# **Expert Reviewer Consent Form**

### Title of Research:

A Model of Expert Instructional Design Heuristics Incorporating Design Thinking Methods

## **Principal Investigators:**

Dr. Ken Potter, Virginia Tech Kristin Machac, Doctoral student at Virginia Tech

#### I. Purpose

The purpose of this study was to identify design thinking methods that aligned with heuristics of expert instructional design practitioners, and to design and develop a new model of heuristics and design thinking methods, which could assist novice designers as they enter the instructional design field. The model represents a synthesis of the results of a literature review, which included identification of common stages of instructional design models, challenges among novices entering the instructional design field of practice, heuristics of expert instructional designers, and a review of design thinking origins, processes, and methodologies.

#### II. Procedure

If you agree to participate in this study, you will be an expert reviewer for this study. The expert review consists of questions regarding the model of expert instructional design heuristics incorporating design thinking techniques. The expert reviewer will examine the validity and feasibility of the model. The expert reviewer will provide written feedback regarding the model via email and within the designated expert reviewer comment cells within the Microsoft Excel tables.

#### III. Risks

The risks associated with participation in this study are minimal. Risks to participants are no greater than the risks associated with normal conversation. You have the right to withdraw from participation at any time by notifying the researcher in writing or in-person of your desire to withdraw. The researcher will work to ensure all materials collected through this study are stored securely and remain confidential.

## IV. Benefits

There are no direct benefits to you for participation in this study. No guarantee of benefits has been made to encourage you to participate in this study.

## V. Extent of Anonymity and Confidentiality

The results of this study will be kept strictly anonymous and confidential. Your written consent is required for the researcher to release any data identified with you as an individual to anyone other than personnel working on the study. The information you provide will have your name removed and only a pseudonym will identify you during analyses and any written reports of the research; you reserve the right to choose this pseudonym. Data will be kept for approximately one year after the conclusion of the study.

### VI. Compensation

Your participation is voluntary and unpaid.

#### VII. Freedom to Withdraw

You may withdraw from the research project at any time and for any reason. You are free not to answer any questions or respond to experimental situations without penalty. To withdraw please inform the researcher listed at the bottom of this form.

### VIII. Subject's Responsibilities

I voluntarily agree to participate in the research. I have the following responsibilities: to review the model of expert instructional design heuristics incorporating design thinking techniques; and to respond to a set of questions to provide feedback through email including follow-up reviews if needed.

## IX. Subject's Permission

I have read the Consent Form and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent:

Subject signature	Date
Bullans	12/06/2020

Should I have any pertinent questions about this research or its conduct, I may contact:

Dr. Ken Potter 540-231-7039 <u>kpotter@vt.edu</u> Kristin Machac 540-354-7650 <u>marober5@vt.edu</u>

## **Evaluation Questions for Expert Review**

# Heuristics of instructional designers

1. Do you agree with the researcher's identification of instructional design heuristics in Table Set 2 of the Expert Reviewer MS Excel spreadsheet?

Yes, I agree with the researcher's identification.

2. Based on your expertise, are there instructional design heuristics that should be added or removed from Table Set 2?

I do not think anything should be removed, but there are areas that could be combined or bracketed together to keep the message clear. Gaining empathy for people and process and communication through repetition and visuals being an example. As the novice designers is compiling and working through the material, it may be useful for them to pair those ideas together and see how they can play off of one another or come together during the Design Thinking methodology – rather than seeing them as siloed steps.

## **Instructional design processes: ADDIE**

1. Do you agree or disagree with the use of ADDIE within the model?

Yes, I agree. ADDIE is one of the early models used in instructional design and with the design thinking methodology being a new addition to their toolkit, applying those methods within a familiar ID structure eliminates some variables and points of confusion for their project.

2. Do you agree with the alignment between the stated instructional design heuristics and their placement within the stages of the ADDIE framework identified in Table Set 2?

Yes, but I would also include notes aligning similarities and differences between the MAKING methods and DEVELOPMENT stage of the instructional model. There may be designers who look to streamline or simplify the process and link up some of the like-terminology and think those elements must be paired together, rather than mixed/matched as needed.

### **Design thinking**

1. Given the stated heuristics, do you agree with the researcher's selection of design thinking methods in Table Set 3? Please explain each selection for which you disagree.

