Good Governance Introduction Course

A Dutch Example of Online Constructivist Officer Education

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Abstract

Various perspectives, different interpretations, and uncertainties often make military operations multidimensional and fuzzy. Recent research shows that officer cadets find it difficult to cope with such military operational settings. Consequently, there is a need for a learning theory to deal with such complex situations during military operations. With its multidimensional worldview, constructivism can provide that learning theory. Furthermore, due to the advantages of online learning catalyzed by the COVID-19 pandemic, the usage of online education is growing. That leaves us the general question of how we can adequately provide online constructivist education to officer cadets and officers. Therefore, we

sought answers to two specific questions. Firstly, what is a suitable instructional design method to enable online constructivist learning? Secondly, how can we use such an instructional design method to create an online constructivist course for officers? To this end, we examined the online constructivist courses of an educational program for physicians in training at the Academy for Postgraduate Medical Education of the Maastricht University Medical Centre+. We then used the instructional design underlying those courses to create an online constructivist course for officers at the Civil-Military Interaction Command of the Royal Netherlands Army: the Good Governance introduction course (Good GOV course). We described per phase the learning activities, including some examples of questions and assignments. The design of the Good GOV course shows how the military can employ an instructional design commonly used in another field to improve military education. Further exploration and research are required to answer the question of how military education can reap the benefits of learning sciences and take advantage of the learning experiences of other professions and organizations.

Uruzgan, Afghanistan, 2009. Dutch military forces operate in this area as part of the multinational Provincial Reconstruction Team Uruzgan under Dutch command. Kitzen (2019) defines the objective of the provincial reconstruction team as "enhancing stability by promoting good governance and facilitating reconstruction" (p. 46). Some parts of the population favor the foreign military forces and their plan of strengthening and consolidating the Afghan government. However, other parts of the population resist openly or covertly. The Dutch armed forces must make contact, negotiate, and cooperate with both the leaders of the Afghan people in Uruzgan and the representatives of numerous domestic and foreign organizations. Consequently, the Dutch armed forces must manage many different actors simultaneously; among others, government officials, staff members of nongovernmental organizations (NGOs), tribal leaders, and informal power brokers. All have their often unspoken opinions about religion, culture, ethics, constitution, and society. That makes the operational situation multidimensional, nebulous, and dynamic. With each new development and every next step, Dutch officers must decide on their way forward. Can they construct a consistent and workable picture of the operational situation? Can they stay connected with all local stakeholders? Can they accomplish good governance to achieve the objective of the provincial reconstruction team?

Elahi (2009) defines governance as "the processes and structures that guide political and socio-economic relationships" (p. 1170). Military operations involving good governance are complex. After all, there are multiple ways to look at a versatile

situation involving uncertainties. The perspective and interpretation can vary with the person, discipline, interests, and time. Various perspectives and interpretations can lead to other decisions. Other decisions can, in turn, lead to different actions. The choice for specific activities self-evidently influences the outcome of a military mission. That is why awareness of possible perspectives and interpretations and the competence to deal with them adequately in the decision-making process are of great interest to officers.

Nevertheless, recent research by Jansen (2019) shows that officer cadets struggle with precisely that issue. Officer cadets find it difficult to cope with situations that involve multiple perspectives and uncertainties. Consequently, as Hornstra (2021) previously advised, officer education should benefit more from the learning theory that is most suitable for learning how to handle those multidimensional and fuzzy situations. That learning theory is constructivism.

Constructivism as a learning theory states that learners actively construct their own knowledge. Socioconstructivism underscores the social element in this learning process: learners coconstruct knowledge with their peers and teachers (Harasim, 2017). As a result, constructivism takes a fundamentally different position than the other major learning theories: behaviorism and cognitivism. In brief, behaviorism views learning as establishing the right stimulus-response reactions in learners. Cognitivism, on the other hand, regards learning as the processing of information in the mind of the learners (Harasim, 2017).

