



# Bringing *Design* **THINKING** to Language Curriculum Design

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In a recent workshop, we challenged our teachers with two questions: (1) How might we make language learning more like taking a vacation? (2) How might we make vocabulary learning as effortless as possible for adult language learners? While you read the following article on how to apply Design Thinking to language curriculum design, try to think of 50 different answers to these questions. Yes, 50—not 5, not 10—50. Welcome to the world of Design Thinking.



Share your 50 ideas for these two questions in the ACTFL Online Community ([tinyurl.com/the-language-educator](http://tinyurl.com/the-language-educator)). Were you inspired with other creative ideas for language curriculum design? Share those, too!

**J**ake, a Spanish student who is 6 weeks into an intensive language program, logs into a Google Site in the morning using his phone. He is in the cafeteria having breakfast and decided to review some listening materials before heading to his classroom. He no longer carries his textbook because all his course materials are online. In his classroom is a classmate, Diana. She opens her book and starts examining 60 new words she aims to learn that day. She sorts the words into three groups: “Palabras con dulce” (very easy to learn because of their similarity to English), “Palabras con sal” (somewhat easy to learn), and “Palabras con chile” (difficult to learn). She is happy to find she is already somewhat familiar with 25 words and decides to prioritize 10 words in particular to practice for production that day. Across her classroom is David. David, 16 weeks into the program, is reading a new book he checked out from the extensive reading library yesterday. He is now 40 pages into the book and cannot wait to learn the ending of the story. Tom, Jack, Marissa, and Stephanie, in the next room, are explaining what they learned from different news pieces they just read about hurricanes in South America and international aid programs. Their teacher, José, asked them to do a round-robin to report their findings to one classmate at a time. They find it easier and faster each time they explain their findings to each classmate.

These language learning scenes illustrate a few key features of the new Spanish curriculum at the Foreign Service Institute (FSI), the training arm of the U.S. Department of State. Instead of developing yet another textbook with a familiar layout, FSI curriculum designers sought ways to revolutionize language learning to address 21<sup>st</sup> century language learner needs. We believe Design Thinking, an approach that comes from industry, can help us think outside the box, design creative solutions to our curriculum challenges, and ultimately develop language curricula that deeply resonate with our learners and teachers.

## Where Did Design Thinking Come From?

Design Thinking has become a buzzword ever since first used by Tim Brown, CEO and president of IDEO, a company that designs revolutionary products for companies like Apple. This methodology for examining design problems from a human-centered perspective aims to develop creative solutions to those problems. Its process promotes the generation of radical and innovative solutions as opposed to the more common approach of making small, incremental changes to an existing process. Design Thinking has not only become a new industry standard in the design world, but it has spread to all areas of business, government, and education—at least to those who seek strategies for innovation. IBM, GE, and Samsung have adopted it, and educational institutes

like Stanford University's d-School Institute of Design and the Llama Institute in Pittsburgh have begun teaching the approach to respond to the demand for it.

Although it started as a product design methodology, the principles of Design Thinking can improve the processes of many things. Hospitals have used Design Thinking to improve patient experiences. Airports have used it to improve their security procedures. Companies have cut costs by applying Design Thinking to their procurement processes. The RedLab in Stanford University's Graduate School of Education has conducted research on Design Thinking in K–12 and postsecondary settings. And now, at the FSI, we have adopted it for our language curriculum redesign.

### Human-Centered Curriculum Design

So, what is Design Thinking and how does it differ from traditional foreign language instructional design models? There are a few specific aspects of Design Thinking which differentiate it from other models commonly applied to curriculum design.

Design Thinking is a human-centered design approach. Human-centered curriculum design means we recognize that we are designing human experiences for specific people when we develop foreign language curricula. Our design teams observe learners as they learn. They interview people. They use many other ethnographic methodologies to gain a deeper understanding of the needs and wants of people, the users of the curriculum. Such understanding is often not quantitative but deeply qualitative, requiring intuitive judgment and emotional resonance rather than analysis of objective data and utility.

A more traditional instructional design model like ADDIE or Backward Design will use similar methodologies during their Needs Analysis phase, but they tend to focus on the utility of the curriculum. Their primary concern is on whether the learning sequences and activities in the curriculum support the curriculum goals. Human-centered curriculum design, on the other hand, focuses on the deeper qualitative understanding of the human experience in the learning process.

Our Spanish curriculum design team at FSI, for example, was interested in questions such as how our students use their language materials and how our teachers utilize the textbook. Through observations and interviews, we found that virtually every student in adult language classrooms these days has a mobile device, access to Google Translate, and a variety of apps for language learning. We also found teachers constantly modify and adapt materials to provide up-to-date information. Recognizing that a conventional textbook format does not provide the level of accessibility and flexibility that users appreciate, the curriculum design team decided to develop the entire curriculum in an online platform using Google Sites instead of a textbook. That way, our students can access materials using their mobile devices anywhere and input from teachers can be easily implemented, resulting in timely changes in the curriculum.

