

Classroom Decision-Making Exercises: A teaching method to develop future leaders

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Within the realms of teaching military science courses, understanding unconventional maneuver warfare is due to the allowance for creativity, innovation, and the application of basic principles. The rigidity of rules that bind the tactical leader causes unnecessary loss of life, just as teaching in this manner would cause similar cognitive thinking towards making decisions. This literature review will discuss a teaching method that develops student learning through critical thinking and actually understanding the outcome of their decisions. As an example for discussion, this review will analyze the effectiveness of learning by examining the classroom environment, stimulating activities and critical thinking through decision-making exercises. Specifically, military science students have validated this idea through the application of tactical decision-making exercises (TDEs). Inherently, effective learning is sought by the students' motivation to understand lesson objectives because of the potential freedom to "fail" tactically, while understanding why their decision will or will not contribute to the overall purpose. Although this method is proven to be effective for teaching decision-making, it is dependent on the teacher's perceptions of commitment (behavior, attitude, experience, knowledge) as well as being cognitive of group dynamics.

Literature Review

The days of the apolitical, duty-driven martinet are certainly over, just as the conventional war-fighting methods are for combat leaders today. As the paradigm of international military-civil relations continues to shift, so must our understanding of tactical decision-making change to fit the new circumstances. More than ever, Soldiers must understand the complex nature of the conflicts that surround them and the decisions they will make on the battlefield - autonomously. This discussion on decision-making is colored by the students' complete understanding of a specific situation that is augmented by their basic foundation of tactics. Through this concept, the application is not in the memorization of principles, but found by applying these principles through critical thinking and innovation. We simply do not have time for doctrinal semantics, structured academia, or pertinacious outcomes to teach junior leaders how to make effective decisions.

There are a multitude of processes and teaching methods to improve decision-making and the quality of decisions. Decision-making is more natural to certain personalities; therefore students should learn to focus more on improving the quality of their decisions. Students that are less natural decision-makers are often able to make quality assessments, but then need to be more decisive in acting upon the assessments made. As for teaching such an agile skill set, both teachers and students need to consider not only the information processed, but also the human aspects that impact decision-making. Day, Sammons, and Gu (2008) conducted a 4-year study on the integration of different teaching methods to decision-making exercises to determine learning effectiveness. The project research confirmed that learning effectiveness is directly related to qualitative over quantitative methodologies based on the data collected (*Table 1: Data Collection Methods*).

Shaping the classroom environment

For discussion, it is important to define tactical decision-making exercises (TDEs) and what outcomes students will achieve by working through them. Fundamentally, TDEs are the vehicles

used to measure how well students can process information, take action, and understand why they chose that action. James Calderhead (1981), research analyst for psychological teaching methods, meticulously explains further (through over forty-five publications) that teachers will present problems, identify “relevant cues from their environmental situation, evaluate the pros and cons of different” decisions, and finally, allow students to conceptualize their own thoughts and take appropriate action. Decision-making exercises create an environment that requires the teacher to implement leading questions as discussion unfolds; control measures to drive a point. Teachers must be able to distinguish between the student’s level of knowledge and understanding in order to clearly determine if actual learning is taking place. Decision-making is a skill that weighs heavily on whatever information is given and the individual himself. Therefore, everyone will make different decisions based on their human aspects and personal experiences. Essentially, if leaders solely used solution-based problem solving, they would initially react to combat situations exactly as a deer-in-the-headlight would react. As a result, time is lost in the process of adapting to that specific environment before being able to make a clear decision. Solution-based problem solving is better suited for mathematics or physics - black and white. Instead, TDEs are designed to explore the “gray area” and are intended to stimulate discussion of several possible solutions within the parameters of given information. Then students are able to make decisions based on critical thinking and understanding the application of principles; not approved solutions.

Ranson, Martin, Nixon, and McKowen (1996) presented a study on human behavioral aspects and effectiveness of institutional structured learning. By acknowledging that students are human beings, rather than just the “mental mechanisms of Descartes’ *cogito ergo sum*”, it is imperative that students demonstrate that they can apply basic principles of the course subject before comprehending decision-making exercises. Often overlooked, and sometimes neglected, are the teacher’s spatial aspects and their *own* cognitive recognition that students are truly understanding the application of course objectives or not. Undoubtedly, teachers want to maximize class time over student learning. Using TDEs to fit that bill can be intense for a few focused students while creating a learning gap for others; based on the teacher-student ratio. Teachers must have a keen sense of balance when using TDEs in the classroom while using innovated techniques to get *all* students interested and involved.

