

ASSIGNMENT 3: ANALYSIS PARALYSIS DESIGN NOTE

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LRNT527: Creating Digital Resources

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In reviewing several options regarding creating a digital learning resource based on my interest and experience, I found myself stuck between three very different options. This situation, described by Kurien et al. (2014) as Analysis Paralysis, was the overthink or overanalysis of a situation that leads to inaction. Reaching out to others via Facebook and a Google Forms questionnaire (Joubert 2021a), I found that I had family and friends who experienced a similar paralysis regarding decision making. Having confirmed this, I decided to pursue creating a resource to help myself and others learn methods for overcoming this situation, a decision leading to defining the Problem of Practice (PoP) as, "Tools and processes are needed to assist the decision-making processes of individuals from being blocked through Analysis Paralysis."

Description

To address this PoP, the purpose of this resource is to guide learners in understanding how to overcome Analysis Paralysis and make decisions.

Learning Goals

As noted by Bates (2019, p. 298), goals for this course need to be explicit and also designed in order to be implemented and assessed. These goals should focus on student and subject matter needs, as well as real-world demands (p. 642). As such, the following learning goals have been identified:

- Learning comprehension and application.
- Thinking skills, particularly include strategizing and problem-solving (p. 25).
- Knowledge management, specifically information evaluation, analysis, and application (p. 26).
- Independent learning (p. 25)
- Communication skills, particularly reading and writing as well as receiving and incorporating feedback.

Based on the focusing on Cognitivism for reasons detailed further on in this document, and to a lesser degree, ethics and responsibility will also be included, specifically the idea of responsible behaviour in accomplishing one's goals.

To encourage these skills, learners will need practice through context-specific working examples, moving through small steps with immediate feedback on progress. As such, information will be presented to provide a base of knowledge from which to draw, combined with experiential learning through a practical exercise. It will also include reflection for learners on their understanding of the material as well as the processes themselves.

Intended Audience

Participants of an initial questionnaire (Joubert, 2021a) indicated a wide array of decision scenarios as providing overwhelm, with options ranging from family/household, personal/life, design/creative, authoritative/leadership and product choice/purchasing decisions (see Figure 1). As a result, this learning resource is intended to be broader and more generalized in order to provide benefit to a general audience. It is, however, intended for adult or mature learners rather than for children and/or teens.

Rationale

Through providing information on the nature of Analysis Paralysis, steps to work through it, as well as a branching scenario, it is my belief that this resource will meet the PoP in helping provide knowledge and practical tools for learners to overcome their own Analysis Paralysis in a broad array of circumstances.

Tools

This will be presented on WordPress using the H5P plugin. Videos will be created using Camtasia and/or DaVinci Resolve, and hosted on Youtube, with WEBVTT-based captions (Web Video, 2021). Audio will be implemented using Audacity and Ableton Live, while visual items may be required using a few tools and resources.

Assessment/Evaluation Plan

During learning, short multiple-choice questions will be used in order to assess the principles being taught. While a one-item questionnaire using a Likert scale would be excellent to add, particularly between modules to better gauge the cognitive load of learners (p. 115), this does not appear to be available within H5P (How to insert, 2018). Finally, after the example scenario, a short answer reflection will be presented for students to reflect on how the principles worked in practice, as well as to reflect on how they may be applied to their own situations.

Learning Theories & Instructional Design Principles Used

Judging by the research, constructivism appears to be best suited to problem solving (Bates, 2015) and, as such, would appear to be a first choice regarding appropriate learning theories. Upon further discussion on the course Moodle forums (Joubert, 2021b), the concern was raised that it may be far too loose and “messy” of a process, leading to potential issues given the nature of analysis paralysis and cognitive overload. In addition, there were concerns regarding how the limited time available to create this resource may impact the quality of the final product and, ultimately, the effectiveness for learners. As a result, Cognitivism, which is more prescriptive and structured (Bates, 2015), and which does not require additional resources such as a discussion forum, was settled on as a more appropriate learning theory for this resource.

In addition to Cognitivism, the Cognitive Load Theory framework (Leagy et al., 2012) will be utilized to better minimize cognitive load while learning. To minimize this overload no time constraints regarding activities (de Jong, 2012, p. 123) or the study time (p. 124) will be implemented. A combination of audio/visual modalities will be utilized wherever possible, while the ability to replay and move forwards and backwards through the material, termed a Reverse Modality, will be implemented wherever possible to provide as effective a learning environment as possible.

