

Archipelago of Possibilities:

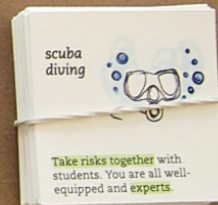
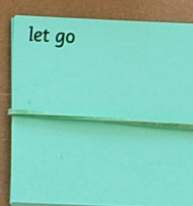
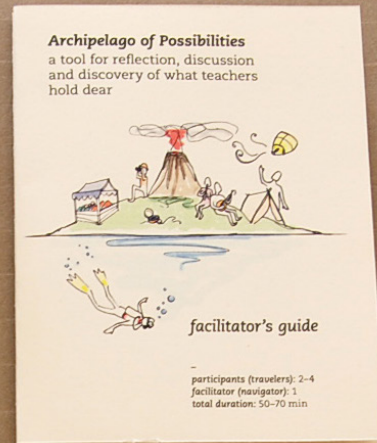
PRIMING TEACHERS TO REFLECT ON INTRINSIC MOTIVATIONS FOR CHANGE.

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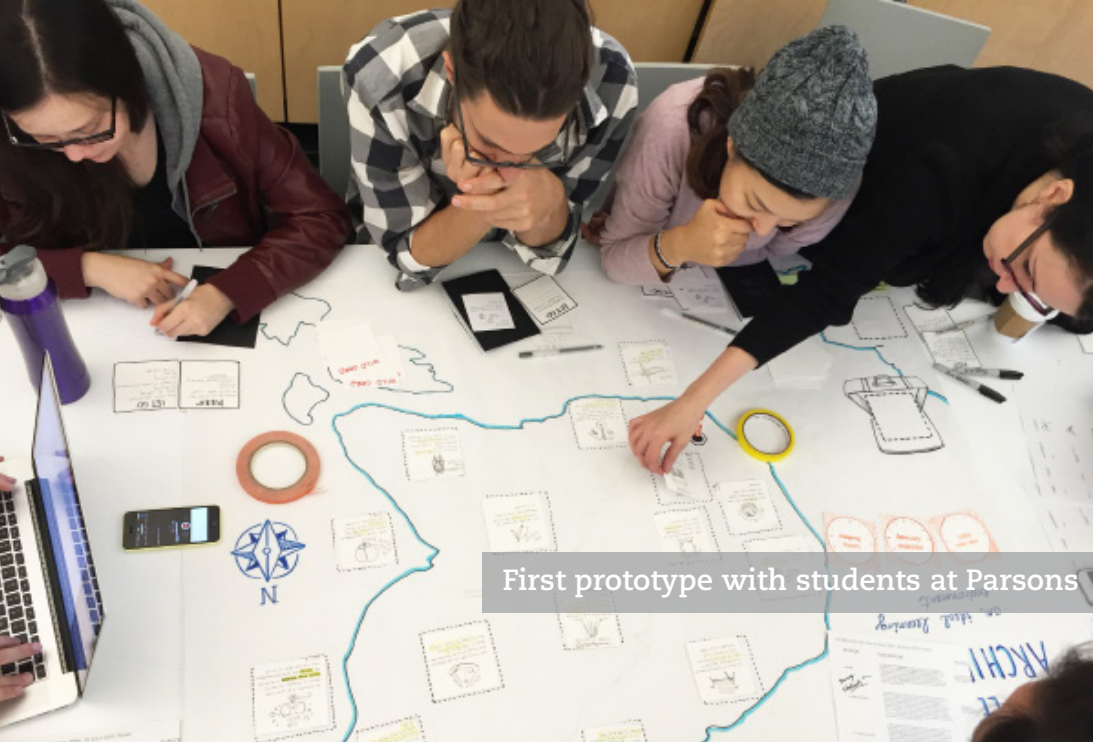
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First prototype with students at Parsons



"It is not the experiences you learn from, but the reflections on the experience"

Kevin Mattingly, Riverdale

Archipelago of Possibilities is a design research project that explores what teachers hold dear in their teaching practices. A short experiential workshop was designed to surface what teachers consider most important in a successful teaching practice, and to consider what teachers' believe stops them from pursuing these practices.

The small pilot is an initial move in the preliminary phase of a larger, multi-year research grant on Innovative Learning Environments and Teacher Change (ILETC) at the University of Melbourne. The ARC-funded grant is focused on how to foster deep learning through teacher training and learning environments.