The expectation for students’ while working through TDEs is to focus on developing autonomy within cooperative relationships such as “team work”, rather than possessive individual accomplishments. Also, it is expected for students to develop confidence to reach out beyond local and familiar bases of study (i.e., thinking outside the box). Approaches to teaching cognitive decision-making skills are developed through active learning, rather than mere memorizing, whereas students make decisions and are required to justify *why* their decision was better than others. By defending their decision and negotiating other options, they are essentially taking responsibility for their own learning and challenging their overall knowledge. The difficult task is initially teaching students the basic principles of tactics in order for them to establish their own personal learning values. The idea is to motivate students to become intellectual participants in class discussion, which can be a difficult task for first year military science students. Getting students interested, involved and invested in the context increases the value of course objectives learned and retained. Eventually the students will start understanding why they chose to make specific decisions and comprehend the level of effectiveness for the

overall mission. It is important for future leaders to know that delivering a rapid decision, regardless of the outcome, is far better than being hesitant or not making a decision at all. How do we get junior leaders to make decisions and feel confident about them? Through the application of TDEs, students will develop a sense of urgency and eventually competence in the decisions they make.

Effective learning through decision-making exercises

Making decisions are essentially what leaders do and without stimulating discussion (usually provided by students) and continuously re-focusing the students toward the lesson objective (driven by teacher-lead questions), class discussion becomes futile making a decision ambiguous. Based on a study to measure teaching effectiveness by Day, Sammons, and Gu (2008), the data revealed that effective teaching was directly correlated to the “teachers ability to related to students attitudes, achievements, and attainments.” Interestingly, the study also revealed that the students were affected (distracted) by structured school policies, peer influences, and personal factors (e.g., school leadership and culture). Thompson, Licklider, and Jungst (2003) implement this study even deeper based on a cognitive holistic framework focusing on teacher-student interaction, personally relating to subject topics, and teaching through active learning in the classroom. It is natural for students, or anyone, to instinctively correlate [class] discussion with personal experiences in order to enhance their understanding. As an example, a West Point cadet can easily apply the basic tactical principles by conducting a raid on Firstie Club after conceptualizing a well-thought out plan and then fine-tuning that plan during the actual execution phase. The decision-making processes include the cadet’s ability to conceptualize the familiar environment and apply tactical principles to the TDE scenario with ease. Regardless of faltering actions during the execution of the plan, the idea is to (a) develop critical decision-making skills, (b) remain flexible within their application of knowledge, and (c) adapt to change. The cadets developed, what I describe as, “muscle memory” of some action to later use in comparison to future scenarios.

Also, allowing students to speak openly about their personal or social events can be an extremely useful resource for introducing new concepts. A teacher with interpersonal skills can gain personal insight on the students’ interests and then implement that knowledge into class lessons. Most students want to talk about themselves and share their experiences just as it is human nature to establish relationships and connect with others. Tomcho and Foels (2008) completed an extensive assessment of learning outcomes that identified the primary factors that affected the students’ learning was knowledge, behavior, and attitude implemented from the teachers. This direct correlation demonstrated the students’ ability to invest in their own active learning while applying their personal input to class discussion. In relation to this study, the troop-leading procedures (TLPs) are basically sequential decision-making steps that guide military leaders to take appropriate action when logically necessary. Students were not asked to memorize the TLPs, rather brainstorm the preparations and actions needed for a trip from West Point to New York City at a given time and date. The students had no clue what a warning order was, but knew how to make adequate preparations before leaving their West Point barracks. In addition, specific order of information came natural to their conceptual thoughts (e.g., train schedules, authorizations, notifications, supplies, funds, etc.). Within 15 minutes the students were able to understand and apply the TLPs as they developed an example based on their own personal

experiences and interests. Eventually through class discussion, the cadet planning factors for the trip to NYC were translated into the TLP tactical language. Day, Sammons, and Gu (2008) mention this teaching technique as “learning through dialogue”, or another method of active learning. Nonetheless, very effective. Whether or not they could recite the TLPs the next day was not the point of the exercise.

Group dynamics, or peer influences, will naturally disrupt the decision-making process. From a sociological aspect, Atkinson, Hunt, and Buck (2009) emphasizes that teachers must set the tone for the class environment such as, there must be a clear distinction of time allocated to course objectives and student interaction. Teachers must continue to assess and determine if students’ are actually learning or are they simply taking advantage of the “social experience shared among individuals.” When discussing possible solutions, peer influences will undoubtedly alter the decision-making process, whereas the students search for “low threat” decisions. That is, students prefer to agree with their peers, taking less risk rather than conceptualizing their own thoughts. Yazedjian and Kolkhorst (2007) consequently explain the effectiveness of small-group activities that promote understanding and skills relevant to the course content, but teachers cannot assume that students understand the value of those activities. Typical situations are often associated with particular peer responses that sound more like a “blanket response” holding no meaning or value to a discussion. “Yeah, what he said!” Yes, it is human nature to search for companionship and camaraderie in our lives. Equivalently, students do not like to feel alone in the decisions they make whether or not the decision was successful or flawed. The point is that teachers have the responsibility to regulate peer influences, correct faulted decisions and avoid negative feedback from those students that were at least willing to make a decision in the first place.

