PDW Title: Using Cynefin Domains to Prepare Graduates for Complex, Chaotic, or Confusing Situations

Abstract: This PDW reviews experiential activities that simulate different contexts (clear, complicated, complex, and chaotic) and equip students with sensemaking heuristics based on the Cynefin model. The intent of doing so is to help students diagnose the type of situation they are in and understand the knowledge needed in order to take action. This skill combined with (simulated) exposure to the domains via experiential learning better prepares business graduates to face such contexts and anticipate the confusion and discomfort they produce.

Keywords: Cynefin model, experiential activities, management education

Introduction

Classrooms have layers of power and networks of relationships that are taken for granted and mostly invisible to participants. A normalising process over years has habituated us to performing in these contexts in ways that we do not question. The Cynefin model (Snowden & Boone, 2007) indicates that such habits ensure that knowledge about how to behave in conventional classrooms is familiar and 'clear' with 'Orderliness' as the operational mode. Such conventional spaces– including lectures and tutorials – and attendant habits enable knowledge transmission through balanced and orderly two-way communication in relatively comfortable and secure surroundings. This is true whether faculty are the 'sage on the stage' or the 'guide by the side.' Use of experiential activities may support learning and performance within more complicated domains, but the design and oversight of these learning experiences by instructors creates a relatively 'safe' classroom setting for the activity within a larger academic comfort zone.

However, working conditions for our graduates are seldom as orderly, comfortable and secure as our classrooms. Graduates may quickly find themselves faced with situations that are anything but orderly and familiar. Most classroom experience are unlikely to help students understand the nature of complex or chaotic situations nor readily help them to choose appropriate ways to act within each environment. In such unorderly conditions graduates will encounter external forces – and sometimes internal ones – making demands on them that may not be congruent with the capabilities and knowledge acquired during their time in the balanced and familiar conditions of higher education.

In 2020 the sensemaking framework known as the Cynefin Domains of Knowledge (see Figure 1) celebrated its 21st birthday. Since its first public appearance in 1999 it has become widely known for its effectiveness in delineating among five domains of knowledge using an unpretentious but powerful set of heuristics to help guide decision making in

difference contexts. It proposes knowledge as operating quite differently within situational environments characterized as clear, complicated, complex, chaotic, and confusing (i.e., the "domains") and offers heuristics for navigation through the modes of data, information and knowledge.

This PDW introduces a way to create student awareness of the domains and the heuristics that can guide them through sensemaking and action. This awareness builds on the understanding that each domain represents a distinctly different context each requiring a specific approach to achieving effective learning for guiding action. After giving an overview of the model, we will introduce a sample of classroom activities that illustrate the heuristics applicable to the various domains. An understanding of the model and the significance of the specific heuristics can help professional educators introduce into their teaching spaces learning conditions that more closely replicate the conditions into which we will discharge our graduates.

The **intended audience** is faculty in higher education who are preparing students to manage in a world that is not as routine and predictable as are most classroom experiences. Intellectually, educators know the importance of preparing students to recognize whether business situations and problems are routine, are complicated but known, are complex but understandable, are novel, or are confusing and not immediately resolvable. However, doing so in practice requires introducing unsettling routines and upsetting habits, which – in turn – can lead to student resistance and even student-faculty conflict. The PDW will focus on the creation of effective learning experiences through use of the Cynefin model and heuristics to replicate conditions of complication, complexity confusion, and chaos (clear situations being the norm of higher education). It will not focus on teaching about the model, but will address the very real challenges that unfamiliar conditions can create for the student-teacher dynamic and student efficacy.

Learning Objectives, Engagement, & Takeaway.

Learning Outcomes. By the end of this session, participants:

1. will understand the Cynefin model of domains of knowledge

2. will be able to argue the case for student participation in learning activities that more closely mirror future real-world experiences

3. will be aware of and more able to effectively address potential student pushback and resistance to learning opportunities that fall outside the simple and complicated domains; and

Engagement. The anticipated flow of a 90-minute PDW is:

Introductory activity and Introductions (20 minutes). Participants will immediately engage in a short experiential activity (simulation) that models a shift in classroom practices. Debriefing comments about the key features of that activity will introduce the topic of the domains and participant reactions to learning activities in certain domains. Introductions will be made.

Overview of Cynefin domains (10 minutes). We will overview the model and the benefits of embedding it into management education through experiential learning. They will discuss the gap between the information provided by current exercises and the capabilities that graduates need to be prepared to handle themselves within complex or chaotic situations. Several vignettes will illustrate its domains. Popular experiential learning activities will be mapped onto the domains.

