AG12 Lesson Plan Critique

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"You learn more about a person in an hour of play than in a year of conversation"

-- Anonymous

Introduction

Managers and executives attend "AG12: Leading the Agile Enterprise" (AG12) to learn how to enhance the agility of their organization. They want to create a learning organization that can deliver more innovative solutions, more quickly and with higher quality. This is a tough task and an equally tough audience. The students are pressed for time, they have strong opinions, habits and experiences, and they are comfortable driving discussions. The attendees "…are not empty vessels waiting to be filled, but rather active organisms seeking meaning" (Driscoll, 2005, p.387).

AG12 requires students to know agile development. This provides the foundation to learn the implications of agile beyond development and how agile at scale impacts leadership and the larger organization. Agile operating at a team level is much simpler than trying to adopt the mindset, values and principles across an entire organization. Organizations adopting agile "…are deliberately designing the whole organization around agile, everything from how the workplace is designed with open spaces even for the most senior leadership, to the rewards system, to assessments, to their recruitment, learning and development, and their communications processes" ("Has Agile Management's", 2017).

Critique Overview

Appendix A offers a post-critique, updated AG12 outline. The original AG12 outline is presented in Appendix B. In its original form, AG12 has class, group and individual exercises. Each exercise concludes with a class discussion to drive reflection and sharing. In addition, students capture notes and answer questions in an AG12 Student Workbook. Further support is provided via hints, tips and guidance in the student guide and handouts. Student feedback from

past deliveries of AG12 provided very positive comments about the group exercises

(collaborating, sharing and learning with colleagues) and the "Delegation Poker[1]" game.

   This critique incorporates three perspectives:

1. **Bloom's Taxonomy**: The Taxonomy provides a model to evaluate and update the course

    objectives and provides a basis for assessment.

2. **Vygotskian / Sociocultural**: AG12 discusses organizational culture, collaboration, and

    the creation of a learning organization. Vygotsky's views on social learning and culture

    provide an interesting and relevant lens for the critique.

3. **Gaming**: As an educator, gaming derived strategies and approaches that enhance

    engagement, provide opportunities to practice, and magnify learning are appealing.

Bloom

   Unfortunately, Bloom's Taxonomy was not consulted during the creation of AG12.

AG12 should be updated to reflect a thoughtful application of Bloom's Taxonomy. AG12's

learning objectives used the verbs: "Assess", "Apply", "Discuss", "Describe", and "Select".

Without an underlying framework and structure, no one associated with the course can ascertain

whether it is better or more meaningful to be able to "Apply" rather than "Assess." Upon

consulting Bloom's Taxonomy, we see that many of the verbs used in the objectives align with

the lower-order thinking levels. AG12 is not alone in having these shortcomings as:

   "Almost always, these analyses have shown a heavy emphasis on objectives requiring

   only recognition or recall of information, objectives that fall in the Knowledge category.

   But, it is objectives that involve the understanding and use of knowledge, those that

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[1] Delegation Poker is a game created by Juergen Appelo. An explanation of the game can be found at:
https://management30.com/product/delegation-poker/

would be classified in the categories from Comprehension to Synthesis, that are usually

considered the most important goals of education" (Krathwohl, 2002, p. 212).

There is also a disconnect between the learning objectives, items in the course topics and the

course content. The exercises found within AG12 ask students to compare, create, critique, and

compare; reflecting tasks that map to higher-order thinking. Consistently aligning the learning

objectives and course content with Bloom's Taxonomy would provide better opportunities for

elaboration which is "…key to permanently storing information in a way that facilitates its quick

retrieval when it is needed" (Lutz & Huitt, 2003, p.15).

The revised outline includes new and improved objectives and activities using verbs

focused on higher-order thinking, including: critique, debate, design, detect, devise, plan, rank,

and summarize.

Vygotskian / Sociocultural

Vygotsky offers tools and ideas such as the zone of proximal development (ZPD), social

learning, culture, self-regulation, and the importance of language (Schunk, 2012, p.243). Further,

"Central to the task of educators and psychologists is conceiving of our work as a system rather

than a set of isolated activities" (John-Steiner & Mann, 1996, p.204). This aligns with the reality

of a complex enterprise environment comprised of systems of systems, social interactions and its

own culture.