Constructivism is based on a world view open to various perspectives and interpretations (Ertmer & Newby, 2013). This world view has considerable consequences

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for the role of the learner. Rather than passively receiving information, learners must construct their own viewpoints based on the multiple perspectives and interpretations presented to them or found by them (Bower, 2017). In the view of constructivism, the role of the teacher changes as well. Rather than the traditional transferring of information from teacher to learners, teachers need to establish the conditions for learners to construct knowledge themselves (Bruner, 1990). Accordingly, here we consider, as Ertmer et al. (2013) suggest, constructivist learning is a process in which learners actively and socially construct knowledge by testing and applying ideas in solving real-world problems.

Constructivism has been around for many years. Moreover, educators have applied constructivist learning principles to adult education and online learning for almost as many years. In what way does the design of online constructivist officer education contribute to our understanding of education in general and in the military context in particular?

For education in general, incorporating constructivist learning principles in instructional design remains intricate. Constructivism is an ambiguous concept by nature. Constructivism includes many different theoretical views and interpretations (Harasim, 2017; Phillips, 1995). Because of this, many educators are unsure on what specific theoretical basis they should start designing constructivist education. Over the years, many claimed that constructivism as a learning theory does not automatically result in instructional design (Karagiorgi & Symeou, 2005; Mayer, 2009; Savery & Duffy, 1995; Tam, 2000). Educators may thus experience difficulties translating the learning theory of constructivism into actual instructional design.

For military education, the value of constructivist learning is ever more acknowledged (Bannan et al., 2020; Ellis et al., 2021; Sookermany, 2017). After all, a singular worldview, with its lack of different perspectives and interpretations, does not do justice to the complex circumstances of a modern military mission. Nevertheless, at a military academy, such a singular world view can still dominate the educational approach (Jansen, 2019). To prepare officer cadets for their future job in which they have to cope with multiple world views with inconsistencies and uncertainties, Hornstra (2021) recommends incorporating constructivist learning principles at a military academy where applicable. However, he points out that in the military context, educators must figure how to design instruction based on that ambiguous concept of constructivism.

Additionally, due to the advantages of online learning, the usage of online education is increasing. This transition from offline to online education has in many places been catalyzed by the current COVID-19 pandemic. From a practical point of view, online (i.e., location-independent) education eliminates travel costs, facilitates scheduling, and is risk-free concerning COVID-19. From early 2020, distance learning has become more common in the U.S. Army (Kenyon, 2020). Concerning education in the Netherlands, a similar development has taken place (Van der Spoel et al., 2020).

In short, there is a need for constructivist education for officer cadets and officers. Educators may face challenges in designing such constructivist education, as there is an increasing emphasis on online education. This leaves us the general question of how we can provide adequate online constructivist officer education. To this end, we sought answers to two specific questions in this article. First, what is a suitable instructional design to enable online constructivist learning? Second, how can we use such instructional design to create an online constructivist course for officers?

The U.S. Department of the Army (2017) recommends using the insights of learning sciences to implement innovative instructional methods. Bannan et al. (2020) recently made the same recommendation in this journal. Regarding innovative instructional practices, what can the military learn from other organizations with a similarly high level of professionalism? Like officers, physicians must meet high standards of professionalism (Kirk, 2017). Therefore, the instructional design used at an academic medical center could be promising to explore for military use. In other words, what can the military learn from an academic medical center about online constructivist learning?

In the following sections, we briefly discuss the role of constructivism in medical education. We then describe the instructional design of online constructivist courses of an educational program for physicians in training. Lastly, we apply that instructional design to create the online constructivist Good Governance introduction course (Good GOV course) for officers working at the Civil-Military Interaction Command of the Royal Netherlands Army.

Online Constructivist Course for Physicians in Training

For many years, constructivism played an essential role in medical education (Dennick, 2016). After all, medical disciplines typically produce various perspectives and interpretations on medical situations (Elshamy, 2017). Common instructional methods in medical education, such as portfolio development, have emerged from constructivist learning principles (Mukhalalati & Taylor, 2019).

The learning principles of constructivism are thus commonplace in medical education. For that reason, we examined a specific educational program for physicians in training at the Academy for Postgraduate Medical Education of the Maastricht University Medical Centre+ (Maastricht UMC+) in the Netherlands. In this educational program, in which two educational researchers (SH and WvM) are involved, physicians in training learn generic (i.e., nonmedical) competencies. Good physicians are not only medical experts; they also need to have generic competencies associated with roles such as scholar and manager (Frank, 2004).