Modified activity and debriefing (40 minutes). Participants will engage in a second short simulation that demonstrates another Cynefin domain in an experiential manner. The activity will be truncated to allow for debriefing and to discuss student resistance and problems adjusting to experiential activities in these domains. We will briefly describe the challenge of requiring students to jump directly into complex situations, which can cause

them to feel off kilter. We'll provide examples of how some students accept the challenge and move forward with guidance while other students resist and flail. It is vital that educators are prepared for pushback to experiential activities operating in the complex and chaotic domains and have a plan for debriefing these reactions as demonstrative of reactions in real world situations.

Review of activities in other domains (20 minutes). This conference session is too brief to have participants fully engage in an experience simulating a really Complex or Chaotic activity. So, this portion of the session will be a Walk-through" of the steps for additional activities related to specific Cynefin domains (handout). Participants will be encouraged to suggest how they might adapt their own experiential activities to move students through the Cynefin domains in such a way that they are more able to recognise what specific domain they are experiencing, how to approach it, and build robust links between these activities and future expectations of their workplaces to handle situations in similar domains.

Takeaway. Participants understand the need to create classroom experiences that expose students to complex, complicated, and chaotic environments and the heuristics that can guide sensemaking and action. Participants will experience some experiential activities and learn about others that they can adopt for use in their own classrooms. Supporting handouts will be provided. They will also learn about the possible pushback and reactions when students encounter experiential activities far outside their comfort zones.

PDW Overview.

When we encounter a new situation, we gather data to understand it and determine how to react or act. The Cynefin model (Kurtz & Snowden, 2003; Snowden, 2010; Snowden & Boone 2006) is a sensemaking framework that explains how the knowledge needed is specific to contextual characteristics. This aligns with educational concepts of constructivism

in its emphasis on the environment as a key factor in shaping our understanding of how to act and – importantly - how to approach the process of learning and taking action in each of four distinctly different types of context (Snowden & Boone, 2007).

On the right side of the model (Figure 1) are two domains identified as 'Clear' and 'Complicated'. The former is familiar and indicative of orderly contexts that easy to comprehend. The latter is less easy to comprehend without help such as the aid of experts, but it operating within orderly constraints. Things become less easy to comprehend once the context crosses the liminal space as indicated in the figure as moving from the right to the left side of the model. The 'Complex' domain is when things are no longer orderly, and expertise will not necessarily be helpful, since the knowledge required to operate effectively may well have to be generated while addressing the challenges. Thus, the efficacy of possible solutions cannot be assessed until implemented. The fourth domain is 'Chaotic' and requires action (almost) before thought. One must accept that situational conditions are *novel* with no known precedents. Finally, the central space 'AC' (for 'Aporea [puzzlement] / Confused') highlights the reality that not all conditions can be resolved. It is an emphatic reminder that sometimes knowledge cannot be acquired ahead of time and a successful state of mind requires embracing contradictions rather than trying to enforce tidily integrated solutions (Snowden 2020).

All five domains need specific understanding of information and knowledge in context, and together highlight the importance of flexible movement among domains skilfully applying the heuristic specific to each one (Snowden & Boone, 2007). That is not an easy or simple process. Educators are in a position to select or design action-oriented learning environments relevant to learners' proximal zones of development (Vygotsky, 1980). For students and educational administrations who believe that structured learning environments best enable learners to reach their potential (Witheford, 2019), experiential

activities that replicate complex or chaotic situations can appear unstructured and even haphazard, even when principles of developmental learning are proposed. However, such a rationale often does not resolve the difficulties of bringing complex conditions into familiar formal and structured classroom environments that encourages dependency in learners.

Wilfred Bion's (Armstrong, 2005) concept of basic assumptions that influence group dynamics established three ways in which human beings can respond when engaging with new groups or contexts. The basic assumption of dependency helps explain why classrooms are so often ordered and familiar. There is a leader in the room (i.e., the teacher) and everyone else is a student for whom the context provides guidance on how to act. If the leader is not evident – not there to be depended on for instructions (or present but indicating an intention to stand aside in some way) – students may fall into what Bion identified as 'fight or flight' mode. That felt need for a leader is strong and any changes in that familiar teacher-as-leader role can unsettle the group's basic assumption of dependency. Making changes in the setting, such as reducing or withdrawing leadership or transferring it via some mode of self-responsibility, can do just that. Similarly, teachers and educators who are comfortable in the leader role may also be reluctant to unsettle nicely balanced teaching environments. Choosing to do so involves understanding (implicitly or explicitly) what benefits are to be gained from the change, and also that there are many effective ways of making the transition and discernible educational benefits for doing so.

The growing disconnect between university modes of providing knowledge and workplace expectations of graduates' capacity to operate in volatile, uncertain, complex and ambiguous conditions makes it likely that academic educators will be facing increasing demands to help students learn to operate effectively in that uncertain future.

References

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Figure 1 Cynefin domains of knowledge (Snowden, 2020)