Social learning plays a significant role in AG12. Exercises and discussions occur both at

a class and group level; students learn with and from their peers and the instructor. The course

exercises, discussions and examples are connected to the culture and context of the organization

as the course is delivered privately at the client's facilities. This is particularly important as

"…learners bring their own understandings to social interactions and construct meanings by integrating those understandings with their experiences in the context" (Schunk, 2012, p. 244).

While "…scaffolding is not a formal part of Vygotsky's theory…. It does, however, fit nicely within the ZPD" (Schunk, 2012, p. 246). Scaffolding within AG12 includes instructor guidance, peer collaboration, and many hints, tips and examples.

A concerning aspect of AG12 is that there is too much time spent in lecture. The concept of "sage on a stage" is incompatible with a Vygotskian perspective as it reduces the amount of time available to the student for knowledge construction. The AG12 outline has been updated to reduce the amount of lecture and increase the use of games and play. "Games and play are an essential part of child development" (Young et al, 2012, p.63). In introducing more games and play the goal is to drive peer-based learning, support the ZPD, and the co-creation of learning. "According to Vygotsky (1978), play creates a broad ZPD, both in cognitive and socioemotional development. In make-believe play, children perform above their own cognitive abilities-logical thinking, memory, and attention" (Annetta, 2010, p.110).

Gaming

"The popularity of video games is not the enemy of education, but rather a model for best teaching strategies. Games insert players at their achievable challenge level and reward player effort and practice with acknowledgement of incremental goal progress, not just final product. The fuel for this process is the pleasure experience related to the release of dopamine" (Willis, 2011, p.1). Gaming provides us an approach to build upon Bloom and Vygotsky to deliver a better learning experience.

"However, just as students are not given books and told to learn independently, games cannot succeed as stand-along solutions to education; there must be a facilitator present

to guide learn and ensure (a) that the information being taught is indeed generalizable outside the context of the game and (b) that deeper, metacognitive gains are attained as a result of socially constructed game play" (Young et al, 2012, p. 63).

An interesting experiment would be to reconstruct AG12 as a day-long game in the spirit of offerings such as "The Phoenix Project: A Business Simulation[2]", "G2G3 DevOps Simulation[3]", or "Lego4Scrum[4]". "There is however, one condition to this and that concerns the way games are performed. Only when games are well prepared, well executed and well evaluated, will the intended effects and impacts of the games be realized" (Dieleman & Huisingh, 2006, p.845).

In the future, converting the entire course to a single game should use a framework such as RETAIN, EGDF, I's, or TLT that are based on the work of Bloom, Vygotsky and others (dos Santos & Fraternali, 2015, p.6). However, for this critique and timeframe that would be a step too far. "Bargain bins in software stores attest to the difficulty in designing appealing and instructionally sound computer games" (Garris, Ahlers & Driskell, 2002, p.442). However, in the near term, there are gains to be had by:

1. Introducing additional games into AG12 such as: "Moon Ball", "Circles in the Air", "Thumb Wrestling" (Sweeney and Meadows, 2010) and "Impact Trump Cards[5]" to support self-analysis, communications and collaboration and systems thinking (Dieleman & Huisingh, 2006, p.842).

2. Using lessons learned from gaming to improve the flow of the course. "What we can do is be aware of the reason the brain is so responsive to video game play and keep

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[2] http://www.gamingworks.nl/business-simulations/the-phoenix-project/
[3] http://g2g3.com/blog/simulations/#DevOps%20Simulation
[4] https://www.lego4scrum.com
[5] The Impact Trump Cards game is described at: https://github.com/impactmapping/open-impact-mapping-workshop/tree/master/facilitation-games/impact-trump-cards

achievable challenge and incremental progress feedback in mind when planning units of instruction" (Willis, 2011, p.3).

Conclusion

The updated AG12 outline reflects use of Bloom's Taxonomy, use of Vygotsky's ZPD, socialization, context, co-construction, and game-based play. Taking inspiration from Agile and its philosophy of "inspect and adapt", an ideal next step would be to update the course based on this critique and get feedback from students, assess the impact of the delivery and then introduce further improvements. In parallel, further thought and research should occur related to the idea of transitioning to a half- or full-day "Agile Leadership" gaming experience with a minimum amount of lecture.

