**Reflection on Developing Instructional Design Expertise**

Freddi Rokaw

Purdue University

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**Introduction**

In my professional experience, there has been a lot of talk about what makes an “expert,” an “expert.” I am a bit flummoxed by the terminology in this course because of my previous experience with the topic. I do not claim to be an expert at anything (especially instructional design), so I found it difficult to pull samples out my own work that would illustrate any expertise. It is much easier to uncover the markings of a novice than an expert in my work. I realize this is an evolutionary process and that I have to start somewhere. I hope the following will at least show some promise for the journey that will lead me to future expertise.

**Problem Finding**

***Summarize vs. Synthesize***

An expert combines available information, his/her own previous knowledge and any other necessary resources to paint a broad picture of the context in their own words. After presenting a summary of the overall context, an expert is able to separate the primary issues or challenges that need to be addressed and relate them to the broader picture in their own words. As Ertmer & Stepich state, the result is a “progressive elaboration” that relates the situation in a coherent and accurate way (Ertmer & Stepich, 2005, p. 40).

The following example from the Craig Gregersen case (Rokaw, Craig Gregerson Case Analysis, 2012, p. 2) may be an adequate example from my own work, but certainly shows the markings of a novice. In this case, I laid out the context from the available knowledge, summarized the issues in bullet format to show the numerous challenges facing the designer, and then proceeded with a focused prioritization in hierarchical order with a description of the two primary challenges to be addressed in the analysis.

*“Craig Gregersen has been hired as an external instructional design consultant by Electron Corporation to create an intervention on product liability for international and local employees. Craig has met with quite a few design challenges in the past five weeks before this case study is presented. Some challenges of this case include the following:*

* *Political infighting and power struggles amongst stakeholders involved in training design.*
* *Opposing views and lack of cooperation from the stakeholders on what the focus of the training content should be.*
* *No clear lead decision-maker.*
* *An increasingly broadening scope of the project, to be delivered in a one-day course.*
* *An increasing number and diversity of learners.*

*Because Craig will have some big decisions to make, the two design challenges that need to be addressed first and are chosen as the highest priority for this analysis are (1) the opposing views of stakeholders; and (2) how to deal with the large scope of the project in a short timeframe for delivery (a one-day workshop).”*

In order to step the above example up to an even higher level, I see now that I might have included one more sentence to tie the identified challenges in to the bigger picture, thereby showing a greater level of synthesis. As Ertmer & Stepich’s article states, an expert instructional designer “begins with the broad issue … but goes on to define that issue in terms of a more specific primary issue” (Ertmer & Stepich, 2005, p. 40).

Later in my experience of writing case analysis, I presented the design challenges for the Beth Owens Case (Rokaw, Beth Owens Case Analysis, 2012, p. 2) in order of priority as they relate to the key stakeholder:

*“These design challenges are presented in order of priority based on the needs of the main stakeholder, Dean Jacobs.”*

After describing the primary design challenge in detail, and how it related to the larger context, I finished off the section by leading into the secondary challenge as such:

*“Which leads us to how she might go about doing that in Design Challenge 2 - the resolution of two methodologies of training.”*

***Principles vs. Features***

An expert instructional designer can take the given information and interpret in a way that describes the issues at hand in a larger, more conceptual way. Rather than stating the facts in a list of concrete ideas or events, the expert is able to take each element and show it’s relevancy to the broader picture.

In the Beth Owens Case Analysis (Rokaw, Beth Owens Case Analysis, 2012, p. 3), the second design challenge that I identified was a conflict between two methodologies of training. Here is an example of describing the challenge and how it becomes relevant to the proposed solution that has yet to come:

*“Beth sees her primary role at the college as helping faculty members make the transition from traditional teaching methods to using a more constructivist approach. This is her expertise. It is clear that Chef Reiner’s behaviorist methodology of teaching is well thought out and relevant to on-the-job requirements. Though effective, this methodology may not be inclusive of all students. Assuming the enrollment numbers are dipping because of Chef Reiner’s behaviorist approach, Beth believes her constructivist methodology will help to resolve the issues of student retention, among other numerous benefits.”*

An assumption has been made in the above quote. In a real situation, the missing information would hopefully be resolved. Note, though, that room has been made for modification or deletion in the event that further information becomes available at a later date (see *Problem Solving: Flexible vs. Rigid*).

