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An Army Experiential Learning Model Job Aid

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14. ABSTRACT *(Maximum 200 words)*: The purpose of this work was to create a tool to help instructors at the Maneuver Captains Career Course (MCCC) bridge the operator-to-educator transition (Swaim, 2017) by supporting their understanding of the Army Experiential Learning Model (ELM; *see* The Army University, *Adult Teaching and Learning User's Guide*). The ELM Job Aid was developed in a collaboration between the U.S. Army Research Institute (ARI) and the MCCC. For each element of the ELM, the job aid includes an overview of the purpose, a summary of typical methods used by MCCC instructors, alternative approaches, and "Tips and Tricks" based on the practices of seasoned MCCC instructors. Notably, the tool is intended to be used in conjunction with experiences gained in the Common Faculty Development-Instructor Course (CFD-IC) and in a program of instruction (POI)-specific certification course that serves to help apprentice instructors develop pedagogical content knowledge. The ELM Job Aid presented here addresses a way to further support content-specific teaching when faced with the time and resource constraints that are characteristic of military training and education settings.

15. SUBJECT TERMS

Army Experiential Learning Model, Instructors-Development, Instructors, Certification, Teaching job aids, Maneuver Captains Career Course

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AN ARMY EXPERIENTIAL LEARNING MODEL JOB AID

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Background

Military institutions are faced with the daunting challenge of transforming "highly trained technical experts from the realm of combat operations into the very different arena of academic education" (Swaim, 2017, pp. 2241). This operator-to-educator transition (Swaim, 2017) can be challenging in any domain. Indeed, most teachers study a topic for years before they attempt to teach others. Teachers of math typically hold degrees in mathematics, teachers of music study their instruments for decades, and coaches often first play at more advanced levels. In other words, proficient teachers are ideally, if not always, experts in the content they teach. However, this expertise is not enough, for instructors also need to understand how to effectively teach that content to students. In the case of teachers in public schools, they are typically required to earn advanced degrees in education to help them understand how to teach in specific domains. In contrast, future military instructors have extensive content knowledge based on their prior job experiences and professional military education (PME), but most instructors do not have degrees or extensive coursework in education. Therefore, this tension between domain expertise and teaching expertise is further exacerbated in the military.

The difference between a content expert and an instructor is their pedagogical content knowledge (PCK), which is their ability to transform that expertise and effectively teach it to students (Magnusson, Krajcik, & Borko, 1999; Park & Oliver, 2008; Shulman, 1986). PCK is the unique knowledge base of teachers (Shulman, 1986). Magnusson et al. (1999) describe it as a "teacher's understanding of how to help students understand specific subject matter. It includes knowledge of how particular subject matter topics, problems, and issues can be organized, represented, and adapted to the diverse interests and abilities of learners, and then presented for instruction" (pp. 1-2). PCK is a transformation of subject matter knowledge and pedagogical knowledge to teach a specific domain. Thus, future military instructors must develop the general pedagogical knowledge and skills, as well as the more specific PCK to effectively teach students. They must learn how to transform their expertise into a form that more junior Soldiers can understand. Therefore, military institutions must develop future instructors' PCK in order to bridge the operator-to-educator transition. Rather than taking years, as is the norm for civilian educators, this transition to military educator might unfold over a few weeks.

In this manuscript, we address one element of this challenge in relation to the U.S. Army Training and Doctrine Command (TRADOC), Maneuver Center of Excellence (MCoE), Maneuver Captains Career Course (MCCC), Fort Benning, GA. More specifically, we outline a job aid on the Army Experiential Learning Model (ELM; *see* The Army University, *Adult Teaching and Learning User's Guide,* Army University, n.d.) that was developed in a collaboration between the U.S. Army Research Institute (ARI) and the MCCC. The ELM Job Aid is a tool to support the bridging of operators to educators as a model approach to potentially enhance similar transitions. This work is not intended to be the sole answer to this very broad challenge, rather, the product described within this manuscript was created to address a specific need of MCCC instructors. In this manuscript we outline the intent of the ELM Job Aid, how it fits within a larger support system for new instructors, and how the product addresses a gap in

new instructor preparation. The product outlined here provides an example approach not for becoming a content expert, or even for becoming a teaching expert, but for providing additional support for the development of instructors' PCK when faced with time and resource constraints in military training and education settings.

Becoming an Instructor at MCCC

MCCC instructors are referred to as small group leaders (SGLs), and they undergo a six-week certification process to confirm their domain expertise and develop their pedagogical knowledge and skills. The certification process consists of several steps that prepare the SGLs to teach MCCC content, which focuses on a set of learning outcomes geared towards mastery of the Troop Leading Procedures (TLPs). To ensure domain expertise, future SGLs are selected who have relevant experience that includes completion of MCCC or its equivalent for a different branch, as well as having served as a Company/Battery/Troop Commander and in a relevant staff position. On average, the SGLs have served in the military for eight years. Relative to civilian roles, this experience is equivalent to obtaining a bachelor's or graduate degree in a given field. To solidify this expertise, new SGLs complete the MCCC certification course (described below) where they review and learn how to teach five foundational lessons from MCCC's Program of Instruction (POI). Finally, new SGLs must pass an examination on content, successfully teach the five foundational lessons, as well as brief an Operations Order (OPORD) to become certified SGLs. The purpose of this certification process is to ensure future SGLs can demonstrate the proficiency necessary to meet the goals and objectives of the MCCC POI.