Appendix A: Updated (and Improved!) Lesson Plan

AG12 Leading the Agile Enterprise

COURSE ABSTRACT

There's a growing chasm between those who can quickly respond to change, innovate at scale and leverage Information Technology (IT) as a competitive differentiator, and those that cannot. Successfully making the leap is a challenge, requiring an organization to transform its culture, enhance business-IT alignment, and adopt Agile across the enterprise. In such a transformation, leadership is critical. Traditional leadership practices must be radically changed to succeed as an Agile Enterprise. During this course, participants will learn about the obstacles, challenges and pitfalls that lay ahead. They will learn about strategies and techniques to overcome these challenges. And, in completing the course, participants will become better leaders of thought and action in driving organizational change and enabling their teams to thrive.

This course includes a combination of lecture, discussions, games, debates, and exercises.

AUDIENCE

This course is designed for leaders about to begin or currently invested in an Agile transformation.

PREREQUISITES

Ability to plan and execute agile development projects in accordance with:
- Agile Manifesto including Agile Values and Principles (http://agilemanifesto.org)
- Scrum Guide (http://www.scrumguides.org)

DURATION

1 Day

LEARNING OUTCOMES

Upon successful completion of this course, participants will be able to:
- Critique the agile capabilities of the enterprise.
- Detect transformation barriers.
- Devise an approach to align Business and IT.
- Plan the creation of an agile culture using an organizational design framework.
- Critique leadership approaches to delivering business outcomes.
- Design a collection of tactics to quickly generate momentum in your Agile transformation.
- Design an agile enterprise.

COURSE TOPICS

The Agile Enterprise: Think Big
Exercise: Summarize your Vision
Reasons for Adopting Agile
Exercise: Design an Agile Bumper Sticker!
Agile Beyond Scrum
The Role of Leaders
Agile Beyond the Team, the Basic Roles, and the Layers
Exercise: Evaluate your Organization's Agility
Game: Moon Ball

Business Value: How do you know it's valuable?
Business IT-Alignment
Team Debate: What is Business Value?
Goals and Impacts
Impact Mapping
Which Deliverables?
Earn or Learn!
Small Batches
Game: Impact Trump Cards
Exercise: Develop an Impact Map

Creating an Agile Culture: What's possible in your organization?
Exercise: Rank your Organization's Culture
Culture and Agile Alignment
Game: Thumb Wrestling
Leading Cultural Change
Exercise: Design Future State using the Star Model

Lead Different: Developing Agile Leaders
Game: Circles in the Air
Agile Lingo
Leadership Styles
Exercise: Evaluate *Your* Leadership Style
10 Things Agile Leaders Should Do Differently
Game: Delegation Game

Getting Tactical: Generate Momentum with Tactics
A Menu of Tactics
Team Debate: What's the "Best" Tactic
Remember to Measure

Moving Toward Your Vision: How do we get from our current state to our future state?
Confronting Current Reality
Exercise: Review and Prioritize the Backlog
Shu Ha Ri
Introducing LEAP[4]Agility
Exercise: Write a Story: Remember the Future

COURSE CODE

AG12

Appendix B: Original Lesson Plan

AG12 Leading the Agile Enterprise

COURSE ABSTRACT

There's a growing chasm between those who can quickly respond to change, innovate at scale and leverage Information Technology (IT) as a competitive differentiator, and those that cannot. Successfully making the leap is a challenge, requiring an organization to transform its culture, enhance business-IT alignment, and adopt Agile across the enterprise. In such a transformation, leadership is critical. Traditional leadership practices must be radically changed to succeed as an Agile Enterprise. During this course, participants will learn about the obstacles, challenges and pitfalls that lay ahead. They will learn about strategies and techniques to overcome these challenges. And, in completing the course, participants will become better leaders of thought and action in driving organizational change and enabling their teams to thrive.

This course includes a combination of lecture, discussions, and exercises.

AUDIENCE

This course is designed for leaders about to begin or currently invested in an Agile transformation.