***Relationships Among Issues***

An expert instructional designer is able to uncover and relate connections between the design challenges presented. I think this is my favorite part of instructional design. Finding the connections between the issues and demonstrating their relevancy is where the “aha” moments come from.

An example in my work comes from the Beth Owens case (Rokaw, Beth Owens Case Analysis, 2012, p. 4)

*“Beth can seek to add a more constructivist method by using feedback from customers in the dining room. Chef Reiner could use the feedback from the diners, along with the students’ previous experience to guide learning and behavioral change. If students can use this authentic experience (that they truly enjoy) in a way that helps them to learn, they will be “own” the knowledge, make informed decisions based on their personal experiences, and be motivated to continue demonstrating good behavior.*

*Both methods can be combined to create an enriching learning experience for the students. Student motivation will be increased which should naturally aid retention. By combining the two methodologies, Chef Reiner will be able to ensure professional behavior and hygiene, and at the same time, build motivation by rewarding students with their successes. A motivated student stays in class, so the retention rates will increase.”*

The above example shows the issues in terms of a cause and effect relationship. The initial idea is presented in the beginning (obtain feedback from diners), followed by the benefits to the stakeholders (Beth gets her “constructivist” ways, Chef Reiner uses the information to teach, students get authentic feedback). Finally, and most importantly, the paragraph includes the potential impact on the Dean’s original request for action (retaining students).

An example of linking issues by their relationships in a chronological way can be found in the Craig Gregersen case (Rokaw, Craig Gregerson Case Analysis, 2012, p. 4):

*“Once Craig has established the goals and objectives that the stakeholders have agreed upon and they are in line with his ethical beliefs, he can set the expectations with the stakeholders and confirm their support. At that point he can begin work on the needs analysis part of the design process. Although there are many challenges to meet, Craig has many resources to help match the learners’ needs to content in his overall design strategy. The first priority for Craig is to identify who the learners are and what their specific learning needs are based on the stated objectives. Once these have been determined, Craig will have a better idea as to how to formulate the overall design strategy integrating the needs of the stakeholders and whether he needs to negotiate any time constraints.”*

***Reflective vs. Reflexive***

An expert instructional designer can take the available information from a case and make suggestions in a manner that allows room for possibility. As Ertmer & Stepich state, these possible scenarios are “often in the form of testable hypotheses or if-then statements” (Ertmer & Stepich, 2005, p. 40). An example from my work comes from the Denny Clifford Case (Rokaw, Denny Clifford Case Analysis, 2012, p. 2):

*“Other challenges may include the time it will take for Denny to learn Cynthia’s method of facilitation, as well as his challenge of designing a delivery method that highlights concepts rather than content-based lessons delivered within a rigid framework. If good communication can exist between the two stakeholders, these additional challenges will be addressed during the design process.”*

In this quote, I refer to the possibility of additional challenges being addressed in the design process if good communication can exist between the stakeholders. Again, this shows flexibility and the possibility for modifications, additions or deletions if/when the testable hypothesis has occurred. To improve this analysis, the wording could have been changed in the last sentence to say: “these additional challenge *may* be addressed during the design process.”

Another example comes from the Craig Gregersen case (Rokaw, Craig Gregerson Case Analysis, 2012, p. 2), where the readily available knowledge is laid out in the scenario, but elaborated with other possible sources of information from the case and outside sources.

*“Craig needs to determine who the lead decision makers will be amongst the stakeholders in order to determine what the learning objectives will be for the training he will be designing. According to the case, Craig is also faced with an ethical dilemma because it seems as if the learning objectives in the forefront are opposed to his own values and beliefs of what is best for the learners and the company overall. In order for Craig to make an informed decision based on his own values and the ethics from the field (AECT, 2007 and ISPI, 2002), he will first need to commit to clearly defining the stakeholder roles and then their needs. It is only at that point that he can proceed with his next step of the design process - Needs Analysis.”*

Note that this excerpt also provides an obvious example of a *novice’s* attempt at presenting a future recommendation because of the strong rigidity of the statements (see *Problem Solving: Flexible vs. Rigid*). It is, however, a good example of chronologically presenting facts and creating a connection between the two issues (Design Challenge 2: Needs Analysis follows in the next paragraph).