For example, in the multicultural healthcare course in this educational program, physicians in training learn to view end-of-life care from various views to make

well-founded medical treatment decisions for individual patients. Such a course is about collaborating with others, exploring multiple perspectives and interpretations, developing individual points of view, and learning to solve authentic problems in meaningful contexts. According to the insights of Ertmer and Newby (2013), a course such as this multicultural health-care course contains the characteristics of constructivist education. Additionally, due to COVID-19, the mentioned educational program saw a significant increase in the use of online education. The necessity to design online constructivist courses for the physicians in training led to the flexibility-activity framework of Collis and Moonen (2001). In the following sections, we elaborate upon applying this instructional design model at the Maastricht UMC+.

Educationalists of the Maastricht UMC+ used the flexibility-activity framework of Collis and Moonen (2001) to design online constructivist courses. The instructional design of Collis and Moonen (2001) is a web-based pedagogical framework with two parameters: flexibility and activity. They assess learning environments by the degree of flexibility regarding location, time, and content. They also categorized learning environments by the goal of the activity. Participants can either acquire knowledge or contribute knowledge. Collis and Moonen (2001) consider education a learning cycle with three phases: before, during, and after a focal event. To meet the learning needs, the degree of flexibility and contribution varies per phase.

Within the educational program for physicians in training, the practice of the three phases is as follows. In the before phase, the participants prepare themselves at their own pace and in their own way for the focal event. In this phase, flexibility is high, and the participants mainly acquire knowledge. Typical activities in the before phase include looking for relevant literature and other sources, exploring theories and models, and discussing.

During the focal event, the flexibility strongly diminishes. At a set point in time, the participants learn predetermined knowledge and complete preplanned assignments. The focal event starts with the participants acquiring knowledge, but the emphasis shifts to contributing knowledge. For participants, this often means attending a lecture or watching an instructional video, followed by working together on real-life cases.

In the after phase, the participants work on follow-up activities. The flexibility increases considerably. In this phase, the emphasis is still on contributing knowledge. At their own pace and in their own way, the participants focus on learning activities such as studying additional materials, discussing with each other, continuing working together on real-life cases, and reflecting on the learning process and learning results.

The flexibility-activity framework of Collis and Moonen (2001) clearly offers an instructional design method that can be used for online constructivist style classes. This framework encourages active and flexible learning where the teacher is a monitor and guide to the learning process.

The research on the effectiveness of these newly designed online constructivist courses has yet to start. However, the two involved researchers (SH and WvM) feel

that the experiences of the teachers and participants are encouraging. We observed that the teachers see the desired competence development in the participants. Furthermore, after finishing a course, the participants evaluate the learning process and results informally and qualitatively in a positive way. And finally, we see that the participants rate the newly designed courses as good to very good.

These experiences with the framework of Collis and Moonen (2001) at the Maastricht UMC+ seem to indicate that this instructional design model may also be a good candidate for the design of an online constructivist course for officers.

The Design of an Online Constructivist Course for Officers

In the Civil-Military Interaction Command of the Royal Netherlands Army, there is a need for a Good GOV course, especially for (but not limited to) civil-military cooperation (CIMIC) functional specialists. Due to multidimensional military operational settings and the necessity of location-independent education, this introduction course must be constructivist by nature and online. That is why we applied the flexibility-activity framework of Collis and Moonen (2001) examined above to create the online constructivist Good GOV course.

The learning objectives of the Good GOV course are to get a general overview of the NATO CIMIC doctrine (NATO, 2018), to gain insight into the theoretical framework of good governance of this NATO doctrine, and to learn to apply the element of good governance of the doctrine to actual military situations. Three researchers (SH, PN, and JH) designed this course according to the three-phase flexibility-activity framework of Collis and Moonen (2001). In the following sections, we detail the before phase, the focal event, and the after phase of the Good GOV course. All learning activities will take place in a protected online learning environment.