To develop their pedagogical knowledge and skills, new SGLs complete the two week Common Faculty Development - Instructor Course (CFD-IC) and the four week MCCC certification course. These two courses comprise the six weeks dedicated to certifying new instructors. CFD-IC provides a general introduction to managing an adult learning environment and covers foundational topics such as Bloom's Taxonomy (1984; Bloom et al., 1964), Lewin's Change Management Model (Lewin, 1951), as well as the work of Knowles (1980; 1984), Pratt (1993; Pratt & Associates, 1998), and Wlodkowski (1999) on adult education and learning. In particular, CFD-IC covers an introduction to the ELM, the Army's Experiential Learning Model (*see Adult Teaching and Learning User's Guide*, Army University, n.d.). The ELM is a general approach to planning and executing instruction that can be applied across domains. The ELM is a learner-centered approach that consists of five steps or "clouds" of activity that can be flexibly applied to actively engage learners. The ELM is not intended to be a rigid stepwise sequence. It can be a recursive process when implemented in the classroom. Therefore, the steps of the ELM are also referred to as "clouds" to more clearly articulate the flexibility in how the steps of the ELM can be sequenced. For the purpose of this report, the elements of the ELM will be referred to as steps to align with the MCCC's practices and terminology as commonly used in the certification course. However, the steps are still to be seen as flexible and recursive.

The ELM includes the recursive learning cycle of *experiencing, reflecting, thinking,* and *action* (Kolb, 1984) to enable assessment of what students know, tune instruction of new material to close knowledge gaps, promote articulation of value/utility, and assess learning to enable additional instruction where needed. The flexible steps of the ELM that represent this

learning cycle are: Concrete Experience (CE), Publish and Process (P&P), Generalize New Information (GNI), Develop (DEV), and Apply. Overall, the ELM can be understood as the Army's approach to teaching, and a key purpose of CFD-IC is to provide a general introduction to this approach. Army instructors are expected to teach using the ELM, selecting the appropriate instructional strategy and methodology to benefit learners. Individual POIs must build off of CFD-IC to bridge the gap from general instructional methods of the ELM to the specific application of those methods for their course. Therefore, the MCCC certification course trains the new SGLs on how to apply the ELM to the MCCC's content and students.

The MCCC certification course trains new SGLs on effective teaching methodologies specific to the MCCC using a cognitive apprenticeship approach (Collins et al., 1991; Collins et al., 1989). Once again, there is a strong parallel to the preparation of public school teachers. As part of education programs, teachers typically execute "practicums" or "field placements" where they practice as apprentice teachers under the guidance of more senior teachers in their chosen domain. For instance, a teacher who wants to teach high school math will do apprentice teaching in high school math under the guidance of a more experienced instructor. The MCCC certification course follows a similar structure as the new SGLs learn to teach the five foundational lessons. First, the new SGLs observe a more experienced SGL, the Certification Chief, teach a foundational lesson. This is an opportunity for the new SGLs to see how their expertise can be transformed into a MCCC class and observe the expected teaching approach. After the observation, new SGLs practice teaching that class to a group of current SGLs who role-play as students. An important part of this practice is the feedback they receive from their more experienced peers. During After Action Reviews (AARs) and throughout the class, the more experienced SGLs give the new SGLs feedback on their teaching techniques and content knowledge. Part of this feedback is framed within the ELM. Over the course of five lessons, the more senior SGLs coach the new SGLs while support is gradually faded as the new instructors gain proficiency with the teaching methods (*see* Wittig et al., 2022, for a review of the approach). This process constitutes the apprenticeship for teaching where the intended outcome is proficient teachers of MCCC content. In other words, the MCCC certification course attempts to lay the foundation for the instructors to develop PCK through a cognitive apprenticeship approach (Collins, et al., 1991; Collins, et al., 1989).

Challenges

Despite the rather remarkable success of this six-week preparation program, challenges remain that surface largely due to time and staffing constraints given the nature of the Army's approach to education. Implicitly modeled on principles of Taylorism, like most educational institutions, the Army's educational approach resembles an industrial process that is designed to produce products of a specified quality in a relatively fixed timeline (e.g., see Rose, 2016). In this case, this means the "manufacturing" of SGLs who meet the intended standard (as indexed by certification) in a relatively set time (six weeks). The ability to tailor instructor preparation, or to make that instructor preparation more learner-centered, is present but is necessarily limited by time because the conveyor belt of new MCCC SGLs must stay in synch with the arrival of new MCCC students (who are on their own conveyor belt). For this reason, the nature of the scaffolding for preparation of new MCCC SGLs is evolving in a manner that has the potential to

be more responsive to individual instructor needs within the time allotted (Wittig et al., 2022). Moreover, because the CFD-IC serves not only the MCCC, but also all instructional units responsible for a variety of POIs across Ft. Benning, seat availability impacts the order of attendance at the CFD-IC and the MCCC certification course. The preferred sequence is for new SGLs to first attend the CFD-IC and then the MCCC certification course. However, due to time and seating constraints, this is not always feasible. Most new SGLs attend the MCCC certification course first then the CFD-IC. This means that for some new SGLs, they may be challenged to learn to teach the MCCC content using the ELM before they have had a general exposure to the ELM.

Likewise, during the new SGLs' practice teaches, a panel of certified SGLs frame portions of their feedback around the ELM. Thus, for those SGLs who have not yet been to the CFD-IC, they are given feedback in potentially unfamiliar terminology. This creates an additional challenge as new SGLs work to understand how to teach at the MCCC and develop their PCK. Combined, these factors create a requirement to facilitate a quick introduction to the ELM for those who need it. Moreover, even for those SGLs who do take the CFD-IC first, there is a need for a resource that can be used during or after the certification course that includes lessons learned from the application of the ELM at the MCCC for those SGLs who need additional support on particular topics. The focus of the work reported here is the creation of an MCCC-specific ELM Job Aid that addresses these needs.