**Problem Solving**

***Relationships Among Solutions***

As described in the Ertmer & Stepich article, an expert is able to create a coherent plan to solve the problems of the design issues by linking potential solutions with the challenges previously identified.

I saw the evolution of my attempts to link the proposed solutions to the challenges while reviewing all three cases. In the first analysis, the Denny Clifford case (Rokaw, Denny Clifford Case Analysis, 2012, pp. 4-5), these relationships were entirely absent and the language used was that of a true novice, as shown below:

*“Denny will create instructional materials that are presented in a format that meets the needs of the stakeholders using a constructivist approach. He will use web technologies to present asynchronous online workshops that may include the following: blogs; video chats/webinars with Cynthia so she can share her expertise with participants; collaborative, hands-on activities; a repository of resources for the participants; tools for participants to self-assess their new skills; and provides an authentic environment in which to learn.”*

The next case analysis, the Craig Gergersen Case (Rokaw, Craig Gregerson Case Analysis, 2012, p. 5), was a separate list of suggestions with no connections mentioned at all:

*“Set up a stakeholder meeting as soon as possible to establish a civil relationship between all parties if possible and clarify the chain of command (MindTools 2012). A communication plan will need to be contractually agreed upon. Craig will share his expectations, arrange to gather more information as necessary, set boundaries and limitations, and clarify his instructional goals as they align with his ethical beliefs and obligations to the profession (ISPI 2002).”*

Finally, the analysis for the Beth Owens case (Rokaw, Beth Owens Case Analysis, 2012, pp. 3-4) showed a glimmer of hope! As shown below, the potential solutions were related back to the original design challenges on a couple of occasions:

*“For Beth to deliver the result required by Dean Jacobs, she needs to concentrate on conducting an assessment of Chef Reiner’s culinary program to find out why the retention of students in his program is dropping (if that is indeed the case). The evaluation should be learner-focused and conducted with interviews and surveys that assess student reactions to the instructor, level of learning and degree of behavioral change. The result of this evaluation will give Dean Jacobs the information he needs to make informed as to how to implement any improvement or development plans he deems necessary.*

***Consideration of Implications***

When proposing solutions, an expert will be sure to consider the effect the impact they will have when implemented. I appreciate Ertmer & Stepich’s mention of “including considerations that may not be immediately apparent” (Ertmer & Stepich, 2005, p. 41). I believe that when an instructional designer can reach beyond the range of their current knowledge base, they can stretch the possibilities further than expected for the project and for themselves.

Throughout the discussion board thread in the first week of this course, we were all floundering for solutions to the design issues in the Andrew Stewart Case (Ertmer & Quinn, 2007, pp. 230-234). After I had proposed the Dow’s Needs Analysis Model of Evaluation as a potential solution for solving one of the challenges of the case, Dr. Watson asked me to explicitly name the implications of my potential solution.

Dr. Watson asked: *“The steps you pull from Dow focus heavily on stakeholders, and you recommend this process as something that could've prevented the issues in the case. Could you define who the stakeholders in this case are and explain how Dow's Need Analysis would've solved the design issues of this case if it had been implemented?”*

My response came in the form of this chart:

|  |  |  |
| --- | --- | --- |
| **Dow Model Steps** | **Stakeholders involved** | **Effect** |
| Recognize that different stakeholders may have varied needs.  It is important to communicate with all concerned. | Andrew, Lois, Alicia, Carlton, Cecilia, End Users | Communication is key here. Had the stakeholders been able to sit down and communicate their needs and concerns in an open, safe and honest environment (especially at the beginning, but throughout the process), Andrew & Lois may not have had to trust their intuition. Grievances and concerns could have been aired out at this point. |
| Identify what type of information regarding the target course is desired in reference to each evaluation objective/question. | Andrew, Lois, Alicia, Carlton, Cecilia | Had Alicia’s team and Carlton been involved in defining what the objectives were and their importance to each stakeholder, concerns would have arisen and priorities would have been set. There would be no excuse to disregard any part of the evaluation process if they had agreed upon the items. |
| Formalize contractual agreements. | Andrew, Lois, Alicia, Carlton, Cecilia | Contractual agreements would have forced each stakeholder to commit to the responsibilities stated in the contracts. |
| Obtain "buy-in" from stakeholders to ensure that they support the effort. | Andrew, Lois, Alicia, Carlton, Cecilia | Having each stakeholder’s “buy-in” is another form of commitment that Alicia and her team obviously didn’t have from the start. This could have been a crucial step in identifying any of their misgivings. |
| Identify roles and responsibilities of all parties (both evaluators and stakeholders). | Andrew, Lois, Alicia, Carlton, Cecilia | There would have been no confusion as to who held the power to make decisions or take the lead in making changes, determining priorities or setting objectives and timelines. |
| Ensure that there is sufficient stakeholder support and resources to implement changes based on evaluation results. | Andrew, Lois, Alicia, Carlton, Cecilia | Had this step been followed, perhaps contingencies could have been covered. Carleton and Cecilia, the Project Managers, would have been able to commit to the objectives that were most important to the formative reasons for the evaluation. |