Before Phase (Preparation for Class)

In the before phase, the focus is on flexibility and knowledge acquerment. The flexibility concerns location, time, and content. The participants search for literature about civil-military interaction (CMI), CIMIC, governance, and good governance. They refer to self-found online publications, where they explain why these publications are good sources on the subject. Subsequently, we provide references to online publications, among others, Allied Joint Publication 3.19, *Allied Joint Doctrine for Civil-Military Cooperation* (NATO, 2018). Participants look up, think about, and discuss definitions, assumptions, principles, theories, and models concerning CMI, CIMIC, governance, and good governance. Herein, analysis methodologies such as PMESII (political, military, economic, social, information, infrastructure) and AS-COPE (areas, structures, capabilities, organizations, people, events) play a crucial

Table 1

The Before Phase of the Flexibility-Activity Framework of Collis and Moonen (2001) Applied to the Good GOV Course

Phase	Learning activities of participants	Questions and assignments
Before phase	1. Searching for literature 2. Referring to self-found online publications 3. Studying self-found literature 4. Explaining the quality of self-found literature 5. Studying requiered literature	a. Add a reference to a new source on good governance and substantiate why you think this reference is of added value. b. What is the interpretation of NATO regarding good governance? What do you think of this interpretation? Argue why you think this interpretation is too broad or too narrow. What elements could you add to this interpretation? If necessary, use information from your references. c. What are the strengths of the PMESII model? What are the weaknesses of the PMESII model? And what about the ASCOPE model? What are its strengths and weaknesses? Which model do you prefer? Explain your preference.

role. This way, the participants get to know different perspectives and form their own opinions. In Table 1, we list the learning activities of the participants. We also include some questions and assignments typical of the before phase.

Focal Event (Class)

During the focal event, we reduce the flexibility in time and content. In addition, the focus shifts from knowledge acquirement to knowledge contribution. Again, we refer to online publications such as "Good Governance & CIMIC. A CCOE Fact Sheet" (Civil-Military Cooperation Centre of Excellence, n.d.). The participants look up, think about, and discuss the usability and practical relevance of different analysis methodologies for military operations. The participants also reflect on their role and responsibility in military missions. Then, two experts in civil-military cooperation both give a live lecture about CIMIC, CMI, governance, and good governance. These experts also provide feedback on the results of the previous assignments.

Table 2

The Focal Event of the Flexibility-Activity Framework of Collis and Moonen (2001) Applied to the Good GOV Course

Phase	Learning activities of participants	Questions and assignments
Focal event	1. Studying required literature	a. Select a current crisis area together with another participant. Perform analysis with the ASCOPE model. You can leave unknown elements open or fill them in fictitiously.
	2. Discussing required literature	
	3. Reflecting on their own role and responsibility	b. What are crucial success factors to accomplish good governance in a mission area? How do you respond to this during a mission?
	4. Attending required lectures	
	5. Applying guidelines and models to real-life cases	c. Based on your expertise, what contribution can you make here to good governance?
	6. Clarifying their own role and responsibility	

The questions and assignments during the focal event are less flexible regarding the content. The participants need to work with provided references to online sources. The emphasis is increasingly on knowledge contribution; that is, applying guidelines and models to actual operational situations, and further, clarifying their role and responsibility. Again, the participants learn different perspectives and form their opinions. However, this time they act on their views too. In Table 2, we describe the learning activities of the participants. We mention some questions and assignments typical of the focal event as well.

After Phase (Completion of Class)

In the after phase, the focus is again on flexibility (location, time, and content) and knowledge contribution. The participants apply their new knowledge, skills, and attitude to real-life cases. Herein, they must detail their approach and role concerning good governance in a military operational setting. Furthermore, the participants collaborate and give each other feedback. The final assignment is about reflection. In this assignment, the participants describe an authentic case from military practice, their approach before the Good GOV course, and their approach afterward. The difference between

Table 3

The After Phase of the Flexibility-Activity Framework of Collis and Moonen (2001) Applied to the Good GOV Course

Phase	Learning activities of participants	Questions and assignments
After phase	1. Applying new knowledge, skills, and attitude to real-life cases 2. Detailing their own approach and role 3. Collaborating with peers 4. Giving feedback on contributions of peers 5. Describing an authentic case, and reflecting on their own approach before the course, and their approach afterward 6. Providing feedback on reflection to peers	Describe a military operational setting from your experience concerning good governance. In this reflective assignment, explain how you would have done it before and how you would do it now, and explain the difference (maximum 1000 words).

their approach before and after the course makes the individual learning output explicit and visible. Regarding the final assignment, each participant provides extensive feedback on the work of at least one other participant. In Table 3, we describe the learning activities of the participants. We also mention an assignment typical of the after phase.