It is important to note that the ELM Job Aid is not considered to be a substitute for the CFD-IC or for the MCCC certification course. The apprenticeship process needed to transition operators to educators is simply too hard and complex to replicate in a simple, self-development oriented job aid. Likewise, the focus of the CFD-IC is on a general, canonical version of the ELM that will have application beyond the MCCC as new instructors someday teach different POIs. As a result, the CFD-IC and the MCCC certification courses remain essential. Instead, the ELM Job Aid is conceived as a flexible tool to support (not replace) the bridging between the CFD-IC, the MCCC certification course, and instruction at the MCCC. In light of these objectives, the ELM Job Aid serves as a quick introduction to the ELM for those who need it and/or as a resource for those who need a refresher on particular aspects of the ELM as it is applied at the MCCC.

Development of the ELM Job Aid

To create content for an initial version of the tool, foundational materials on the ELM produced by The Army University for the CFD-IC (e.g., The Army University, *Adult Teaching and Learning User's Guide,* n.d.; *Common Faculty Development Instructor Course Student Book*, n.d.) were reviewed. This review was expanded by collaborating with the MCCC Certification Chief and observing the MCCC certification course to better understand MCCC's application of the ELM and associated instructional best practices promoted by the course. Finally, these materials were supplemented with ELM-relevant concepts from the literature such as awareness of the Zone of Proximal Development (ZPD, Vygotsky, 1978), fostering peer interaction and questioning (King, 2002; 2008; Xun & Land, 2004), and instructional approaches designed to emphasize active student engagement in critical thought (e.g., Duckworth, 2006;

Duffy & Raymer, 2010). The team used this information to create content and applied an iterative design approach to develop the ELM Job Aid. This approach ensured that the job aid would be accurate, relevant, and easily usable by its intended end-users. Iterations included multiple reviews of the content and design features and a review by the MCCC Certification Chief who edited the content for alignment with MCCC objectives. Once consensus on the content was reached, versions of the job aid were also reviewed by MCCC senior SGLs, MCCC leadership, and members of the MCoE Staff and Faculty Development Branch who taught the CFD-IC.

Collectively, these reviews commented on the utility of the job aid and its clear explanation of MCCC teaching practices. In addition, comments focused on issues such as when to introduce the job aid and refer back to it (i.e., at the start of the Certification Course), additional applications of the approach (i.e., use of the ELM for development outside of the formal classroom as well as inside), and the inclusion of additional MCCC-specific examples/content. Comments also focused on the need to clarify nuances in the application of the five steps of the ELM such as learning about students through relatable CEs and associated P&P activities. Similarly, comments addressed how to tailor instruction based on the CE and P&P during the GNI stage of instruction, and how to use student articulation of value of the material to assess instructional effectiveness (DEV).

Finally, a group of newly certified SGLs reviewed the materials. They commented on the utility of the material when it was introduced at the beginning of the certification course and for later reference as they got feedback on their apprentice teaching. Some comments focused on usability issues (e.g., navigation) and/or on specific content elements such as examples of teachers to model (or not), consideration of the ZPD, and explanations of how to adjust/tailor instruction based on learner state. As a future consideration, student instructors noted the potential value of additional examples/videos of seasoned MCCC instructors as another resource to illustrate instructional approaches. Based on refinements following various stages of review, the final version of the ELM Job Aid was created and has been integrated into MCCC's SGL certification course. It is introduced through a high level review at the start of the course by the Certification Chief and made available as a general, on-demand resource for the new SGLs throughout the certification process. The new SGLs are encouraged to reference the job aid as they prepare their practice teaches. The final version of the job aid is provided in Appendix A[1], and the format of the job aid is described below.

Format and Content of the ELM Job Aid

The ELM Job Aid, as illustrated in Figure 1, was developed in PowerPoint to facilitate future editing as new techniques or instructor challenges emerge. In addition, this medium enabled individual review by new SGLs as well as its use in the MCCC certification course to illustrate key concepts in class if/as needed by the Certification Chief.

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[1] Appendix A has images of the ELM Job Aid PowerPoint slides. Those interested in obtaining the PowerPoint slides should contact Dr. Ashley Wittig at ARI (ashley.h.wittig.civ@army.mil).

Figure 1.