Archipelago of Possibilities was the outcome of a collaborative project within a graduate studio on "Transforming Mindsets" as part of a MFA in Transdisciplinary Design at the Parsons School of

Design in New York. Professor Lisa Grocott, a chief investigator on the ILETC project, directed the studio and supervised the project. Over a period of 12 weeks we iteratively piloted and refined the workshop three times. By the end of the semester approximately 20 people from various backgrounds had participated in and critiqued the experience. Our participants included expert and experienced teachers from middle school, high school and researchers and administrators from higher education.

Our small role was to begin by examining the aspect of "teacher change" — exploring strategies for making visible the belief systems teachers bring to their practice.

We saw the ILETC project as invested in getting teachers to change their mind frames and pedagogy models. To support this behavior change, we looked at the critical, early stages of how to cultivate behavior change. Taking a human-centered approach to design research, the project is grounded by empathically creating a space to better understand the teacher.

CHALLENGES

We began from a place that learning environments should support a growth mindset, formative feedback, self-reflection, modeling, and be a safe place to make mistakes. Focusing pedagogy on deep learning, rather than surface learning, is of critical importance to creating effective and productive learning environments. However, from our research two challenges stand in the way of immediately advancing these goals:

1. Lack of evidence that the education system can either “prove” or “reward” deep learning teaching strategies.
2. Lack of active learning opportunities where teachers can reflect upon and self-identify what they value and what they would like to learn.

These two motivations must work together and push one another. The extrinsic motivations (the system) currently lean toward teaching to the test. The system itself must support and reward the kind of teaching and learning it wishes to foster. In the United States (where this project was piloted and user-tested) the current education system rewards surface learning and thus encourages teachers away from pursuing deep learning, growth mindset and formative feedback. Essentially, we need to draw out the intrinsic motivations that will drive a teacher’s commitment to teach against the external reward system.

By understanding what teacher’s personally hold dear, we hope to leverage an intrinsic reward system to motivate and propel teaching practices forward.

Teachers must also have experiences that do more than simply disconfirm the mental models they currently hold on to. A personal, lived experience will go further to seeding a willingness to embrace new approaches than evidence-based research.

What is critical in this observation is that these shifts in mindset and teaching practices cannot be abstracted. We cannot ask a teacher to “hold dear” a specific kind of pedagogy or mind frame without providing an experience of it in action. In this same vein, the system also cannot suddenly change its metrics and rewards and then expect changes to be immediately adopted. The change must be introduced in a facilitated manner and there must be an experience of its benefit. Experience is critical to being able to foster curiosity and willingness, and this openness is in turn central to driving sustainable change.



“I’d like my classes to be like a jam session in which students connect with each other, creating something meaningful to them as opposed to trying to meet standards that are mine”

Will Bellaimey, Teacher at Riverdale



"Self-reflection is something I don't do and I know the value of it. I would surely give the time for that"

Kelly Tracy, Teacher at Riverdale



"I need to imagine and invent new maps"

Kevin Mattingly, Riverdale

Looking at these two challenges, our project focused on the mind frames of individual teachers rather than addressing the systemic restrictions and rewards.

Yet the system had to remain part of the conversation. We found that "the system" is often the primary excuse for why teachers held back from exploring new ways to teach. Rather than encourage the idea that "the system needs to change," we wanted to empower individuals to create their own journey and not feel forced to act a certain way by powers out of their control.

Seeking to create a sense of agency amongst teachers, as opposed to being answerable to the system, was the research strategy that most powerfully resonated with teachers.

In order to change mind frames our project focused on the initial phases of behavior change. The hard work of transforming mindsets often

begins with being able to bring specific behaviors into awareness and allow people to recognize what is problematic and beneficial about these behaviors. Our rationale was that if we can build awareness then teachers could be guided through specific actions to motivate behavior change. The intention was to empower teachers to see that they have the skills and opportunity to foster an ideal learning environment. We created self-reflective, experiential learning opportunities to prime teachers to seek new learning strategies.

THE ACTIVITY



Archipelago of Possibilities is a strategy and professional development tool for teachers and educators. Using a travel metaphor, the activity guides participants to reflect on what they hold dear in regards to their teaching practice, look at what is holding them back from achieving their ideal, and create steps to build a future, ideal teaching and learning environment.

This development tool is designed for use in a facilitated, group setting involving one navigator

(facilitator) and 4–8 travelers (participants). The experience takes approximately 50–70 min and is composed of four sequential parts: preparation, travel guide, souvenir and transportation.