Also regarding presentation, and recognizing that various disabilities may cause difficulties with cognitive load, Accessibility guidelines will be observed (Accessibility, n.d.; de

Jong, 2012). With this in mind, H5P was selected for a delivery tool since a wide variety of its content types currently meet WCAG 2.1 AA guidelines (Recommendations, 2020). By using only these components of H5P, the resource should be able to meet and exceed AODA requirements since those are based on WCAG 2.0 AA guidelines (Thomson, 2020). Similarly, the WCAG will be referenced to ensure that any custom components are accessible for learners using methods such as closed captioning for videos and content chunking (Web content accessibility guidelines, 2021).

Finally, the resource itself will be developed following an Agile Framework which will allow a rapid prototype and iteration process (Salza et al., 2019). Feedback can be quickly garnered regarding the prototype using either H5P assessments or additional Google Forms questionnaires, with iterations made based on the feedback provided. The intent is that, in combining this theory, framework and guidelines, the resource itself should prove to minimize any pre-existing cognitive overload and overwhelm.

Instructions for Use

The user interface for this course (see Figure 2) has the following 8 major functions or controls:

1. The blue box with three lines shows and hides the menu. In this image, the Course Menu (see Item 5 below) is not hidden.
2. This is the Section Heading and will provide information on what page or course section you are on, as well as an overview of its contents. It is an expanded view of what is shown below in the Course Menu (see Item 5 below).
3. This shows two numbers, separated by a forward slash. The number to the left of the slash shows which page of the course you are currently on, while the number to the right of the slash shows the total pages in the course.

4. These three icons allow for navigation or expansion of the window. The left and right arrows allow you to move one page backwards or forwards in the course. The "X" allows you to view the course in Fullscreen mode.
5. As noted above, this is the Course Menu. In it you will see the course name, followed by every page in the course. Each course page begins with a number, showing which Module or part of the course the page belongs to, followed by a heading describing the page contents. To the right of the text is a circle showing whether you have viewed this page: If the circle is empty, the page has not been viewed yet; If it is completely dark, it has been.
6. An audio player is located at the top of every page. Clicking play allows you to hear the text being read, while allowing you to follow along as needed.
7. The "Summary & submit" button allows you to see statistics on your progress through the course.
8. This is the main course window showing the contents of the page. Any text, audio, video, and images will be located here.

In addition, there are several videos provided throughout the course. These videos are hosted on Youtube and operate like any embedded video. As such, you may watch them here in the course or click on the Youtube logo once playing in order to view them there. The videos may be expanded to be full screen and all videos also contain Closed Captioning.

Plan for Use

As noted, this learning resource will be shared openly and freely on my MALAT WordPress blog on <https://malat-webspace.royalroads.ca/r ru0157/the-overcoming-analysis-paralysis-course/>. It will be licensed under the Creative Commons as Attribution-NonCommercial-ShareAlike (About the licenses, n.d.), allowing adaptation, remixing, and building on the resource itself provided that I receive credit. This will also ensure that any future versions are built using the same license, allowing it to be freely available to and for others.