Discussion

We designed an online constructivist learning environment about the military knowledge domain of good governance using an instructional design already practiced in the medical field. The design of the Good GOV course is based on the three phases of the flexibility-activity framework of Collis and Moonen (2001). Under the guidance of a teacher and in collaboration with other partic-

ipants, all the participants must construct their view on reality and take their position, based upon many perspectives, interpretations, and uncertainties, and solve real-life problems.

The actual design of the Good GOV course was the necessary first step. The stages that must follow are the technical implementation, running, and evaluation of the effectiveness of this course. In the following sections, we share some thoughts about evaluating military education.

We suggest using the four levels of evaluation model of Kirkpatrick and Kirkpatrick (1994) to evaluate military education. First, at level 1, we evaluate the participants' experience with a course. At level 2, we evaluate the participants' performance within the educational setting. Further, at level 3, we evaluate the participants' performance in the military operational setting. Finally, at level 4, we evaluate the extent to which the course contributes to the objectives of the military operation.

The evaluation of education is often limited to level 1 (e.g., did the participants appreciate and value the intervention) and level 2 (e.g., did they succeed in showing the desired performance in class). Although it is relevant to include these two levels of evaluation, it is essential to transcend these lower levels. In the end, it matters the most whether the participants can apply the new knowledge, skills, and attitude in an authentic setting (level 3) and whether a military operation benefits from that (level 4). The evaluation of military education, including the Good GOV course, should cover all four levels of evaluation of Kirkpatrick and Kirkpatrick (1994).

Conclusions and Recommendations

Online constructivist officer education is an advantageous instructional strategy to prepare officer cadets and officers for their demanding jobs. The design of the Good GOV course, as an example of online constructivist officer education, shows how the military can employ an instructional design commonly used in another field to improve military education. Further exploration and research are required to answer the question of how military education can reap the benefits of learning sciences and take advantage of the learning experiences of other professions and organizations. ෴

Acknowledgements

References

Bannan, B., Dabbagh, N., & Walcutt, J. J. (2020). Instructional strategies for the future. *Journal of Military Learning, 4*(1), 68–80. https://www.armyupress.army.mil/Journals/Journal-of-Military-Learning/Journal-of-Military-Learning-Archives/April-2020/Walcutt-Instruct-Strategy

Bower, M. (2017). *Design of technology-enhanced learning: Integrating research and practice*. Emerald Publishing.

Bruner, J. (1990). *Acts of meaning*. Harvard University Press.

Civil-Military Cooperation Centre of Excellence. (n.d.). *Good governance & CIMIC. A CCOE fact sheet.* https://www.cimic-coe.org/resources/fact-sheets/ccoe-fact-sheet-good-gervernance-and-cimic.pdf

Collis, B., & Moonen, J. (2001). *Flexible learning in a digital world: Experiences and expectations*. Kogan Page.

Dennick, R. (2016). Constructivism: Reflections on twenty-five years teaching the constructivist approach in medical education. *International Journal of Medical Education, 7*, 200–205. http://dx.doi.org/10.5116/ijme.5763.de11

Elahi, K. Q. I. (2009). UNDP on good governance. *International Journal of Social Economics, 36*(12), 1167–1180. https://doi.org/10.1108/03068290910996981

Ellis, S. B., Warden, C. H., & Brown, H. Q. (2021). Transitioning from instructor-centered to student-centered learning. Case study of the US Air Force technical training organizations. In S. Hoidn & M. Klemenčič (Eds.), *The Routledge international handbook of student-centered learning and teaching in higher education* (pp. 424–444). Routledge.

Elshamy, K. (2017). Cultural and ethical challenges in providing palliative care for cancer patients at the end-of-life. *Palliative Medicine and Hospice Care, SE*(1), S75–S84. http://dx.doi.org/10.17140/PMHCOJ-SE-1-116

Ertmer, P. A., & Newby, T. J. (2013). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective. *Performance Improvement Quarterly, 26*(2), 43–71. http://dx.doi.org/10.1002/piq.21143

Frank, J. (2004). The CanMEDS Project: The Royal College of Physicians and Surgeons of Canada moves medical education into the 21st century. In H. B. Dinsdale & G. Hurteau (Eds.), *The evolution of specialty medicine, 1979-2004* (pp. 187–211). Royal College of Physicians and Surgeons of Canada.

