Triple Loop Teaching Methodology: A Doctoral Learner’s Experience

By

Eugene Frazier, DM/IST, Kirtland Community College
3702 Arbutus Lane
Grayling, MI 49738
gene.frazier@gmail.com

Earned Doctor of Management in Organizational Leadership, Information Systems and Technology (DM/IST), Master of Science Systems Management (MSSM), and Master of Science Software Engineering (MSSE). Instructor, Computer Information Systems, Kirtland Community College, Roscommon, Michigan. Senior Lecturer, California State University, San Marcos, CA. Retired U.S. Marine Corps Officer with experience in command and control, communications, computers, and counter-measures (C^{4}M). Worldwide service on land, at sea, and in joint assignments. Program Manager and Principal Investigator, ORINCON Corporation, and Director of Operations, International Data Link Corporation with responsibility for information systems technology, software development, and artificial intelligence programs.

Kathleen M. Guindon, DM, Roche Group
1194 Seneca Creek Road
West Seneca, NY 14224
kguindon@gene.com

Earned Doctor of Management in Organizational Leadership (DM) and Master of Science Nursing (MSN). Senior Medical Science Liaison with the Roche Group serving as the interface for principal investigators of innovative medical research. Research driven career path emphasizing innovation and smart risk taking to develop novel therapies to approach unmet medical needs. Past experience in the fields of oncology, hematology, and bone marrow transplant within a NCI designated Comprehensive Cancer setting.

Johnny L. Morris, PhD, University of Phoenix
209 South Riverwalk Drive
Palm Coast, FL 32137
Jmorrisphd2000@gmail.com

Earned Doctor of Philosophy (Ph.D.) and Master of Business Administration (MBA). Associate Professor, develop and teach curriculum and courses for online environment. Course delivery expertise includes accounting, capstone, entrepreneurship, finance, leadership, management, organizational behavior, strategic management, and research. Teach graduate and doctoral courses in classroom and online environments at accredited universities. Senior executive leader in for-profit public companies. Experienced director of operations, director of strategic planning, and director of community reinvestment activities for federally chartered bank organizations. Research interests include integration of values-based leadership skills, values, and concepts in the global virtual environment.
Abstract

Doctoral level learning and praxis requires an understanding and ability to review, generate, and apply scholarship in a triple loop teaching methodology fashion. Creation of new knowledge, theory, and models for practice evolve from the ability to think critically. Application of triple loop teaching methodology learning is an integral component of doctoral level and advanced studies. Triple loop teaching methodology includes feedback, reflection, and paradigm adjustment. Single loop learning addresses an issue with a yes or no response. Double loop learning enhances single loop learning with the addition of assumption, and triple loop learning builds upon double loop learning, and could be an element explaining the transformation of empirical knowledge to wisdom and the creation of new realities. The triple loop teaching methodology model serves as a guide to assist the doctoral student in the transformation to a triple loop methodology of thinking and practice. This article describes a teaching methodology model and includes a model for triple loop learning methodology. Understanding and application of triple loop teaching methodology thinking will allow students to apply the concepts toward their dissertation research project and function more fully as doctoral prepared leaders in their future roles and endeavors.
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Triple Loop Teaching Methodology

This article depicts understanding and praxis of a single, double, and triple loop teaching methodology learning experience for doctoral students. Triple loop teaching methodology learning is the term this article uses to describe learning with paradigm adjustment as asserted by Peschl (2007). The extension of the concept in this article stresses triple loop teaching methodology learning with embedded single, double, and triple loop teaching methodology scenarios. Figure 1 depicts the triple loop teaching methodology learning model.

![Triple Loop Teaching Methodology Diagram]

Figure 1. Triple loop teaching methodology levels of learning describing the process of doing things correctly, doing the correct task, and reflecting upon what is the correct task. Copyright 2013 by E. Frazier.

As shown in the figure above, the triple loop teaching methodology learning imposes feedback, reflection, and paradigm adjustment. Single loop learning addresses an issue with a yes or no response. Double loop learning enhances single loop learning with the addition of assumption, and triple loop teaching methodology learning builds upon double loop learning and could be an element explaining the transformation of empirical knowledge to wisdom, model development, and the creation of new realities (Cunliffe, 2004).