Human-centered designers study the student experience deeply embedded in context as well, asking a variety of questions. How do students “hack” our materials? What changes do they make to them? What

do they underline? What do they skip? When do they “check out”? What makes them get excited about learning? And, perhaps most importantly, when are we unnecessarily increasing their learning burden?

By examining teacher and student behaviors deeply embedded in context, we can learn a lot about their beliefs, preferences, and attitudes about language learning. Human-centered design can help designers achieve a deeper understanding of the human experience and develop a product that resonates more deeply with users. Our design team inquiries gather data from all directions through analysis of the problem, reviews of the literature, and consultations with stakeholders. We looked at several years of test results, consulted with the World-Readiness Standards for Learning Languages, Interagency Language Roundtable (ILR) Can-Do Statements, and the descriptions offered by Common European Framework of Reference for Languages (CEFR). We reviewed findings from contemporary research. We consulted with the offices where our students work. We spoke with language learners in all contexts, in addition to our Spanish students. We found that when our students were doing things they wanted to do or needed to do, when our students were doing things that were interesting to them, then our programs were successful. No matter what the age of the students—be they senior citizens in community education classes or middle schoolers working with their first foreign language experience—having them participate in role-plays doing the kinds of things they would want to do is a key to success. When the situation is relevant, the language real, and activities are both meaningful and interesting, students learn.

### Asking the Right Question

Design Thinking is about delivering creative solutions. More often than not, creative solutions become possible through creative reframing of the questions. Design Thinking encourages designers to question the assumptions about their curriculum needs by brainstorming questions.

Imagine that a program wants to develop a reading comprehension textbook for their students. Traditional instructional designers might begin by asking what the objectives should be. Some might identify target topic areas, while others might identify which grammar points or vocabulary lists to address. Some designers might ask what kinds of texts future educational institutions or employers may require their learners to read. Regardless, their design solutions would be restricted to a reading “textbook,” as such a solution has already been implied from the beginning.

Design Thinkers, on the other hand, would go back to the drawing board and ask why one wants to develop a reading textbook in the first place. They might begin by asking questions like: How might we make reading fun and interesting for our students? How might we get our students to choose reading first when they have free time? How might we motivate our students to “sneak” the book home so they don't have to wait until tomorrow to find out what happens next? How can we make vocabulary learning for our students as easy and natural as possible,

*Design*THINKING is about delivering creative solutions.

## There is a big difference between doing things right and doing the right thing.

like children do? They reframe their questions to get unexpected and more telling answers. The solution, therefore, might not be a textbook at all. Our Spanish design team, for example, developed a library of graded readers for students for extensive reading. They also developed many sets of interwoven stories with developing plots that recycle previously introduced vocabulary. These design features were introduced to facilitate incidental vocabulary acquisition through a curriculum that provides natural spaced repetitions of previously learned words.

Design Thinking encourages curriculum design teams to reframe the problem because doing so enables the teams to dig into why a certain problem exists and what the underlying issue really is. The process allows the design team to ask themselves, "Why we are doing this in the first place?" before jumping into "How we can do this better?" There is a big difference between doing things right and doing the right thing. Far too often, people focus only on the former. Design Thinking is all about the latter.

### Creativity (Ideation)

The goal of Design Thinking in curriculum design is to develop creative solutions to instructional challenges. Even our most talented, educated, and skilled curriculum designers fall into the trap of delivering the same kinds of language curriculum design over and over again. Many times, our thinking processes are constrained by our experiences. We are often not aware of the perceptual, cognitive, and creative filters that

constrain our generation of potential solutions to our problems. Design Thinking aims to unlock our creative minds and to facilitate the generation of radical and creative solutions to our curriculum problems.

*Ideation* in Design Thinking is the process of generating as many creative ideas as possible before trying to formulate a solution. We believe the surest way to find the best solution is to generate as many solutions as possible. If you want to win a blue ribbon for photography at the county fair, start by taking a thousand pictures. During the ideation period, developers brainstorm as many ideas as possible, throw out the first dozen (because typically the first few are the most conventional ones), and run with unexpectedly good ones.

Design Thinkers seek inspiration from every source possible. Here at the FSI, which is located just outside Washington, DC, we send our curriculum design teams to a shopping mall—as well as the National Mall—to interview people about their language learning experiences. Our teams talk with people who did not like their foreign language classes, dropped their classes, never used their language skills or learned the language without taking classes. We have arranged conversations with second language acquisition experts over Skype to follow up on particularly compelling books or articles they have published. Our Spanish development team even sat in on a practice session for our local professional National Hockey League team to observe how players communicate in a fast, ever-changing setting. Through these unconventional activities, our designers gained insight into how people learn, how they communicate in highly interactive settings, and what characterizes expert levels of performance. From what we have seen, when development teams exit their comfort zones and explore unfamiliar territory, they may feel daunted at first but they come back from these experiences with a fresh perspective and an enhanced desire to innovate curricula for the improvement of our language training programs.

