of bricolage, educators can encourage creative thinking, not just for themselves but also in their students while “contributing to the construction of [students’] own identity” as critical thinkers, according to Levi-Strauss (p. 18).

More importantly, bricolage may be used to describe not only new relationships between items or ideas but also the production of something new from the reworking/recategorizing of those items or ideas. This practice report introduces a new term, “bricolearners” to describe students who construct knowledge in an experiential learning environment in an effort to create something new.
Students as Bricoleurs

In the last twenty years, several writers have addressed the theory of bricolage as it relates to teaching and learning activities.

In Jorge Ferrer, Marina Romero and Ramon Albareda’s (2006) article, “The Four Seasons of Integral Education: A Participatory Proposal” bricolage is used to describe a pedagogical approach that merely adds an experiential element to intellectual engagement: “[The bricolage approach] is deceptive because it creates the false impression that one is engaged in integral learning simply because of the relative attention paid to other dimensions of the person” (p. 14). Ferrer, et al. (2006) view bricolage as a slapdash approach to learning that doesn’t fully engage the student.

On the other hand, Joe Kincheloe (2001) discusses the positive manner in which graduate students engage in bricolage as they conduct qualitative research. Calling on Norman Denzin’s and Yvonna Lincoln’s description of social science researchers as bricoleurs in their “Handbook of Qualitative Research”, Kincheloe (2001) describes the emergence of bricolage in social science research: “Ethnographic methodologists snuggled up with textual analysts; in this context the miscegenation of the empirical and the interpretive produced the bricoleur love child” (p. 683).

More recently, Diane Schnelker (2006) picked up the thread of student bricoleurs in her article “The Student-as-Bricoleur: Making Sense of Research Paradigms” which describes how graduate students become bricoleurs by grappling with qualitative, philosophical concepts and relating what they know from personal experiences to the concepts themselves, “Encouraging students to think about alternative assumptions and their implications for practice . . . may stimulate ideas about new paradigms” (p. 56).

Even tough critics disagree about the effects of bricolage on critical thinking, none have studied the effects of bricolage on undergraduate students. Also, none of these critics value the physical aspects of bricolage as it inspires creative thinking. The interaction between the physical and the intellectual to create something new differentiates bricolage from something like an open-ended learning exercise. While such experiential exercises allow students to use their imaginations to complete a task, bricolage demands that the end result be something newly created with existing physical resources.

Applying Bricolage in the Classroom

What follows is an exploratory study that examines the application of bricolage in different classroom settings as a learning tool used by student bricoleurs, or bricolearners, as I shall hereafter refer to them.

The data on how bricolage works in a classroom setting was collected before, during, and, after the exercises were administered. Observations and exercise results of the students, interviews with the students, and journal entries/written reflections by the students were the primary sources of information of this exploratory research. This methodological approach allowed the author to look at the effectiveness of bricolage as a learning tool in a higher education classroom.

Setting 1

In a business marketing class, students were encouraged to explore the concept of value by using bricolage. The directions for the assignment were as follows:

Explore the concept of bricolage by creating something of value by just using plain sheets of paper. For this assignment you can create something that is, for instance, provocative or functional. You have to start out with an idea. You have to allow for the idea to change. If this idea does not work out, another idea will transplant it. This is an attempt to access your creativity and maybe your critical thinking skills.

This exercise was facilitated during a unit that explored the new-product development process, an intellectual and physical process that involves multiple steps from new-product strategy and idea generation to commercialization. Using bricolage to illustrate this process showed students the pitfalls of relying too much on ideas and not enough on the resources at hand. While students were meant primarily to explore the concept of value by physically manipulating paper, they were also encouraged to think creatively about their resources. Just as Jim Lovell and his crew on the Apollo 13 had to think creatively with their limited physical options, these marketing students had to employ similar creative thinking.
**Setting 2**

Students in a general education mythology class read a selection of creation myths from Greece, Rome, Mesopotamia, and North America. These myths tell the story of how a particular culture came into being, and at their heart, creation myths are products of bricolage: “many … creation myths … represent the world as being made from the arrangement or rearrangement of already-existing elements” (Thury & Devinney 2017, p. 27). Limited by their understanding of nature and of the physical world itself, people created stories using the elements around them (water, dirt, mud, etc.)

In this setting, students wrote a creation myth about their university. Allowed to use only physical elements found on university grounds, the students used these limited resources to describe how the University came to be. The main outcome for this exercise was for students to understand how ancient civilizations used their physical environments to make meaning of their existence.