Harasim, L. M. (2017). *Learning theory and online technologies* (2nd ed.). Routledge. https://doi.org/10.4324/9781315716831

Hornstra, S. P. A. (2021). De officiersopleiding en het multi-interpretabel wereldbeeld: Stimulus-respons reacties, cognitieve processen en meerdere perspectieven [Officer education and the multi-interpretable worldview: Stimulus-response reactions, cognitive processes and multiple perspectives]. *Militaire Spectator, 190*(11), 568–579. https://www.militairespectator.nl/thema/artikel/de-officiersopleiding-en-het-multi-interpretabel-wereldbeeld

Jansen, M. M. (2019). *Educating for military realities* [Doctoral dissertation, Radboud University Nijmegen]. https://www.faculteitmilitairewetenschappen.nl/file/download/55599316/dissertation_marenne-jansen.pdf

Karagiorgi, Y., & Symeou, L. (2005). Translating constructivism into instructional design: Potential and limitations. *Educational Technology & Society, 8*(1), 17–27.

Kenyon, P. (2020). U.S. Army training and doctrine command virtual learning. *Journal of Military Learning, 4*(2), 91–96. https://www.armyupress.army.mil/Journals/Journal-of-Military-Learning/Journal-of-Military-Learning-Archives/October-2020/Kenyon-Virtual-Learning

Kirk L. M. (2007). Professionalism in medicine: Definitions and considerations for teaching. *Baylor University Medical Center Proceedings, 20*(1), 13–16. https://doi.org/10.1080/08998280.2007.11928225

Kirkpatrick, D. L., & Kirkpatrick, J. D. (1994). *Evaluating training programs: The four levels* (3rd ed.). Berrett-Koehler Publishers.

Kitzen, M. (2019). The Netherlands' lessons. *Parameters, 49*(3), 41–53. https://press.armywarcollege.edu/parameters/vol49/iss3/6

Mukhalalati, B. A., & Taylor, A. (2019). Adult learning theories in context: A quick guide for healthcare professional educators. *Journal of Medical Education and Curricular Development, 6*, 1–10. https://doi.org/10.1177/2382120519840332

Mayer, R. E. (2009). Constructivism as a theory of learning versus constructivism as a prescription for instruction. In S. Tobias & T. M. Duffy (Eds.), *Constructivist instruction: Success or failure?* (pp. 184–200). Routledge.

NATO. (2018). *Allied joint doctrine for civil-military cooperation* (Allied Joint Publication 3.19, Edition A Version 1). https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757080/20181112-dcdc_doctrine_nato_cimic_ajp_3_19.pdf

Phillips, D. C. (1995). The good, the bad, and the ugly: The many faces of constructivism. *Educational Researcher, 24*(7), 5–12. https://doi.org/10.3102/0013189X024007005

Savery, J. R., & Duffy, T. M. (1995). Problem-based learning: An instructional model and its constructivist framework. *Educational Technology, 35*(5), 31–38.

Sookermany, A. M. (2017). Military education reconsidered: a postmodern update. *Journal of Philosophy of Education, 51*(1), 310–330. https://doi.org/10.1111/1467-9752.12224

Tam, M. (2000). Constructivism, instructional design, and technology: Implications for transforming distance learning. *Educational Technology & Society, 3*(2), 50–60.

U.S. Department of the Army. (2017). *The U.S. Army learning concept for training and education 2020-2040* (TRADOC Pamphlet 525-8-2). U.S. Army Training and Doctrine Command. https://admin-pubs.tradoc.army.mil/pamphlets/TP525-8-2.pdf

Van der Spoel, I., Noroozi, O., Schuurink, E., & Van Ginkel, S. (2020). Teachers' online teaching expectations and experiences during the Covid19-pandemic in the Netherlands. *European Journal of Teacher Education, 43*(4), 623–638. https://doi.org/10.1080/02619768.2020.1821185