I am not sure that the format of my response was that of a novice instructional designer or not. It seems as if it is one step removed from a typical novice’s bulleted laundry list. Perhaps creating a written description might have been better? At the time, I thought the chart format was an accurate way to illustrate my thoughts.

In all of the case analyses, the instructions asked us to explicitly state the pros and cons of our recommendations. Following are two examples from the Craig Gregersen Case Analysis (Rokaw, Craig Gregerson Case Analysis, 2012, pp. 4-5):

(From Design Challenge **-** Stakeholder Analysis/Front End Analysis):

***Pros****: By establishing a common set of learning objectives, all stakeholders will have ownership in the outcome. He will also have established a support system for the project. Another possible benefit to this meeting may be the beginning of a civil working relationship between the stakeholders.*

***Cons****: It may turn out that the differences and power struggles amongst the stakeholders result in an unresolvable political battle. This meeting may even exacerbate the mistrust and lack of communication that already exists. If a civil agreement cannot be met, or if the consensus of learning objectives is something that Craig does not agree with, Craig will have no choice but to leave the project.*

(From Design Challenge 2 - Needs Analysis):

***Pros:*** *By conducting a needs analysis, Craig will have an organized method to match diverse learners to their specific needs. In doing so, he will identify a time structure needed for planning and negotiation purposes. The specifics of the instruction will determine the strategy for the overall organization of components of the training design.*

***Cons:*** *Craig may need more time for design and implementation than the company is willing to give. The case study doesn’t tell us what percentage of the employees have any pre-existing knowledge, and if so to what extent, which may seriously increase the time needed for design and implementation.*

In both instances, I was explicitly prompted to include this information, which is part of my learning process. I am unsure as to where my samples lie in that part of the novice to expert continuum. As Ertmer & Stepich discuss on p. 42 the level of detail is an important distinction between the levels of novice and expert (Ertmer & Stepich, 2005). Keeping this in mind, I hope to develop this dimension as part of the overall instructional design process in the future.

***Flexible vs. Rigid***

Ertmer & Stepich describe this component of expertise as one where the expert presents solutions early on in the process of problem solving. The proposed solutions are also presented in a way that allows for modification, addition or deletion when more information becomes available. Language is paramount here, in that words like “must” and “should,” indicate a rigid stance, and “may,” “might” and “could” suggest a more flexible recommendation, though still committed. The expert acknowledges that things might not go as planned, so multiple methods might be proposed.

While looking through all three case studies, I see that I was all over the map when it came to this dimension of instructional design expertise. I believe this wide range is due to experimentation, which is the sign of a novice with very little experience. Following are some examples that address this dimension.

When describing the overall design challenges at the beginning of the Denny Clifford Case(Rokaw, Denny Clifford Case Analysis, 2012, p. 2), I wrote:

*“Cynthia and Denny do not speak the same language. Cynthia needs to clarify her needs and scope of the project. In addition, she should provide constructive feedback for Denny throughout the design process. Denny needs to be open-minded, willing and able to learn a new philosophy as well as a new structure of designing instruction. Denny should be able to communicate his need to plan and structure the design. Both stakeholders need to keep the lines of communication open in order to make sure the needs of all stakeholders are being met. Without both of them being able to listen and learn from each other, Denny will become frustrated or overwhelmed and Cynthia will not get the product she desires.”*

This may be a good example of bringing up the solution early on in the process of problem solving, but the language here is very commanding and rigid. Absolute terms have been underlined for emphasis. There is absolutely no room for modification here.