**Results**

In the first setting, students used a variety of brainstorming activities that included internet research and discussions of past creations. Using a small number of tools at hand, students created a variety of paper objects they believed would have value such as a wallet, a CD case, a table-top football game, a chance cube and flowers. Each product could be easily produced and mass commercialized.

Students approached this exercise by using one of two strategies. The first strategy was to begin with an idea and this was followed by finding the resources to realize this idea. In this case the students were limited by the idea. In this traditional setting, according to Charles Lamb (2012), “businesses should expect four out of five new products to fail” (p. 173). The second strategy was that of a bricolearner; the strategy of people who must explore existing resources. In this strategy, students modify an existing product (in this case, paper), a strategy that leads to “many new product breakthroughs” (Lamb, Hair & McDaniel, 2012, p. 174). In fact, IBM creates research and innovation labs in all of their global markets in order to “generate new ideas based on how different countries operate” (Lamb et al., 2012, p. 174). Instead of generating ideas in a vacuum, IBM’s labs contextualize and confine themselves within a particular country and culture. This student exercise in bricolage, then, shows perfectly how successful businesses such as IBM innovate using limited resources in order to increase sales. With bricolage, students learned firsthand that the first new product strategy (idea limitation) thrives on exploitation, whereas the second strategy (resource limitation) thrives on exploration. Exploring one’s resources leads to successful product development.

Similarly, in the second setting, mythology students explored their existing resources (the physical structures on campus) and the creation myths they had just read. In their bricolage exercise, some students produced new creation myths that focused on big donors and the Chancellor as the University’s deities. Other myths focused on the students themselves as the creators of the university, establishing order out of the cosmic chaos underneath their dorm room beds. Like the Greek and Roman creation myths they imitated, the students’ myths showed what they valued: (1) understanding their place within the University’s leadership structure and (2) empowerment of themselves as creators of their own reality.

In meeting the outcome for this exercise, their creation myths also revealed relationships between physical objects students saw on campus and what these objects symbolized. A half-empty pizza box became the university’s cafeteria while a pile of unfinished homework was transformed into the library. The study of mythology (and of creation myths in particular) requires the student to understand that “Origin stories are sacramental—outward and visible signs of an inner truth about the individual or culture in question” (Leeming, 2014, p. 15). This was an important moment in student learning because their creation myths showed that students understood how early cultures could make meaning out of their physical surroundings as it related to themselves as individuals. What may seem unimportant to the casual observer becomes symbolically important to a myth maker.

As an added bonus, students also learned that while creation myths of some cultures may seem silly or grotesque (the Congolese god Mbombo vomits the world into existence) to 21st century Western students, within the context of a pre-historic culture, these stories tell us what people believed about their cosmos and their place in it. By choosing everyday objects like pizza boxes and homework, students showed us not just the creation of their world but also the objects that help them understand what they value in their world.
Finally, the new creation myths also revealed that the students had incorporated what they had observed in the creation myths they had read before coming to class. Some of the student myths included human beings made out of clay (as in several First Nations creation myths) or the University coming into existence out of a void (as in Enuma Elish from Mesopotamia). When students call on what they have previously learned while using only limited physical resources on hand to make something new, they truly have become bricolearners.

**Discussion**

As bricolearners, students discover what they can do with a certain material and think in abstract terms while they create something new. Research in these classroom environments revealed that bricolage can be used, amongst other things, as a tool for improvisation, for dialogue with one’s own material, and for social-environment construction.

Because bricolage requires students to start constructing knowledge by understanding the resources that are available rather than finding resources to construct knowledge, outcomes best served by bricolage exercises are the development of creative and critical thinking, reflective writing, collaboration, and synthesis. In the marketing class’s final project, students chose an existing product to rebrand and market using their own ideas. Such a project wouldn’t benefit from the application of bricolage because the end result isn’t a new product reimagined from other products. Similarly, in the mythology class’s final project, students wrote an essay comparing an ancient myth to something from today’s popular culture. The end result is a paper with an interesting critical synthesis of two “stories”, but the end result isn’t an entirely new story.

With an emphasis on the creation of something new from objects that are at hand, bricolage can also become a way for students to create agency for themselves. In Rebekah Willett’s (2015) article, “Everyday Game Design on a School Playground: Children as Bricoleurs” Willett found that children who acted as bricoleurs during imaginative play added elements to their play that demonstrated their desire to “[turn] it into a game [which they] created and shared with each other as part of a friendship activity” (p. 42). Such exercises help students see connections between what they have experienced and materials that help them create something new. For these connections to be made, the students themselves must be encouraged to engage in complex negotiations between materials/people at hand and knowledge. Activities that call for students to become bricolearners hand the power of that negotiation over to students.

**References**