Contextual Inquiry could also be an interesting option for Identifying Stakeholders - as some questions and comments may emerge while viewing and experiencing the daily actions - some of the fine details might be overlooked by someone who experiences those on a regular basis where the subconscious takes over performing those tasks or checks.

I would not rule out Fly-On-The-Wall in for Identifying Constraints. It makes me think about the story of how Continuum developed the Swiffer for P&G - the observational component led to the identification of need -rather than the interviews.

Reflective examination of Journaling done over time could also be interesting for barrier identification and contextualization.

It is a little more abstract, but could Buy a Feature offer insight into areas of empathy and process? Identifying areas of development or additional components based on limited resources might paint a picture of need and conflict that doesn't come out in the interviewing or observational moments.

Round-Robin could also be interesting Prioritizing Needs to ideate multiple possibilities and then fine tune or adjust afterward.

2. Given the stated heuristics, do you agree with the researcher's recommendations for individual methods and method combinations in Table Set 4? Please explain each selection for which you disagree.

I agree with the researcher's recommendation with a few notes included (as mentioned earlier).

For the sake of the novice designer, would it be helpful to combine Identify Barriers and Identify Constraints in the same thought process? It may be confusing if they feel it's too rigid of a model or that each stage needs to be acted upon or completed in a specific way.

For Prioritizing Outcomes, how does the model support the choice or structure here? Is the designer informed enough to make the best decision? Is there a way to emphasize that the process and human-centered thought is more of a goal than applying the perfect method?

For the Gaining Empathy for Processes section, I would make the note that it would be interesting to see which methods novice designers chose over a period of time, or through multiple projects while first starting out. Something like Walk-a-mile can be intimidating or stressful, and the time commitment and dedication needed for Journaling can feel overwhelming. From a practical side, I wonder if these stresses would sway or steer novice designers in their choices. How much of their thought process would be "what can I do quickly?" versus "what is the best way to collect this information and engage with stakeholders?"

For Seeking Feedback, it would be great to develop an action plan or follow up to this stepto make sure the methods being chosen yield an actionable path forward for their work and both refinement of design and expertise for their future projects and designs.

## **Model Usability:**

1. To what degree was the model organized in a logical way that made it easy to understand?

I find the model to be easy to understand the advancement from table to table helps demonstrate and model how ideas and projects could be advanced. Being comfortable or having the knowledge to build and align design thinking methodologies can be difficult in the beginning, so the suggested pairings are essential to success. They are also written in a way that as designers progress and experience the process, they will be able to generate their own combinations in future projects.

2. To what degree will this model assist novice designers in their ability to design, communicate, manage, and evaluate new and existing instructional design projects?

I believe this is a strong starting point and scaffolding mechanism for novice designers to pair design thinking with instructional design practices. The inclusion of human-centered design practices within ID will only become more important in a post-COVID educational world for the private and public sector. The instructional material can be designed for specific audiences and delivery points, beyond the typical needs, task, and audience analysis used in traditional ID standards. The designers, content experts, and potentially learners are generating information to better create the end-product.

3. In what ways do you suggest the model could be improved?

For practical purposes, the final model would be served well to be presented in HTML form, especially for the Table Set 1 items. Alignments could easily be moussed over to display definitions and links to the Heuristics for quick reference. Generating this type of user experience may also make it a quick-reference tools for both novice and experienced designers as they brainstorm and sketch out new course ideas and structures.

4. Please provide any additional comments or feedback you feel is appropriate and would be beneficial for this study.

It will be interesting to see how the model is used and how novice designers can keep from subscribing or using their newly found design thinking skills in a way that differs from the rigidity that can accompany instructional design models and theories. I think many instructional designers are taught to poor through the "Green Books" and choose a model and follow that structure exactly to replicate results, much like traditional research methods. In my opinion, however, design thinking and human-centered design is more malleable than instructional theories, and the two should be combined in a way that best highlights the or makes use of the tools within. Starting with Rose, Thorn, and Bud, followed by Affinity Clustering, Visualize the Vote, and Statement Starters to develop a common vocabulary and move an idea forward, I also know that the people in the room really dictate what needs to happen – it's not universal. Helping novice instructional designers embrace this idea is difficult but necessary.