Initial entry screen for ELM Job Aid
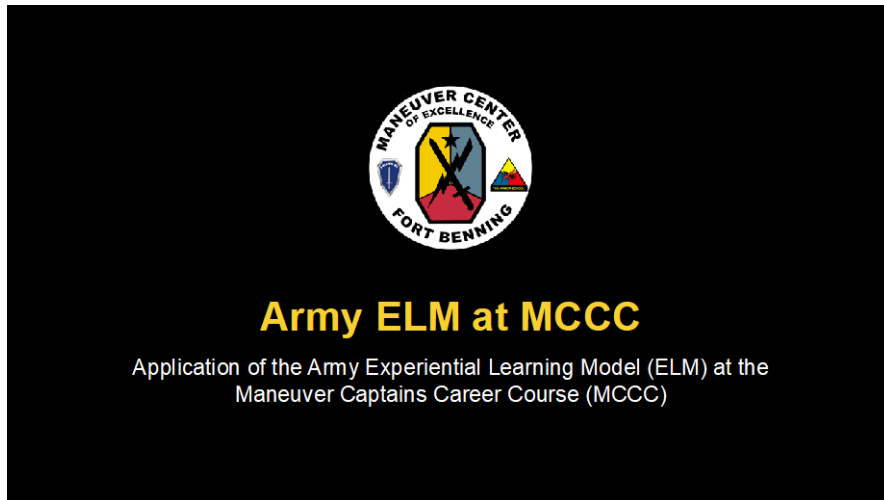
Per the above discussion of needs, the design enables two modes of use. The first involves navigation directly to specific topics organized by the steps of the ELM for SGLs in need of specific refreshers/guidance on key issues. Figure 2 shows this initial navigation page, and Figure 3 shows a typical page relevant to a topic, which in this example shows sample content for leading discussion within the P&P. For each step of the ELM, content includes an overview of the purpose, a summary of typical methods used by the MCCC, alternative approaches to consider, and "Tips and Tricks" based on the practices of seasoned SGLs.
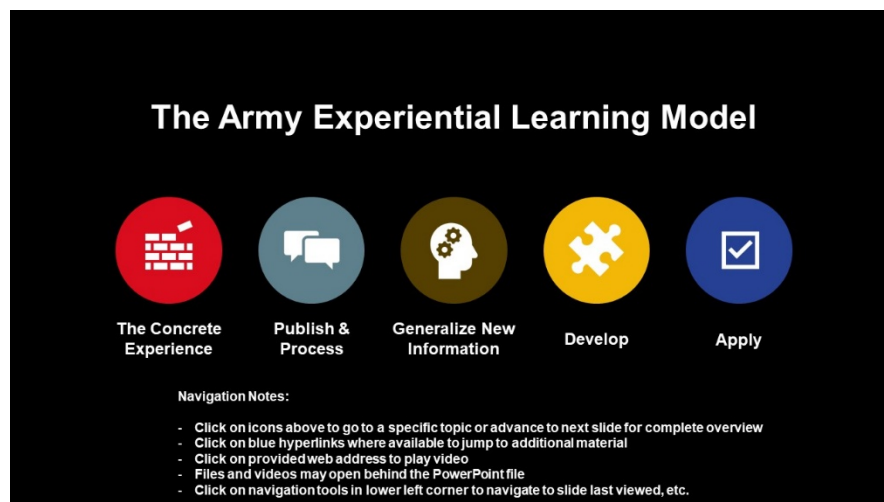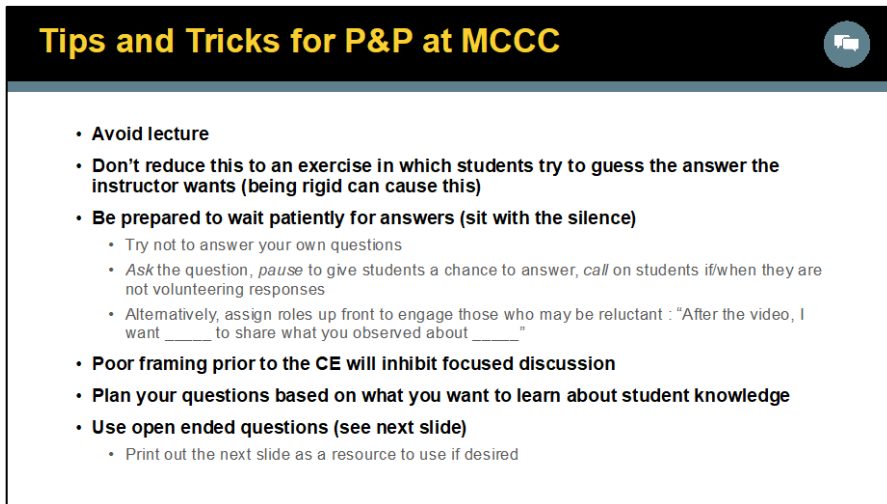
Figure 2.

Navigation screen ELM Job Aid

Figure 3.

Example content for the P&P

The second use mode consists of navigation through the entire lesson including all of the ELM steps in a manner that utilizes the ELM. Navigation in this manner through the entire instructional module uses the ELM to provide instruction on the ELM. In doing so, the goal is to leverage a strong design technique while at the same time helping the new SGLs generalize the ELM. This is done by providing an example of how to use the ELM in a different context (teaching in general) to accompany the lesson specific examples on TLPs that they review in the MCCC certification course. Going through the complete module includes the same guidance on the specific steps that could be accessed individually per the above descriptions (e.g., Figure 3). In addition, the materials include links to popular videos to illustrate contrasting instructional techniques to provide examples as a CE as well as associated questions to prompt analysis that serves as the P&P. For example, in the section on GNI the users are prompted to compare two clips from the *Harry Potter* movies that showcase the very different teaching approaches of Remus Lupin and Dolores Umbridge (Figure 4). More generally, across ELM steps the materials include videos to illustrate key concepts, examples of strategies, and links to materials to record observations and reflections if/as needed given direction from the Certification Chief.

Figure 4.

Videos and Discussion Questions for GNI

Conclusions

While a strong base of content knowledge is necessary for effective teaching, it is not enough to just be a subject matter expert. There is also a need for expertise in teaching, and more specifically, for expertise teaching in a particular domain, PCK. Within military settings, this combination of requirements is especially challenging given rapid changes between roles in the institutional Army and the operational Army. While the Army provides instruction on teaching for TRADOC instructors Army-wide through the CFD-IC, challenges remain as operators try to quickly fill instructional slots and develop the PCK needed to effectively teach their future students. Here, we outlined an instructional job aid to support this bridging of operators to educators as a model approach to potentially enhance similar transitions. Notably, the job aid is intended to be used in conjunction with experiences gained in the CFD-IC and in a course-specific certification process that serves to guide apprentice instructors and help them develop PCK. The tool set presented here addresses a way to further support instructors who need additional guidance with respect to POI-specific teaching when faced with the time and resource constraints characteristic of military training and education settings.