PREREQUISITES

Ability to describe Agile basics including:
- Agile Manifesto including Agile Values and Principles (http://agilemanifesto.org)
- Scrum Guide (http://www.scrumguides.org)

DURATION

1 Day

LEARNING OUTCOMES

Upon successful completion of this course, participants will be able to:
- Assess the organization to identify Agile capabilities and transformation barriers.
- Apply approaches to align Business and IT.
- Discuss an organizational design framework for building an Agile culture.
- Describe leadership approaches to delivering business outcomes.
- List, describe, and select tactics that quickly generate momentum in your Agile transformation.
- Apply an Agile mindset when transforming the enterprise.

COURSE TOPICS

The Agile Enterprise: Think Big
Reasons for Adopting Agile
Exercise: Lean and Agile Thinking
Agile Beyond Scrum
The Role of Leaders
Agile Beyond the Team, the Basic Roles, and the Layers
Exercise: Agile Assessment

Business Value: How do you know it's valuable?

Exercise: What is Business Value?
Business IT-Alignment
Defining Business Value
Goals and Impacts
Impact Mapping
Which Deliverables?
Earn or Learn!
Small Batches
Exercise: Impact Mapping

Creating an Agile Culture: What's possible in your organization?
Organizational Culture Assessment
Culture and Agile Alignment
Leading Cultural Change
Current State? Future State?

Lead Different: Developing Agile Leaders
Agile Lingo
Leadership Styles
Exercise: Self Reflection
10 Things Agile Leaders Should Do Differently
Exercise: Delegation Game

Getting Tactical: Generate Momentum with Tactics
Selecting Tactics
Learn from Peers
Exercise: Tactics to Reach Goals
Remember to Measure

Moving Toward Your Vision: How do we get from our current state to our future state?
Confronting Current Reality
Exercise: Review and Prioritize the Backlog
Shu Ha Ri
Introducing LEAP[4]Agility
Exercise: Remember the Future

COURSE CODE

AG12

References

Annetta, L. A. (2010). The "I's" have it: A framework for serious educational game design. *Review of General Psychology*, *14*(2), 105.

Dieleman, H., & Huisingh, D. (2006). Games by which to learn and teach about sustainable development: exploring the relevance of games and experiential learning for sustainability. *Journal of Cleaner Production*, *14*(9), 837-847.

dos Santos, A. D., & Fraternali, P. (2015, December). A comparison of methodological frameworks for digital learning game design. In *International Conference on Games and Learning Alliance* (pp. 111-120). Springer International Publishing.

Driscoll. M.P. (2005). *Psychology of Learning for Instruction* (pp. 384-407; Ch. 11 – Constructivism). Toronto, ON: Pearson.

Garris, R., Ahlers, R., & Driskell, J. E. (2002). Games, motivation, and learning: A research and practice model. *Simulation & gaming*, *33*(4), 441-467.

Has Agile Management's Moment Arrived? (2017, August 1). Retrieved August 12, 2017, from http://knowledge.wharton.upenn.edu/article/agile-managements-moment-arrived/

John-Steiner, V., & Mahn, H. (1996). Sociocultural approaches to learning and development: A Vygotskian framework. *Educational psychologist*, *31*(3-4), 191-206.

Krathwohl, D. R. (2002). A revision of Bloom's taxonomy: An overview. *Theory into practice*, *41*(4), 212-218.

Lutz, S., & Huitt, W. (2003). Information processing and memory: Theory and applications. *Educational Psychology Interactive*, 1-17.

Schunk, D. H. (2012). *Learning theories: An educational perspective* (6th ed.). Upper Saddle River, NJ: Pearson.

Sweeney, L. B., & Meadows, D. (2010). *The systems thinking playbook: Exercises to stretch and build learning and systems thinking capabilities*. Chelsea Green Publishing.

Willis, J. (2011, April 14). A Neurologist Makes the Case for the Video Game Model as a Learning Tool. Retrieved August 12, 2017, from https://www.edutopia.org/blog/neurologist-makes-case-video-game-model-learning-tool

Young, M. F., Slota, S., Cutter, A. B., Jalette, G., Mullin, G., Lai, B., ... & Yukhymenko, M. (2012). Our princess is in another castle: A review of trends in serious gaming for education. *Review of educational research*, *82*(1), 61-89.