In contrast to the above example, this excerpt from the Craig Gregersen case analysis (Rokaw, Craig Gregerson Case Analysis, 2012, p. 5) shows a much more flexible style in proposing possible solutions. It links the suggestions to the original design issues mentioned earlier on in the analysis. In addition, outside sources have been included as part of the potential solution.

*“Using a Rapid Prototype method such as ADDIE, it is suggested that Craig create a Performance Map (ASTD, 2006) to match the learners’ needs to the curriculum. Possible techniques for delivery may need to include break-out sessions, role-play groups and separate training days for groups of learners (so as not to conflict with employee time on the job). It is suggested that Craig identify and use any formative and/or summative evaluation results from the legal department’s previous workshop (if available) in order to determine and build upon participants’ levels of reaction, learning and behavior that may already exist (Kirkpatrick, 2006). He can also use his list of suggested contacts as resources, being selective and prioritizing the information received.”*

**Action Plan for Moving Forward**

My goal is not to become an expert. My goal is to become more adept and experienced with instructional design. I don’t think a true expert can ever be an expert! If I can expand my knowledge constantly and consistently and have more opportunities to experience new and different contexts, I will be able to apply my growing expertise to the next opportunity that presents itself.

Specifically, I would like to improve my consistency. As I mentioned earlier, the need to experiment with a wide range of responses must be the sign of inexperience. By achieving this goal I will be able to find my voice and gain credibility and confidence in myself and project that outwardly to others as well.

Keeping the big picture in mind at all times is key. This means not judging or inferring meanings and not placing blame. It seems it is human nature to do so and I will fight the urge to pass immediate judgments without all the information. There were some great examples of this in the Craig Gregersen case (Ertmer & Quinn, 2007, pp. 163-167). Because Richard from the legal department was stubborn and incommunicative with Craig, it was assumed that his opinion was not as valuable or causing problems. With further consideration it was found that his points were valid and important. It is too easy to dismiss information when a personal bias gets in the way.

At the same time, delving into the details is a part of the instructional design expertise I would like to develop in the future. As was stated earlier in the “Consider the Implications” section, I was explicitly prompted to include this information in my analyses. When asked to do so, I believe I was able to respond, but I hope this will develop into a natural practice in the course of designing instruction.

I would also like to gain experience by expanding my research horizons. I am very interested in learning about current learning theories and technologies that impact instructional design. By laying this foundation and keeping up with the latest research, I feel my work will be more relevant to the times and whatever ill-defined context may come my way.

I hope that the process of synthesis will come more easily to me as I become more experienced with instructional design. It is quite an effort at the moment to look at given information and turn it around in a way that is coherent, using my own words. I find myself reading and re-reading, modifying and adapting, questioning myself and hoping for the best. It wonder if this will always be the case, as every situation that presents itself is different. My goal would be to integrate this ability by gaining experience and having it so well versed and practiced that it becomes part of my “intuition.”

That being said, the part of instructional design I appreciate the most is the ill-defined structure! Every situation with its challenges is a new, personal learning experience and an opportunity to have a positive impact on others.

To summarize, I refer to the chapter “Five Steps from Novice to Expert” by Dreyfus & Dreyfus (Dreyfus & Dreyfus, 1986). The authors lay out five stages that a person passes through when developing their expertise. This course has enabled me the space, support and encouragement to practice my “competence” (Stage 3) as an “advanced beginner” (Stage 2) (Dreyfus & Dreyfus, 1986, pp. 22-27). I have even been able to try my hand at “proficiency” (Stage 4), but as Dreyfus & Dreyfus note on page 35, it is easy for a person at one stage to imitate the characteristics of the next stage but will most likely perform poorly because of their lack of experience. I have included a few of these heuristic attempts in this paper.

When reflecting upon my own development of expertise in instructional design, my ultimate goal is to reach the next two “higher levels” of skill acquisition in our field that are characterized by “a rapid, fluid, involved kind of behavior” (Dreyfus & Dreyfus, 1986). The fourth stage of “proficiency” (pp. 27-30) will, no doubt, take many years of experience. I am very much looking forward to the on-going process that may lead me to realm of expertise in instructional design.

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