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* These sources appear in the ELM Job Aid

Acronyms

AAR	After Action Review
ARI	U.S. Army Research Institute for the Behavioral and Social Sciences
CDR	Commander
CO	Company
CE	Concrete Experience
DEV	Develop
CFD-IC	Common Faculty Development – Instructor Course
ELM	Army Experiential Learning Model
GNI	Generalize New Information
IPB	Intelligence Preparation of the Battlefield
MCoE	Maneuver Center of Excellence
MCCC	Maneuver Captains Career Course
MDMP	Military Decision Making Process
NAI	Named Area of Interest
OPORD	Operations Order
P&P	Publish and Process
PCK	Pedagogical Content Knowledge
PME	Professional Military Education
POI	Program of Instruction
SGL	Small Group Leader
TDE	Tactical Decision Exercise
TLPs	Troop Leading Procedures
TRADOC	U.S. Army Training and Doctrine Command
ZPD	Zone of Proximal Development

Objective

- **Understand how and why the ELM is used at MCCC**
- **Know how to apply the ELM to meet future instructional needs**

Overview

- **Explore implications of different approaches to instruction**
- **Learn about the ELM at MCCC**
  - How the ELM is applied
  - Suggestions/tips/tricks
- **Begin to apply the ELM to your own instruction**

Instructional Approaches

- **Watch the following clips of instructors**
- **In each case, pay attention to the following questions:**
  - What do the instructors want the students to learn?
  - What do the instructors do?
  - What do the students do?
  - What do the students learn?
- **Click here to record observations**
  - Save a copy using a new file name for your answers

Example 1: Ferris Bueller's Day Off
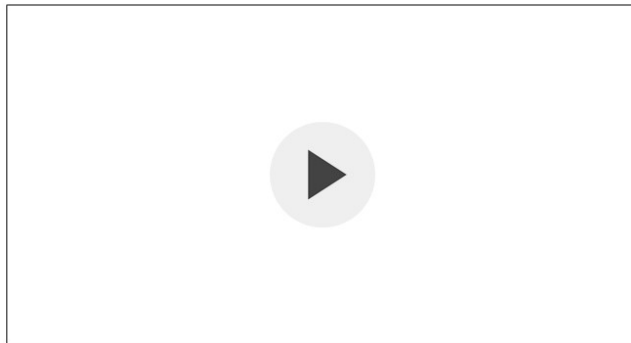
Play clip from *Ferris Bueller's Day Off* (Hughes, 1986) showing lecture-based instruction, for instance as found at:
https://www.youtube.com/watch?v=uhiCFdWeQfA

Example 2: Dead Poets Society
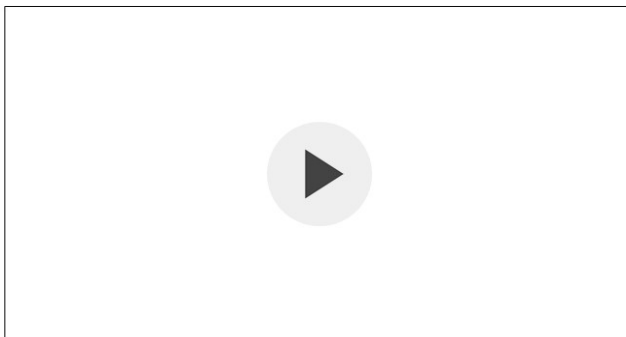
Play clip from *Dead Poets Society* (Weir, 1989) showing conformity exercise, for instance as found at:

https://www.youtube.com/watch?v=E8BYDK9JX5E

Questions for Consideration

- **Think through (or discuss if working with others) these questions:**
  - What did you observe?
  - How were the approaches the same and how were they different?
  - What was the overall teaching objective in each case?
  - What did the instructors do to reach that objective (outcome)?
  - What did the students do?
  - What do you think the students learned? Was that the intended outcome?
  - Did you have similar instructors when you were a student? What did you learn? Why?
  - What do you think about the two approaches? What are the strengths of each? What are the pitfalls of each? Why?
  - When might a lecture be an effective method of instruction? Why?
  - What makes instruction effective?
- **Click here to record your reactions**
  - Save a copy using a new file name for your answers

The ELM at MCCC

- **MCCC employs the ELM to plan and execute instruction**
  - Promote student engagement
  - Facilitate student connections to prior knowledge and future duties
  - Trigger critical thinking by asking rather than prematurely telling
- **The ELM is a student-centered framework that can be adapted**
  - It is not intended to be rigid
  - The flow between steps will be dynamic
  - Your application should be matched to student needs

Overview of the ELM

- **Five steps of the ELM:**
  - **The Concrete Experience (CE)**
  - **Publish & Process (P&P)**
  - **Generalize New Information (GNI)**
  - **Develop (DEV)**
  - **Apply**

The key to the ELM at MCCC is to view the instructor as a facilitator of learning rather than a conveyor of knowledge: *Lecture less. Listen more.*

Summary of the ELM at MCCC

Stage Title	1. CE	2. P&P	3. GNI	4. DEV	5. Apply
Description	• Shared experience to ground lesson	• Facilitated discussion/reaction to CE	• Where new information is presented	• Reflection and expression of value	• Check on learning
Characteristics	• A video, personal military experience, historical vignette, etc. • Involve all students • Not a pretest • No right or wrong answers	• Sharing of observations • Sharing of reactions • Sets the stage for GNI	• Multiple ways to deliver such as lecture, discussion, demonstration, practical exercises • Not a passive learning activity	• Sharing of observations in terms of value and future utility	• Enables instructors to confirm students met the learning objective • Not a test • Should not be delayed
Students	• Involved • Interact with classmates	• Reflect and answer open-ended questions related to the CE	• Actively listen, participate, and collaborate	• Reflect • Share reactions • Express value	• Apply knowledge in an activity that makes understanding transparent
Instructors	• Set up • Observe • Facilitate	• Facilitate discussion • Don't lecture • Use open-ended questions • Use discussion to identify what students know	• Present, clarify, and collaborate with students • Link back to CE • Tailor approach to what the students know	• Facilitate discussion • Use open-ended questions • Don't express value for the students	• Use appropriate method to gauge understanding • Provide feedback and revisit material as necessary

The Concrete Experience (CE)