This article addresses single, double and triple loop learning methodologies. This article initially provides an overview of triple loop learning methodology, followed by an example and model of the triple loop learning methodology process. The article concludes with a description of a triple loop teaching methodology learning opportunity experienced by the authors during doctoral study.

Triple loop teaching methodology learning is a positive process integrating scholarship and practice, with the capability for viewing processes through an assortment of lenses. The glue that binds the past to the present, allowing the evolution of past theory into the theoretic
derivative model of today, is information literacy. Information literacy spans several dimensions and infuses all areas of the model. Information literacy is a facilitator for all concepts including the synthesis of the adaptive leadership model (Lloyd, 2006).

**Triple Loop Teaching Methodology for Doctoral Learners**

As an example of applying triple loop teaching methodology learning to doctoral praxis, doctoral students might take a journey through single, double, and triple loop teaching methodology during course work, or while preparing their dissertation research study. This exposure to triple loop teaching methodology might be a life-altering event for students. Prospective students might consider it an honor to have the opportunity to attend a class that constituted their first exposure to the triple loop process. Application of triple loop teaching methodology incorporates discussion regarding how the assignments in the syllabus and during class each day become more than mere assignments or tasks. Review of coursework, past and present, might facilitate an understanding of the effect of technology on education, organizational functioning, and lifelong learning. Students obtain triple loop methodology clarity and realization that innovation culminating in risk taking and change strategies will facilitate transformation affecting technology, globalization, and the economy (Schein, 2010).

In a practical example of triple loop methodology, the doctoral student learns that he/she is the initiator. The student considers and schedules appropriate courses. The evaluation and reflection process ensues as new courses begin. As learning, knowledge, and repetition increase, uneasiness with the status quo may intensify as well. This uneasiness is among the first signs that a paradigm shift may be appropriate because there are too many anomalies in the environment that appear to be operating in an aberrant fashion (Kuhn, 1996).

In addition, the doctoral learner is assessing the course while taking the course. The student evaluation of the course is a feed-forward influence on the student’s participation in a follow-on course. The student adopts double loop decision-making when the student completes coursework within a comprehensive academic discipline. Ultimately, the student moves from his or her present situatedness to a new state. The movement to a new state is similar to a paradigm shift (Kuhn, 1996).

The doctoral student assimilates, evaluates, and reflects upon completed courses. The repetition continues from course to course. Repetition moves the reflective gestures into the realm of reflexive gestures. The practitioner portion of the model uses reflection and creates the opportunity for long-term triple loop teaching methodology learning.

Figure 2 is a personal model for doctoral learning and scholarly development adapted from Tompkins and Paquette-Frenette (2010) learning portfolio model. The personal model for doctoral learning can lead to triple loop teaching methodology learning and paradigm creation. The model in Figure 2 flows from the apex of the triangle that denotes personal situatedness. The apex represents the desire to grow, learn, and practice scholarship. Initially, peer feedback might influence decisions to pursue graduate education. With the start of matriculation, instructors continually provide feedback for learning and growth. With the commencement of dissertation planning and writing, the mentor and committee members provide critical feedback to help with the dissertation effort.
Scholarly learners accept feedback and suggestions and redirect them into feed-forward actions to expedite the project at hand (e.g. course objectives, dissertation). Self-evaluation and reflection occur continuously as reflection leads to learning, growth, and reflexivity. Self-evaluation will affect situatedness, and can create a new paradigm. A heightened level of critical thinking is necessary to undertake future projects and challenges, culminating in a dissertation project using a triple loop teaching methodology learning paradigm.

**The Transition from Single, Double, to Triple Loop Methodology**

Single loop learning is an input causing monitored output to provide feedback. The measured feedback provides information to adjust the input to ensure the desired result. Figure 3 depicts the single loop model by showing the input, its result, the output, monitoring, and feedback that allows evaluation. The movement from single loop to double loop learning using a thermostat for a heating system, as an example, could involve reflection about the type, efficiency, concomitant cost of heating fuel, and the adequacy of insulation.
Double loop learning adds a feedback loop around single loop learning. Figure 4 below displays double loop learning graphically. The addition of the feedback loop provides the opportunity to convert data to information about why the behavior exists. In the example of a thermostat, as used in Argyris (1991, May/Jun), the thermostat temperature is set at 68° in the single loop example. In establishing a double loop reflection, the selection of 68° degrees is problematic. Double loop reflection questions all of the assumptions made with single loop learning. Single loop learning focuses on actions whereas double loop learning looks at the root cause of the actions.