Figure 1

Decision Types that Overwhelm

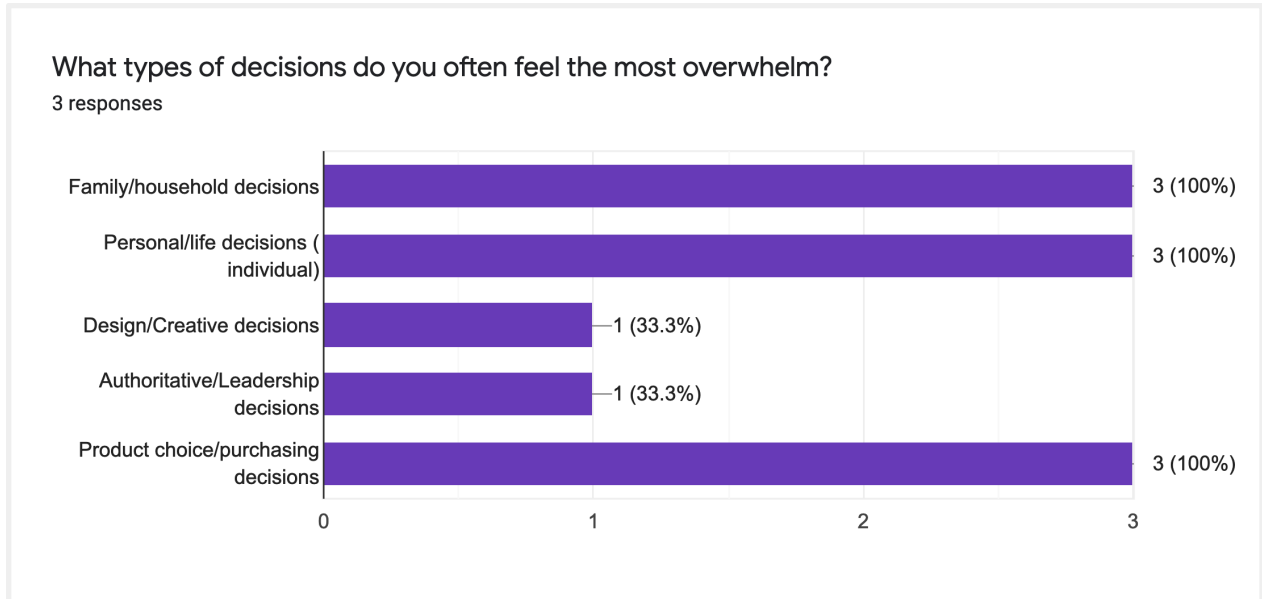
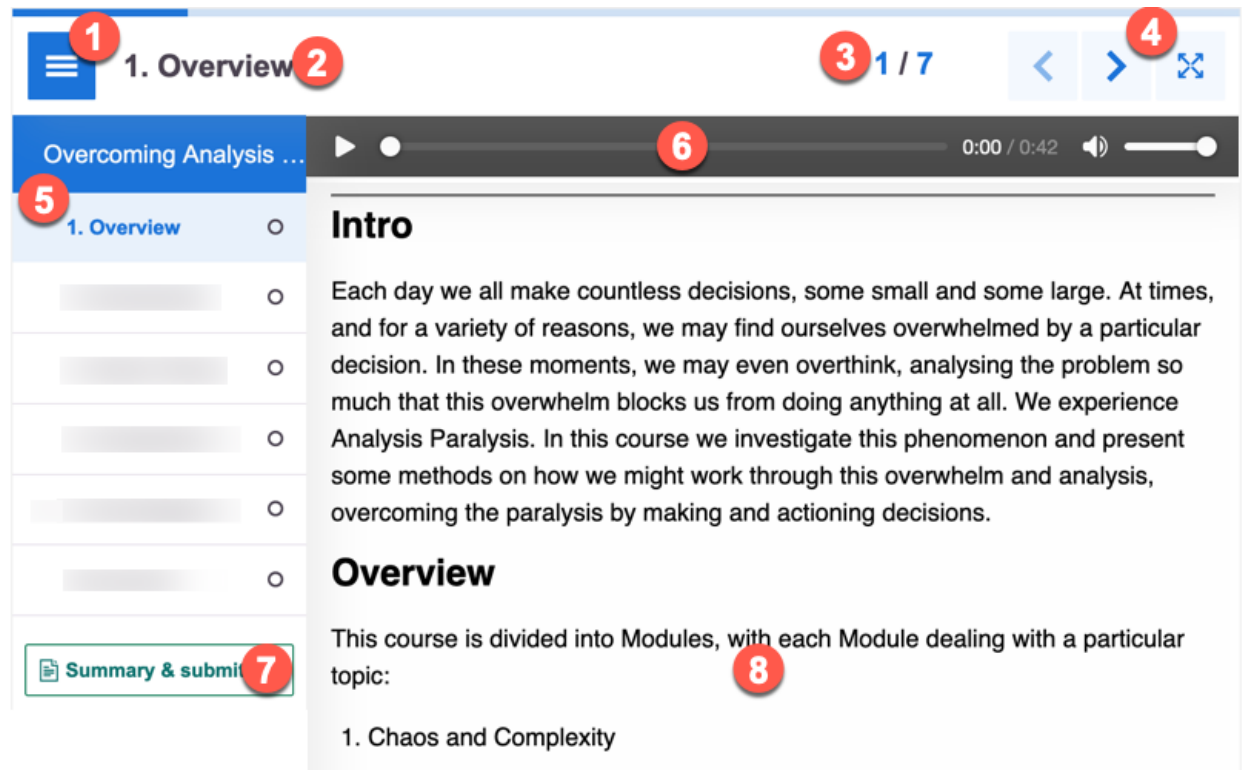


Figure 2

Course User Interface



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