- **The CE serves to:**
  - Trigger past experience and knowledge to build connections
  - Act as a hook to engage student interest and to promote perceived value
  - Provide a common, shared experience/example to ground the lesson
- **In this lesson on the ELM, the CE includes the video clips and set up on slides 5 through 7**
  - The clips show contrasting approaches to instruction to stimulate thinking about what matters
- **What were the CEs in the Ferris Bueller and Dead Poets examples? Were they effective?**
  - Ferris Bueller
  - Dead Poets
  - Click here for answers/explanations

Alternative CEs

- **MCCC often uses videos as the CE, but the CE need not be a video**
- **Alternatives include but are not limited to a historical vignette, a practical exercise, a personal military experience, a demonstration, a picture, or a provocative quote…**
  - Any shared class experience, from an earlier practical exercise to PT, has the potential to act as a future CE
- **Other relevant examples for this lesson:**

A Quote	An Exercise
Discuss:	Imagine that you want to teach a new Soldier about the rules for safe weapons handling. I will play the trainee. Who will try being the instructor?
"The students watch us, all the time. We must honestly ponder what they see, and what we want them to learn from it" (Sizer & Sizer, 1999).	**Explore what the instructor did, what the trainee did, and what was learned.**

Tips and Tricks for the CE at MCCC

- **Frame the CE -- Give guidance on what to watch for and what you plan to discuss**
  - For instance, for Ferris Bueller and Dead Poets the framing asked:
  - What do the instructors do?
  - How do the students respond?
- **Tie the CE to the central intended learning outcomes**
- **Refer to the CE throughout the lesson to ground discussion and stimulate connections**
  - This is the hallmark of a good CE
  - During rehearsals identify specific parts of the lesson you can tie back to the original CE

Publish and Process (P&P)

- **The P&P flows from the CE and students will see it as one event**
  - **Publish:** Students should share what they observed
  - **Process:** Students should share their reactions, consider alternative points of view, and examine their own assumptions
- **The P&P should be facilitated and not directed by the instructor**
  - It is not a lecture
  - It is a time for students to think critically as they share alternative points of view
- **The lesson can be adapted as the instructor learns what the students know**

What the instructor must focus on later in the lesson

What the students know
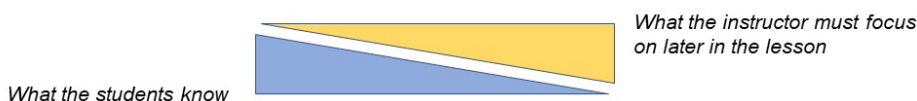
- **In this lesson, the P&P are the "Questions for Consideration" on slide 8.**
  - What are examples of publish and process questions on slide 8?
  - Click here for answers/explanations

Tips and Tricks for P&P at MCCC

- **The P&P is a time for the students to engage in productive struggle:**
  - Take time to let the students be wrong and help each other figure out appropriate solutions
  - Do not remove the student's responsibility to think by telling them the right answer too soon
  - Let the students run -- They might surprise you and you may even learn from them
  - In the end, you should share the right answer if they don't get there on their own, but be patient
  - Note: Robin Williams could have let the students answer questions about why they walked the way they did before telling them his thoughts

"The virtues involved in not knowing are the ones that really count in the long run. What you do about what you don't know is, in the final analysis, what determines what you will know" (Duckworth, 2006).

Tips and Tricks for P&P at MCCC

- **Avoid lecture**
- **Don't reduce this to an exercise in which students try to guess the answer the instructor wants (being rigid can cause this)**
- **Be prepared to wait patiently for answers (sit with the silence)**
  - Try not to answer your own questions
  - Ask, pause, call
  - Call on students if/when needed if they are not volunteering responses
  - Alternatively, assign roles up front to engage those who may be reluctant : "After the video, I want _____ to share what you observed about _____"
- **Poor framing prior to the CE will inhibit focused discussion**
- **Plan your questions based on what you want to learn about student knowledge**
- **Use open ended questions (see next slide)**

Tips and Tricks for P&P at MCCC

Example questions to promote discussion, engage thought, and learn about your students:

- What did you see? What happened?
- What is the difference between … and …?
- How are … and … similar?
- Could you give an example?
- What is your reaction to…?
- What is the significance of …?
- Explain why …
- What do you mean?
- What do you think would happen if …?
- How might … affect …?
- What conclusions can you draw about …?
- What are the strengths and weaknesses of …?

- Which … do you think is best and why?
- What evidence is there to support your answer?
- How does … fit with what she just said?
- I don't really get that; could you explain it in another way?
- I am not sure; what do others think?
- How is … related to … that we studied earlier?

> *In this lesson on the ELM, these types of questions help the instructor understand what the students know:*
>
> *What do you think about the instructional approaches in the two video clips? What are the strengths of each? What are the pitfalls of each? Why?*

Generalize New Information (GNI)

- **The GNI is where new information is presented**
- **How the GNI is approached should be matched to the learning goals and needs of the students**
  - Specific teaching techniques can vary and can include lecture, discussion, demonstration, practical exercises, simulation, etc.
  - Your lesson plan should not be rigid – Based on the P&P, you should tailor your lesson based on where students are currently and where they need to be
- **In this lesson on the ELM, you are currently in the GNI, which is employing direct presentation of material via slides**
  - Where did the GNI start in this lesson on the ELM? How do you know?
  - Click here for answers/explanations

The GNI at MCCC

- **The primary method employed at MCCC centers around <u>collaborative</u> board development**
  - During IPB Steps 1-2, students help to populate boards and construct a Graphic Terrain Analysis Overlay (GTAO)
  - During IPB Steps 3-4, students assist with production of an Enemy Situation Template (SITEMP) and create their own
  - During Course Of Action Development, instructors facilitate student understanding of the COA DEV process and creation of a COA Sketch and Statement
- **However, a variety of methods can be used**
  - In the Battalion phase, students conduct collaborative "war-gaming" exercises during iterations of the MDMP to take their plan from conceptual to detailed