Figure 4. Double Loop Learning. Copyright 2013 by E. Frazier.

The transition from double loop learning to triple loop teaching methodology learning creates an additional dimension. Triple loop learning questions how the learning has taken place and why, by applying the added feed forward dimension. The triple loop feedback might lead to making the home more energy efficient and capable of sustaining temperature for a longer period or it might lead to moving to a warmer climate to negate the need for household heating expenses altogether. Triple loop teaching methodology learning is about the process that has taken place. It is about reflection on feedback to determine why the learning is necessary and if a fundamental shift in attitude is appropriate. A paradigmatic shift often accompanies, or follows, the shift in attitudes. Triple loop teaching methodology learning reexamines earlier assumptions. Triple loop teaching methodology learning determines if there is a need to create a new reality.

The review of past assumptions might be synonymous with the addition of self-reflection adding synergy to the learning to create wisdom (Cunliffe, 2005; Peschl, 2008). Some describe triple loop teaching methodology learning as double loop learning with a feedback (feedforward) loop around it. The new information provides precious data about the need to learn about the learning. It provides clues as to the approach of an impending paradigm shift (Kuhn, 1996).

Triple loop teaching methodology learning also implies the introduction of the individual into the learning process in a new manner. Computer science, for example, is concerned with processing data and transforming the data into information. The information becomes knowledge and assists in the resolution of problems. With the critical reflection of triple loop teaching methodology learning, existentialism becomes an incubator capable of transforming knowledge into wisdom. Later discussion provides additional thoughts on triple loop teaching methodology learning.
Triple Loop Teaching Methodology and Model

The triple loop teaching methodology model stresses the need for leadership-driven learning, reflection, and reflexive praxis. The triple loop teaching methodology model enables doctoral students to address the turmoil of current society with its economic and managerial issues amidst ever-increasing economic (Shachmurove, 2010) and constant technological change as previously discussed in Frazier (2013). To establish a doctoral student baseline regarding the model, doctoral students can prepare and present a pre-course assignment, an individualized draft leadership statement. The doctoral students will revise their initial leadership statements as they begin processing the triple loop teaching methodology model. The figure below represents the triple loop teaching methodology process.

![Image of the triple loop teaching methodology process]

*Figure 5. Visual depiction representing the triple loop teaching methodology process. Copyright 2011 by E. Frazier.*

The triple loop teaching methodology class is similar to an active learning classroom environment, which might be appropriate as an implication to facilitate triple loop teaching methodology learning. Doctoral learners are informed that there is no professor, teacher, or instructor for the course. They learn that the education comes from the class members rather than the normal pedagogical approach used previously for other courses and for the majority of the class members’ academic lives. The students experience discomfort and anxiety as they confront the triple loop paradigm. Such a significant shift or increase in level of discomfort can cause pain (Kofman, 2006). Class coursework builds upon student discomfort with the assignment of daily prompts to motivate doctoral level responses and model building. With each daily prompt, the doctoral students began to assign themselves to teams; and with each successive daily prompt, the teams change membership. The teams grow in size until, by the end of the fourth or fifth day, there exists a single team composed of the entire class. Changes in
team membership create consistent change in team dynamics and the forming, storming, norming, and performing (Tuckman, 1965) customary for group development.

Challenges the teams may experience include network outages, failed equipment, and an uncertain environment, as experienced by the authors. Organizations require stability and a supportive culture (Schein, 1996). At times, the class’ stable foundation disappears and events may border on the chaotic. This creates apprehension and excitement; and such circumstances indicate a loss of vital infrastructure support. The authors believe the above description of a triple loop teaching methodology course provides background information for triple loop teaching methodology learning.

A critically reflexive approach to the scholar, practitioner model (Lambrechts et al., 2011) results from its continued use. A reflexive action is a gesture as when a person folds his or her arms automatically (Peschl, 2007). A reflective action is a gesture of a person folding his or her arms in reverse (Peschl). With a comparison of the two different ways that a person uses to fold his or her arms, Peschl defined reflexive versus reflective actions. Folding arms in reverse is not normal; care and reflection accompanies the reflective movement.