Conclusion

Students naturally develop a sense of understanding through self-awareness, confidence, and competence as they work through the application of decision-making exercises. In-class application and discussion of justifiable decisions develops students through failed experiences, as well as successful. Teachers must be able to distinguish if the student can adequately apply tactical principles, sort through pertinent information, and utilize their resources in order to make sensible decisions. In addition, students will naturally apply the human aspects (knowledge, behavior, skill, attitudes, etc.) while conceptualizing all possible decisions and understand the overall effectiveness. More importantly, teachers have the responsibility to implement leading questions to drive stimulated discussions in order to influence creativity and innovated critical thinking for the students. Making decisions is a skill that is not congruent to institutional structure. Rather, it is a “natural” paradigm that has multiple complicated aspects that need to be considered when assessing students’ learning.

References

Atkinson, Maxine P., Alison R. Buck and Andrea N. Hunt. "Sociology of the College Classroom: Applying Sociological Theory in the Classroom Level." Teaching Sociology

37 (2009): 233-244.

Calderhead, James. "A Psychological Approach to Research on Teachers' Classroom Decision-Making." British Educational Research Journal 7 (1981): 51-57.

Day, Christopher, Pam Sammons and Qing Gu. "Combining Qualitative and Quantitative Methodologies in Research on Teachers' Lives, Work, and Effectiveness: From Integration to Synergy." Educational Researcher 37 (2008): 330-342.

Ranson, Stewart, Jane Martin, Jon Nixon and Penny McKowen. "Towards a Theory of Learning." British Journal of Educational Studies 44 (1996): 9-26.

Thompson, J., B. Licklider and S. Jungst. "Learner-Centered Teaching: Postsecondary Strategies That Promote "Thinking Like a Professional"." Theory Into Practice 42 (2003): 133-141.

Tomcho, Thomas J. and Rob Foels. "Assessing Effective Teaching of Psychology: A Meta-Analytic Intergration of Learning Outcomes." Teaching of Psychology 35 (2008): 286-296.

Yazedjian, Ani and Brittany Boyle Kolkhorst. "Implementing Small-Group Activities in Large Lecture Classes." College Teaching 55.No. 4 (2007): 164-169.

Annotated Bibliography

Cornelius, Lindsay L. and Leslie Rupert Herrenkohl. "Power in the Classroom: How the Environment Shapes Students' Relationships with Each Other and with Concepts." Cognition and Instruction 22 (2004): 467-498. This article underlines the importance of why teachers increase student interact in the classroom and how the effects will change teaching methodologies. The effects on student learning through less reliance on authoritative and discipline measures increase the students' ability to gain ownership of their ideas (power of knowledge), partisanship (interaction with concepts) and persuasive discourse (influencing others). Through a sixth-grade classroom research study, the "aspect of power" through classroom interaction speaks on all academe (471).

Doveston, Mary and Marian Keenaghan. "Improving classroom dynamics to support students' learning and social inclusion: a collaborative approach." Support for Learning 21 (2006): 05-11. This article describes teachers as "action researchers" that are capable of developing a learning environment that are both creative and adaptive. Through the process of improving teacher-student interpersonal relationships, students develop a sense of trust and respect for their teacher and in return, increase self-confidence and effective learning.

Hunter, Elizabeth. "Changing the Dynamics of the Classroom." Theory Into Practice 16 (2001): 290-295. The critical point to this article is the effective use of small group instruction. Instructors enable the students to conduct critical analysis on subjects by introducing general concepts and providing examples through real experiences. The student learns to

invest in their learning by applying the new concept to related situations and encourages collaborative behavior that stimulates critical understanding.

- Mejia, Andres and Adriana Molina. "Are we promoting critical autonomous thinking? A discussion on conversational genres and whether they can help us answer the question." Cambridge Journal of Education 37 (2007): 409-426. Based on the context through conversational dialogue, this article examines the distinction between communicative action (understanding) and strategic action (use of dialogue) teaching techniques that develop autonomous thinking. The discussions are subject to classroom situations and consequently can be misleading based on knowledge indoctrination by the teacher (421).
- Sussman, Tamara, Marion Bogo and Judith Globerman. "Field Instructor Perceptions in Group Supervision: Establishing Trust Through Managing Group Dynamics." The Clinical Supervisor 26 (2007): 61-80. The Research and Ethics Board at the University of Toronto conducted an analysis to understand the impact of group dynamics through social and psychological discussions. The correlation between the instructors knowledge of the subject matter and student participation weighed heavily on the feedback, if any, given from all participants. Students that are classified as "risk takers" were able to overcome social anxiety, contribute intellectual thought, and increase their self-confidence regardless of the validity of their argument.