Alternatives for the GNI

- **There are many ways to convey new information along with collaborative board development**
  - Lecture, discussion, demonstration, practical exercises, simulation, etc.
- **The methods employed should match the intended learning outcome and student needs**
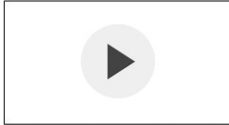
Play clip from *Harry Potter and the Order of the Phoenix* (Yates, 2007) showing Dolores Umbridge teaching, for instance as found at:
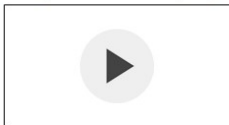https://www.youtube.com/watch?v=gMHgxkRYt64

Play clip from *Harry Potter and the Prisoner of Azkaban* (Cuaron, 2004) showing Remus Lupin teaching, for instance as found at:
https://www.youtube.com/watch?v=doxxfXqpKYA

- What approaches do Dolores Umbridge and Remus Lupin use in these clips?
- What was Umbridge's intended learning outcome and what was Lupin's intended learning outcome?
- Who did a better job meeting their objective? Why?
  Click here for answers/explanations

Zone of Proximal Development

- **A key concept at play in Lupin's classroom is the Zone of Proximal Development (ZPD)**
  - The ZPD is what a student can do with support/guidance
- **Practical exercises, problems, etc., must be within a student's ZPD to be effective**
  - If a student succeeds, they may grow in confidence and initiative ("I can do this")
  - If they fail, a student may lose confidence and initiative ("I can't do this")
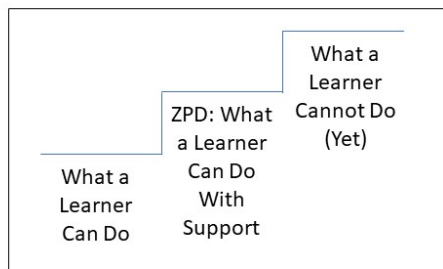
In the previous video, Lupin takes a risk with his students – Especially Neville, who he cold calls and who is quite nervous. Neville succeeded, but if he hadn't, he might have been even more discouraged with his abilities

Example Alternatives for the GNI at MCCC

- **Exploring critical and creative thinking via the Marshmallow Challenge**

Play clip from *Build a Tower, Build a Team* (Wujec, 2010), for instance as found at:
https://www.ted.com/talks/tom_wujec_build_a_tower_build_a_team/transcript?language=en#t-8359

- **Developing Named Areas of Interest (NAI) via the Exit 10 Board Drill**

- **Learning about key planning challenges via the Bush Hill Historical Vignette**

The marshmallow challenge
-Build a tower with supplied kit only
-tower must be freestanding
-marshmallow must be on top of tower
-you will be marked on the height of your tower

One marshmallow
1m string
1m tape
20 pieces of spaghetti
18 minutes

Tips and Tricks for GNI at MCCC

- **Tie content back to the CE and discussion during the P&P where possible**
  - In this lesson, we might ask about the initial videos to illustrate teaching methods
- **Hold students accountable by pulling out connections to assigned reading**
- **Make board development a collaborative process where students:**
  - Help generate content (definitions and ideas/concepts)
  - Help write content on the board
  - Help solve problems
    - For instance, identifying the Decisive Point
- **Avoid the pitfall of unnecessarily covering what students already know**
  - Adjust what you cover in the GNI based on what you learn during the P&P
  - Verify your assumptions through checks on learning (e.g., ask questions like those for the P&P)
- **Avoid the pitfall of reducing the GNI to merely a lecture**
  - Use various techniques/activities/events to encourage the students to be active participants

Develop (DEV)

- **The DEV should enable students to express the value of the lesson material by connecting it to future needs/uses**
  - Value should have been established throughout the entire lesson starting with the CE
  - The DEV focuses on students articulating and sharing value through further reflection
- **The DEV is intended to further develop critical thought as students formulate and share why the material is important**
- **The DEV also serves as a check on learning**
  - If students have trouble expressing value, do not simply move on by telling them. Key material may need to be revisited and/or instructional approaches augmented in the future
- **In this lesson on the ELM, the DEV is on slide 31**
  - How do these questions try to prompt the student to make and share connections? What else might you ask?
  - Click here for answers/explanations

The DEV at MCCC

- **At MCCC, students can be encouraged to share their thoughts on value by connecting what they learn to what they must do in the future**
- **For instance, questions to ask might include:**
  - Imagine that you are a company commander: Why might what we just covered matter? How might you use what we just learned?
  - Looking to the future, which method that we just discussed might you use when doing _____ ? Why will it be helpful/of value to you?
    - What evidence do you have to support your answer?
    - What do others think?

Tips and Tricks for Dev at MCCC

- **At MCCC, the DEV may not be clearly distinct from the GNI if the students are asked to share connections along the way**
  - When and how might this help you? Why?
- **From the student perspective, immediate utility may relate to OPORD briefs, but encourage expression of future value as well**
  - How will this help you in an OPORD brief?
  - Why does this matter?
  - How might this be valuable when you are a CO CDR?
  - What do others think? Why?
- **Discussion of value can incorporate examples of how to brief**
  - How would you say this? What is important for your audience to know? Why?
  - You can follow up by modeling what right looks like if/as needed
- **Students need to express value as it is developed (don't express it for them – you can't force a student to value something)**
  - You can continue to develop value as you revisit and iterate on key concepts in future classes

Apply

- **Apply might be viewed as a quiz or test, but in the ELM, the purpose is not evaluation of the students per se**
  - Apply is a way for the instructor to evaluate learning so that it can be better facilitated by providing additional guidance, clarifying, etc.
  - It is a feedback tool both for the student and the instructor (called formative assessment)
  - It is NOT about performance (a grade), it is about facilitating growth
- **Apply is the final step of the ELM, although simple assessments can be used along the way to verify understanding**
- **In this lesson on the ELM, Apply starts on slide 32 where a review of student responses can uncover understanding to adjust further instruction if/as needed**
  - Option A uses observation of other instructors
  - Option B asks about application to an upcoming lesson

