

What Is the Difference Between Invention and Innovation?

Courtesy of Anne Edwards and Becky Butz

According to a dictionary definition, innovation is the introduction of something new (or as if new), something that deviates from established doctrine and practice. The act of creation, of making something new, is only the first step in a long path to historical change in materials and culture. What makes something innovative is not just that it is new, but that it takes root in some way, making changes in established cultures, doctrines, and practices, leading to historical significance.

The theme of innovation is one that requires depth of thinking, It is about examining ideas, methods, and inventions, and not merely about events and individuals. Students are expected to look at the need for change, how that change came about, the methods that were used to convince the public that it was necessary, and the impact it made. It's not just the story of Eli Whitney and the invention of the cotton gin, Instead, it's an explanation of why there was a need for the cotton gin, how people were encouraged to use the invention, and the impact it had on farming practices and the labor force. For instance, what happened to the slaves when they were replaced by the cotton gin?

Innovation implies much more than merely invention. Invention can be an aspect of innovation and, in fact, is often the first step in innovation. However, the crucial difference occurs between the relatively discrete creative act of invention and the far longer process of innovation. Innovation involves the process of convincing people to change their material or intellectual habits and replace old behaviors with new ones. Thus, the investigation of innovation inherently includes an examination of historical significance.

Historical context must also be included in an effort to understand how the innovation occurred and was implemented. Within this examination the consideration of innovation from the time and place may also be explored. An idea unearthed after being long buried or used in a new way may be innovative if applied to a new situation. For instance, consider Leonardo DaVinci's invention of the helicopter. It was way before its time and thus was not an innovation during his lifetime. When times and technologies changed, and the idea of a helicopter could become a reality, it took hold and became an innovation.

Innovation also applies to the innovation of ideas: the divine right of kings or civil and human rights or scientific theories of heliocentrism or evolution or quantum theory. All of these were new when their proponents initiated movements in their favor.

Good student research will require examining prior precedents as part of the historical context. The innovation itself, the change of thought and/or actions, must be clearly delineated in the student entries. For example, if students want to trace nonviolent protest as an innovation, they will discover that it has a long and involved history. The origins are not in the 1960s, but with Christianity (turn the other cheek and the martyrs), Thoreau's Civil Disobedience, and Gandhi. American Civil Rights should only be the tail end of such a discussion. Students would be much better off tracing the evolution of the sit-in. Where does it originate? How does it evolve?