Transformative Learning and Lean Six Sigma Programs: Adopting an All-Collar Approach

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ABSTRACT
In the competitive world of recruiting, the better an applicant can apply what has already been learned to a new environment, the greater the career opportunity. This study captured the transformative learning experience of students, guided by their instructors and industry partners, related to learning and executing Lean Six Sigma principles in a variety of environments. Lean Six Sigma principles which seek to reduce inefficiencies and thus improve the customer experience have long since been associated with manufacturing. Expanding the application of Lean Six Sigma from blue-collar settings to include white-collar and green-collar work provides students additional problem-solving approaches to process challenges in all-collar environments. Additionally, the experience aided students in viewing customers from both internal and external lenses, linked customer loyalty to organization success, and demonstrated the value such skills were to both personal career growth. Suggestions for faculty and recommendations for future studies are included.

KEYWORDS
5-Why, All-Collars, Andragogy, Blue-Collar, Green-Collar, Kaizen, Lean Six Sigma, Transformative Learning, Voice of Customer, White-Collar

INTRODUCTION
In its 2019 report, SHRM reported 37% of 1028 respondents cited the greatest skills gap was a cluster of soft skills described as problem solving, critical thinking, and innovation and creativity. Internet searches produced countless listings for blue collar workers with key words that included Lean Six Sigma and Kaizen both of which are collection of tools created for improving performance. A job applicant perusing job listings would be hard-pressed to believe efficiency problems existed outside manufacturing. However, one could spend a single afternoon in the waiting room of a medical provider to realize inefficiencies aren’t limited to blue-collar environments. This realization that inefficiencies abounded led the instructional staff in a workforce development program to recast its association of Lean Six Sigma instruction to include not only traditional blue-collar industries, but white-collar and green-collar settings as well.

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Learning for the workplace was most effective when learners had prior relevant knowledge and the objectives were transferrable to other environments. Learners actively sought knowledge in the traditional pedagogical environments, flourished in andragogically-structured learning activities, and gravitated towards incidental and recreational learning via public pedagogical opportunities. Combined, all three of these approaches afforded the learner healthy critical thinking skills which were invaluable in the workplace.

In the competitive world of recruiting, the better an applicant can apply what has already been learned to a new environment, the greater the career opportunity. This study captured the transformative learning experience of students, guided by their instructors and industry partners, related to learning and executing Lean Six Sigma principles in a variety of environments. Lean principles which seek to reduce inefficiencies and thus improve the customer experience, have long since been associated with manufacturing. However, expanding the application of Lean Six Sigma from blue-collar settings to include white-collar and green-collar work provided students additional problem-solving approaches to process challenges in all-collar environments. Additionally, the experience aided students in viewing customers from both internal and external lenses, linked customer loyalty to organization success, and demonstrated the value such skills were to personal and career growth.

**LITERATURE REVIEW**

**Transformative Learning**

Mezirow (1996) declared learning as “the process of using a prior interpretation to construe a new or revised interpretation of the meaning of one’s experience in order to guide future action” (p. 162). Such understanding was critical to the planning of learning for adults for whom rote memorization and standard pedagogical approaches were ineffective. Andragogical approaches, however, relied on the learner’s existing knowledge to scaffold and create schemas of the newly acquired information and thus were reliant on prior knowledge for success (Knowles, 1984). Mezirow (1996) suggested learning in this manner supports the construction of purpose, feelings, and values unique to the individual rather than the incorporation of purpose, feelings, and values assimilated from elsewhere. Boud and Walker (1991) reported “a diversity of approaches is merely a reflection of the many stances which can be taken to learning from experience. It is a rich field with much to be generated” (p. 37).

According to Taylor and Cranton (2012), the learning process of building new knowledge and rearranging existing knowledge formed the transformative learning theory. The process of transformative learning was contingent upon the learner’s prior experience. These frames of references provided structure and gave way to the assumptions and expectations the individual held. Of the frame of reference, Mezirow (2000) stated it “selectively shapes and delimits perception, cognition, feelings and disposition, by predisposing our intentions, expectations, and purposes. It provides the context for making meaning within which we choose what and how a sensory experience is to be construed and/or appropriated” (p. 16). Such frames of reference influenced the individual’s beliefs, thinking, and actions.

It was the shift in paradigm that occurred as a result of the experience that caused the transformation. The manner in which transformative learning occurs varies with experiences ranging from cognitive (rational) to relational (extrarational) to social systems such as change or justice. Mezirow (1996) added that this transformative learning essentially was “learning that transforms problematic frames of reference to make them more inclusive, discriminating, reflective, open, and emotionally able to change” (p. 22).

Meaning perspective involved either epochal or incremental transformation. The shift which changed an individual’s frame of reference may occur over time, incrementally, or it may occur suddenly, epochal. It was not uncommon for the experience to create chaos with the learner seeking to process through critical reflection that which occurred and to engage in rational discourse with the instructor.
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