The reflective action of folding the arms converts to a reflexive action when repeated enough times (Peschl, 2007). Over time, the once reflective action transforms to a comfortable, natural movement. With this transformation, using the triple loop teaching methodology a critically reflexive approach unfolds.

The reflective actions transform themselves into reflexive actions. With the addition of a feed-forward loop, reflection, and evaluation, triple loop teaching methodology surfaces. Reflection on the model through application of responses to daily prompts and focusing on triple loop teaching methodology learning helped augment triple loop teaching methodology based critical thinking processes for the doctoral student authors of this article. The model and triple loop teaching methodology learning will be beneficial as doctoral students prepare dissertations and complete remaining coursework. The dissertation itself is a triple loop teaching methodology learning event. Students engage in single, double, and triple loop teaching methodology learning.

Triple loop teaching methodology learning creates a feedback/feed-forward loop around the double loop learning model and emphasizes that the triple loop teaching methodology might contain many other single, double, and triple loop teaching methodologies. A triple loop teaching methodology learning system is a system within a hierarchy of systems as described by von Bertalanffy (1972) possibly containing many other learning and feedback loops. It involves awareness of the possibility of multiple levels of single, double, and triple loop teaching methodologies embedded in all of the other loops. The feedback loop around the triple loop teaching methodology delineates the class, or cohort, as a case study that upon reflection might provide a university insight in a continuous curriculum improvement program.

Reexamination is an example of continuous improvement. The reexamination is the application of triple loop teaching methodology learning to the model that is designed as a triple loop teaching methodology, and is one of the methods used for continuous improvement of curricula.

**Triple Loop Teaching Methodology Assignment**

The authors participated in a triple loop teaching methodology course as part of their leadership focused doctoral program. The final assignment included an overview and presentation of the class developed triple loop learning model from a theoretical perspective and
from a practitioner’s perspective while exercising the leadership component of the model. The class addressed how leadership integrates and drives scholarship and practice. The assignment required engaging and energizing the team to create new content and processes. The challenge was in the development of new models, new ideas, and new synthesis. The focus also included the formation of knowledge about learning how to learn. Other elements of the course concerned collaboration, collective intelligence, and collective competence.

The team considered the use of a critically reflexive approach to transform into a lifelong scholar, practitioner, and leader. Leaders will need to reflect continually on actions, values, assumptions, and situatedness. All of the above linked to ongoing reflection and execution of single, double, and triple loop teaching methodology learning.

The team presentation stressed the similarities of the lenses, and each example of triple loop teaching methodology learning complemented the other two loops in the model. The visual model and presentation demonstrated the collective expertise and competence of the team. Most importantly, the team made excellent progress in obtaining greater understanding of triple loop teaching methodology learning. The team developed a critically reflective triple loop teaching methodology model.

Figure 6. This graphical depiction represents a model of the development of a dissertation proposal. Copyright 2011 by E. Frazier.

Figure 6 begins with the class mired in its own situatedness necessitating a search for data to elucidate a problem. The class analyzed and transformed the data into information. The information became the subject of synthesis and evaluation based on the conduct of a doctoral dissertation. The synthesis and evaluation led to transformation of information into knowledge. In each of the doctoral student’s own existentialist states, the knowledge developed into wisdom. Eventually, critical thinking and applied wisdom can precipitate a paradigm shift.
A critically reflective triple loop teaching methodology concept was the tool for new model development. The presentation and associated team generated model represented shared inquiry and incorporation of triple loop learning. The effort resulted in a new creation that blended the collective activities of the doctoral class member’s, previous courses, and the continual, life-long learning commitments for the future.

**Conclusion**

This article provided an overview of how doctoral students acting as a team generated doctoral level responses to daily classroom prompts. Within this context, doctoral students were introduced to the triple loop teaching methodology model as a resource to realize the mission of doctoral scholarship as practiced among doctoral graduates. Facilitators reinforced critical thinking initiatives, and doctoral student model creation and paradigm development were considered and applied as part of the learning experience. This required understanding and practical application of the triple loop teaching methodology learning model (Peschl, 2007). Figure 5 depicted the culmination of course requirements as a model and the ability to progress as doctoral prepared thinkers. Understanding and application of triple loop teaching methodology may escalate doctoral students to a higher level of critical thinking in their future role as practitioner leaders.

**References**