In order to create the personal reflection on values and beliefs and personal responsibility for creating their own teaching futures, the process asks the teachers what they value and believe about their best teaching practice best supports deep learning. We discovered that teachers have many values and beliefs they want

to incorporate into teaching practice, but there is a perception they cannot apply these values into the classroom based on systemic and personal limitations.

It begins on the “continent.” The continent is where the teachers currently are and represents their present teaching practice. Across from the continent is the “island.” The island is an imaginary place where ideal learning and teaching happens. The island represents the place teachers want to take their practice, but have not been to yet.



TRAVEL GUIDE >> Our travelers are invited to plan their one-week stay on the island by building their own travel guides. They are asked to choose additional activities they would like to do when they get to the island, things they may not have had available to pack and bring with them. These are skills and practices they would like to develop. The descriptions on the activity cards use the metaphor of the island to build on the mind frames we are trying to encourage. Building the travel guide represents the future. It offers the teachers a glimpse of what else could be possible in their teaching practice and empowers them to create and build that practice. As they build their travel guides, participants are encouraged to share their choices with one another and reflect on what their peers are deciding to add to their practice.

<< PREPARATION The teacher is asked to pack a suitcase and choose what from their current teaching practice they would like to take with them to the island, and what they would like to leave behind. This first part creates an environment where participants must suspend their disbelief. By situating their practice in a metaphorical setting we are removing the immediate, daily struggles of the teaching practice. In this space, teachers are allowed to be more self-reflective and think in an augmented, deeper way about their practice. The fact that the participants are packing for an imaginary trip, allows them to think big, courageously, and be unrestrained about what is their ideal teaching practice.





TRANSPORTATION >> In the final phase, travelers are asked how they will travel to the island to begin their trip. They are to consider questions of urgency, preparation, distance and internal obstacles that keep them from moving forward. The activity asks teachers to think in metaphor about how they can travel from their current practice, “the continent,” to their ideal practice, “the island.” We present four modes of transportation (sailing, flying, swimming and towing) but travelers are highly encouraged to create their own transportation by imagining how what they need to make their journey to the future. We found that creating their own mode of transportation lead to important insights about what keeps individuals away from going to the island. This generative activity created a discursive space to reveal the internal blocks and external struggles that teachers feel stand in their way of getting where they want their practice to go. Determining a mode of transportation also moved participants toward taking action and initiating their own possible journey.

<< SOUVENIR After sharing with each other, travelers are introduced to a specifically curated set of building materials and asked to create a souvenir they will bring back from the future (their trip to the island) and into their current practice. The souvenir becomes both a container of possibilities and a future commitment device. The clear ball is a physical object that allows the teacher to make tangible what is relevant for their practice into something solid and enduring. It also serves as a reminder of the experiences lived on the island, the place of ideal learning and teaching.



“I’d like to sail to the island because in sailing we have some agency while recognizing that some things we can’t control. Because of the wind, I know we are never out of power”

Will Bellaimey, teacher at Riverdale

FINDINGS

A strength of the project is that the invitation to contemplate new mind frames is grounded in a tangible, reflective, actionable journey of behavior change. The design creates a material journey to look at possibilities, while the activities facilitate a bridge to bring what may seem a distant possibility into real world contexts. This approach allowed us to do four specific things.

FIRST, it created an experience that allowed for self-reflection. The teachers' had identified self-reflection as a systemic problem lacking in practice. Providing safe spaces for teachers to be open about exploring their weaknesses and opportunities for growth can lead to environments in which teachers feel supported and open to embracing change and learning opportunities. Current structures inhibit risk taking and peer-to-peer learning among educators. In this culture, it is difficult to embrace the introduction of an innovative learning environment as a catalyst for pedagogical change. Teaching is a very individual practice. Teachers are often alone and there are not formalized spaces for them to observe their peers or collaborative spaces to share and reflect on experiences. Creating a group environment where educators can discuss the choices they have made in the activity leads to fruitful connections and prompted flashes of mentoring and commitments to meet up beyond the activity. Also, part of an ideal learning

environment provides space for students to explore their weaknesses and embrace collaborative learning from their peers. Providing space for teachers to do this work, allows them to model the behavior for their students as well.