Apply at MCCC

☑

- **OPORD briefs are graded → They are a test**
- **However, OPORD briefs are used to provide students individual feedback to help learning**
  - Done iteratively, they can help the instructor identify areas of struggle to discuss and clarify before the next brief
  - If one student makes an error, it may be unique to the student
  - If many students make the same error, it may reflect on instruction
- **Students may view OPORD briefs as primarily about the grade**
  - As the instructor, you can emphasize growth and learning
  - "This is difficult, but you will be able to do it next time if …"
  - "I am most interested in how you improve with respect to …."
- **During lessons at MCCC, Apply may be as simple as asking questions along the way to verify understanding**
  - Cold calling on a representative sample of students

Tips and Tricks for Apply at MCCC

☑

- **Beyond asking questions at a group level, there are ways to be more systematic in verifying understanding**
- **Use Exit Tickets by having students write a short answer (a few sentences or within a few minutes) to a question at the end of class that is handed in before they leave**
  - Define a key term in their own words
  - Solve a simple problem
  - Summarize a key point in one sentence
  - The most important thing I learned today is …
  - The thing I am most confused about from today is …
- **Make a quiz on key concepts into a game (e.g., Kahoots, see www.kahoot.com)**
- **Assign Tactical Decision Exercises (TDEs) to give students an opportunity to apply what they learned after class with the expectation of discussion the following day**

Reflection on the ELM and MCCC

- **Think through (or discuss if working with others) these questions:**
    - How does the ELM fit (or not) with what you saw the instructors do in the various clips (Ferris Bueller, Dead Poets, Harry Potter)?
    - What conclusions can you draw about what makes instruction effective?
    - Based on what you saw in the clips, and what you learned about the ELM, how will this help you teach students about TLPs and MDMP at MCCC? Why is this useful?
    - What are the similarities and differences between you and the instructors you observed in the clips?
    - How might you adjust how you teach based on what you saw? Why?
    - How might you use the ELM to be more effective at MCCC?
- **Click here for document to record your reactions**
    - Save a copy using a new file name for your answers
- **Click here to return to slide 25**

Application (Option A)

- **Based on a lesson that you recently observed or will observe at MCCC:**
    - Fill out the Instructor Developmental Observation Worksheet
        - Save a copy using a new file name for your answers
- **As you answer the questions in the worksheet, especially 2b and 2e, think about the following issues as applicable:**
    - What were the CE, P&P, GNI, DEV, and Apply?
    - Were they all there?
    - Were they effective?
    - What would you keep? Why?
    - What would you change? Why?
- **Click here to return to slide 28**

Application (Option B)

- **When you next lead a class as part of the certification course:**
  - How will you design it? Why?
  - How does what you plan to do connect to the ELM?
  - What part do you think will be most effective? Why?
  - Where do you anticipate the most friction for the students? Why? What could you do to mitigate it?
  - How will your approach deliberately support meeting MCCC's student outcomes?
  - How will you know if you have done a good job and how you can improve?
- **Click here for document to record responses**
  - Save a copy using a new file name for your answers
- **Click here to return to slide 28**

Summary/Conclusion

- **This lesson covered how the ELM is and can be applied at MCCC**
- **The ELM is a way to plan and present instruction**
  - You have latitude to adapt the ELM to fit the learning needs of your students
- **The key to the ELM at MCCC is:**
  - Engagement – Students as active participants who must critically think rather than passively absorb information
  - Connections – Helping students make connections to prior knowledge and future duties
- **Consider reviewing this material again as you gain experience and reflect more on your teaching at MCCC**

Army ELM at MCCC

Application of the Army Experiential Learning Model (ELM) at the
Maneuver Captains Career Course (MCCC)

Answers/Explanations (Slide 12)

- **There is no evidence of a CE in the Ferris Bueller example**
- **The CE in Dead Poets appears to be the walking exercise**
  - The CE is not an accident and is directly connected to the focus of the lesson
  - The lesson is about conformity in relation to Frost's poem: "Two roads diverged in a wood, and I – I took the one less traveled by, And that has made all the difference."
-

Answers/Explanations (Slide 15)

- **Publish questions are near the top of the list on slide 8**
- **Process questions are near the bottom of the list, with a transition in the middle**
- **What happens with each question will depend on how the students react such that they may result in publish, process, or both**
- Click here to return to Slide 15

Answers/Explanations (Slide 19)

- **In this lesson, the GNI starts on slide 9**
- **It starts after the P&P and is marked by direct delivery of new information on the ELM at MCCC**
- Click here to return to Slide 19

Answers/Explanations (Slide 21)

- **Umbridge intends to use lecture with readings from a simplistic book**
- **Lupin uses a practical exercise**
- **Umbridge's method is not necessarily wrong because her intended outcome is that she does not want the students to know how to do the spells. She may be evil, but she is not necessarily teaching incorrectly given her goals**
  - However, in the long run, avid readers may note that Umbridge fails because the students teach themselves. What the students learn is not what Umbridge intended
- **Lupin's intended outcome is that the students know how to do the spells, and his method works too, which is a practical exercise with coaching**
  - However, avid readers may note that Lupin too makes a mistake in that he temporarily lets Harry think that Lupin does not have faith in Harry's abilities. What Harry learns is not what Lupin intended
- Click here to return to Slide 21

Answers/Explanations (Slide 25)

- **The initial questions on slide 31 act as a summary to get the students to reflect on the big picture**
- **The later questions act as the DEV by asking the students to share value by making connections to how they will use what they have learned**
- Click here to return to Slide 25