FROM LEFT TO RIGHT: *Spanish Designers Sophia Ortiz, Silvana Ruckman and Malu Jimenez at a National Hockey League practice session; Spanish Language and Culture Instructor Ellie-Ann Berrio doing a recording for extensive input; Russian Designer Nina Adams presenting an early prototype.*



## Experimentation (Prototyping)

Our design teams use early and frequent prototyping to explore and test potential solutions. For instance, we have given teams one hour to prototype a complete language lesson using video clips from the Internet. Normally, it might take weeks to produce a good lesson. Prototypes, though, are quick unpolished examples of the imagined solution to a problem. In Design Thinking, prototyping is not about creating an almost-finalized example solution. Rather, it is a tool to generate and experiment with wild ideas. Design Thinkers use prototyping to think rather than thinking to prototype. In Design Thinking, fear of failure stifles creativity and progress. Failure is not only tolerated, it is actually embraced and encouraged. The often-cited motto of Design Thinking is “Fail Fast. Fail Often. Fail Cheap!” Or as Samuel Beckett puts it: “Ever tried. Ever failed. No matter. Try again. Fail again, fail better.” Or as Elon Musk has said, “If you are not failing, you probably are not innovating.”

Our Spanish curriculum development team tackled the task of creating a course where students would learn 60 words a day for 12 weeks to gain command of the 3,000 most frequent words in the language. We believed that this 3,000-word base would make it possible for students to employ an extensive reading program to increase their reading proficiency. While 60 words a day seemed like an impossibly large number at first, our prototyping sessions discovered that having students sort the words into three groups based on their familiarities gave students a chance to process the words nearly immediately after being introduced to them. While we expected the activity to serve as a good tool for strategizing learning, we also expected some students to resist. But students loved it. They kept coming back to their lists and reorganizing them. And, to our total surprise, students complained when we dropped the activity after the first 12 weeks!

Another surprising turn of events was that the students, despite their deep investment and expressed preference for the online platform, enjoyed and appreciated having a textbook for certain purposes. By testing our prototypes early in the process, we found that there was something emotionally resonating about having a physical textbook, especially for our beginners. We therefore created a textbook version of the curriculum of the first 12 weeks in addition to the Google Site, which allows our beginning students to have the benefits of both media. Design Thinking’s non-linear approach of applying frequent prototyping and testing throughout the process allows designers to gather user responses early in the process and make timely adjustments.

When we asked our Spanish curriculum designers what activity or event in the Design Thinking process made the biggest difference for them, they unanimously answered “prototyping” activities. When we prototyped activities, we discovered that we misunderstood what we were doing. While we thought we were creating communicative activities for our students, we discovered that we were actually creating grammar-focused drills. We were asking our students to pay attention to verb forms or word choices, and thus, were distracting them from questions of meaning. We had to create prototypes several times before we were satisfied that we were finally getting things right.

A typical prototyping session may begin with an assignment to create a lesson using a video clip. Sometimes we would break the developers into teams and sometimes ask them to work individually. Developers would have 75 minutes to create a complete lesson (not to describe what they would do, but actually do it). In the real world, it might take weeks to pull together a polished lesson, but for the prototypes, we worked quickly. We spent more time analyzing the products than producing them, and that helped us learn. One lesson, for instance, had students doing some amazing things speaking Spanish, but the lesson was supposed to be a reading lesson and the designers had not included anything for the students to read. We learned a lesson from that.

Embracing failure and allowing people to take chances can be daunting to newcomers to Design Thinking. Also, leadership buy-in and support is critical to foster an innovative culture of experimenting with new and yet-unproven ideas. At FSI, the language curriculum unit spearheading innovation has been very fortunate to have the full support of Director Nancy McElDowney with respect to innovation, experimentation, and improvement. With such leadership support, we have been able to institute new standard operating procedures that require a 12-week-long Design Thinking process for all newly proposed language curriculum projects.

At FSI, design teams are composed of language curriculum specialists with varying backgrounds and expertise as well as curriculum developers from multiple language sections. Having diverse cultural and linguistic profiles among team members helps increase team diversity. We also invite people who are not part of the language curriculum design team for the Ideation phase, and we hope in the future to invite more people from disciplines like architecture and product design. Overall, we believe expanding our perspectives beyond applied linguistics will add great value to language curriculum design as a field.

How might you make language learning more like taking a vacation? How might you make vocabulary learning as effortless as possible for your adult learners? Get together with a group of your colleagues. Make sure your group includes someone who follows language acquisition research, someone who likes interior design, someone who loves people-watching, and someone who is learning a language now. Take that group out to interview people who failed or forgot all about their high school foreign language classes, regular students, expert learners, and someone who does not care about language learning at all. Now brainstorm 50 or more answers to your question. Drop the first dozen. Once you have come up with a set of interesting answers, pick one and prototype it. Then prototype it again, and then again. Critique your prototypes and present the best to students and teachers. But most importantly, have fun, make mistakes, and learn. We are sure you will learn a tremendous amount from the feedback you receive from these end users that can then be used to create an even more meaningful and effective curriculum.

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