SECOND, it creates a space for imagination. In this imaginative space teachers are able to suspend judgment about what is "probable" and rather think about what is possible. They are able to have conversations away from the rote, everyday obstacles and move from being entrenched in old habits to trying on

growth practices. For this, a narrative metaphor is a very powerful tool. The metaphor allows for a creative exploration of what could be and opens up a space to have an abstract yet collective conversation. Thinking in metaphor allows the teachers to be bold and exploratory in their journeys. They are able to go deeper in their observations and experiences with their peers because the conversation is in metaphor. People connect deeply with narratives. By structuring change through a narrative journey, the tool provides both emotional support as well as tangible action toward the imagined future.





THIRD, it uses material making to prompt conversations and promote peer discussion through tangible, yet ambiguous, objects. Through the making of the souvenir practitioners surface their interior biases and implicit assumptions in a way that shorthand, verbal conversations might not. When sharing with one another during the exercise, the ambiguity of the elements creates a space for others to infer different meanings from the design and invites multiple readings of the souvenir. This productive ambiguity also contributes to richer and deeper conversations about

their teaching practices. Creating a physical object as a souvenir allows the teacher to literally hold on to their ideal experience. It provides an opening for teachers to continue the conversation about their journey if they choose to publically display or share the physical object with their students or other educators.

LASTLY, it primed people for future action by creating sticky, contemplative commitment devices. A key goal of the exercise is to help identify and understand the internal blockages that hold a teacher back

from getting to the “island” of their ideal teaching environment. Our research and project identified that while the bureaucratic and external factors are real, difficult challenges faced by educators, embracing personal roadblocks is both empowering and more effective in improving the quality of teaching and the quality of learning environments and outcomes. When asking teachers to take on the challenge of seriously developing and shifting their practice, these contemplative commitment devices could operate as poetic prompts for their future actions.

CONCLUSION

Archipelago of Possibilities represents a shift away from traditional professional development tools for teachers. Most professional development seeks to introduce new teaching practices while paying little to no attention to the mental models the teachers have or what a motivation to change might be. Research-based PD sessions can furthermore be criticized for promoting “outsider” expertise and experienced as patronizing and judgmental for the teachers who are in the classroom everyday. In contrast, Archipelago is informational and generative from the lived experience of the teacher. We find the participants in the activity to be animated, engaged, and interested for the entire activity.

Teachers are open and exploratory and left feeling energized and curious. This supports a cultural shift to creating more participatory, reflective, teacher-led professional development models.

We also experienced how a teacher-led experience created space for important, unselfconscious sharing with one another. This is an indispensable learning capacity to build. For example, one teacher shared she wanted to keep formative feedback with her when she went to the island. A peer in the group was surprised and shared how she has struggled with incorporating

formative feedback in her practice. The colleagues decided to share experiences and learn from one another how to best use this practice after the workshop.

While this is a positive shift the exercise is not necessarily as impactful as it could be. It lacks influential, longer-term follow up. Through this activity we are providing the space to begin to shift mindsets and the inspiration to do so, but teachers left with no resources for advancing what they were now primed to investigate. The activity fails as a standalone piece as it needs additional work to translate the curiosity derived from the journey into future action.

A key element of the activity that is not provided in the material form is the importance of the facilitator. Particularly if educators do not hold deep learning as “dear” parts of their teaching practice, the activity needs more scaffolding to encourage the types of mind frames being encouraged. The group participants were certainly helpful as co-facilitators, but this is amplified with a skilled and practiced facilitator.

The challenge of facilitation is just one factor with respect to the potential to scale the activity, so it might be done with large numbers or remotely. We witnessed the activity work best with groups of around 8 people—large enough to produce significant content for people to learn from others, but small enough for people to all share. The groups were always people who had some social connection to each other, so if it were to scale to larger groups from multiple schools other factors would need to be considered to refine the experience.



From a diagnostic perspective, the activity provides significant information on what it is that teachers think is important and what they would like to be practicing. However, as it stands it does not provide useful insight into the current mind frames being practiced in the classroom, nor the participant's current comprehension of deep learning.

The project itself may not prove to be of relevance to latter stages of the research, yet methodologically the process of iteratively piloting an activity with the primary stakeholders over a period of months was an invaluable exercise. As the ILETC research unfolds the project serves to remind us that authentic, sustained teacher change will ultimately be driven by a teacher's intrinsic motivation to change. This observation in turn underscores the importance of beginning from a place of empathy for the teachers'.

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