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Authentic Learning: A Reflection of Bicycle Adventure

David Ni
Franklin University, xiaopeng.ni@franklin.edu

Gavin Ni
Franklin University

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David Ni & Gavin Ni, Franklin University

Purpose

The purpose of this showcase is to demonstrate the importance of holistic, significant, and authentic learning experience. We also intended to provide a framework to assist instructors and parents to carry out enriched, authentic adventure learning.

Background

During past three decades, many educators have turned their attention to situated cognition and started to explore strategies of authentic learning (e.g. Brown, Collins, & Duguid, 1989; Herrington, Oliver, & Reeves, 2003). The reason is that authentic learning connects practice and theory and provides learners an opportunity to apply knowledge in the real life contexts. Contextual factors enables students to deal with complex issues in reality and therefore results in higher-order thinking, like synthesis, analysis, and evaluation, and longer retention and transfer of knowledge. The Chinese idiom, "fighting only on paper" which refers to a knowledgeable strategist who failed in the real war against enemy implies the importance of authentic learning where knowledge is not inert on paper, but a tool to change the world.

A new teenager on the road

Story

Sunday noon, 24 June, 2018, we started a four-day bike adventure from Columbus to Cleveland. We travelled total of about 200 miles, approximately 80% along the Ohio-to-Erie trail and 20% of our trip on the road. We passed through metropolitan area, suburban, farmlands, rural areas, nature preserves, Amish heritage areas, and regional and national parks. We saw the history of the Amish, canals, railroads, and environmental protection efforts as well. It was also a great opportunity for father-son bonding. David also had toured cross-country many years ago. The experience went way beyond the cycling itself, but learning, growing, and self-actualization, which makes it a case for learning analysis.

Natural Impulses for learning

Adventure Process for learning
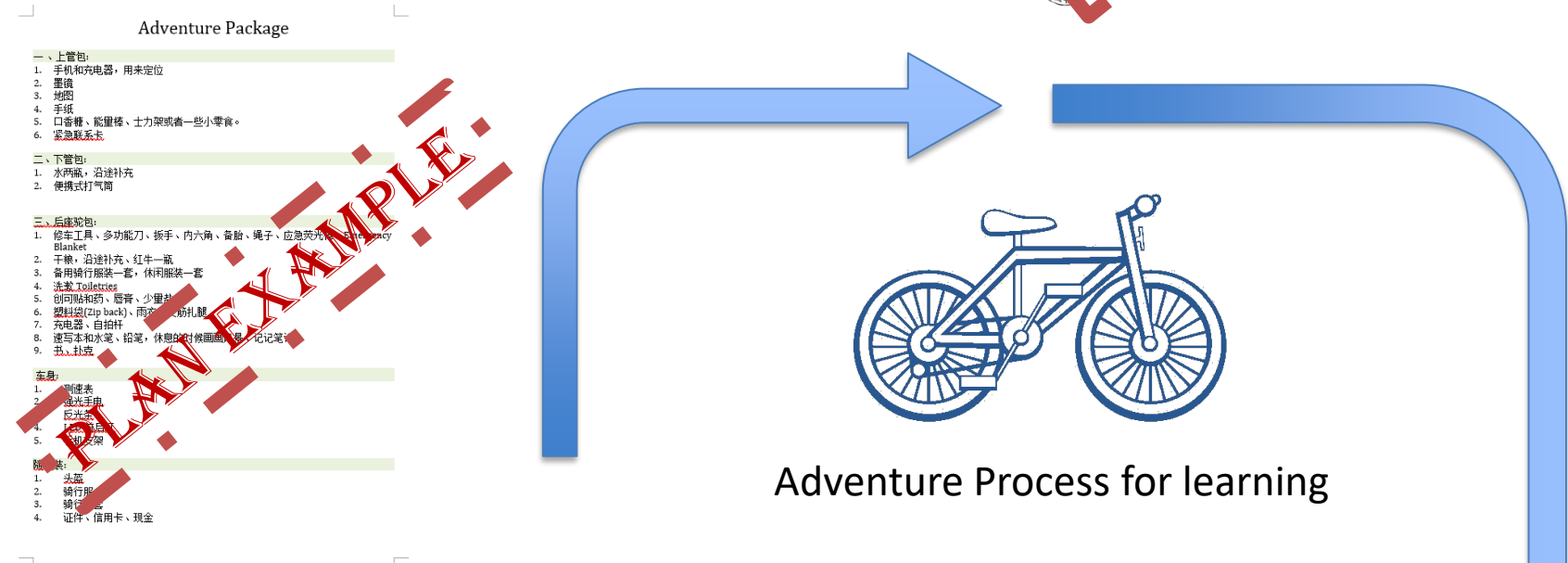
John Dewey (1943) emphasized four natural impulses for learning and growing: communication, inquiry, construction, and expression. These dominant desires are most important learning opportunities, and the educator should find, utilize, and promote them through relevant activities. We illustrate detailed subcategories and corresponding examples in Table 1.

Table 1. Activity Perspective and Examples

Activity	Subcategory	Measures	Examples
Inquiry	Data Collection Data Access Data Analysis	Efficiency Applicability Diversity	Collect information about attractions, lodging, restaurants, and then organizing them into an excel sheet.
Communication	Delivery Interaction Collaboration	Interaction quality Participation Role Responsibility	Ask an expert about road conditions through e-mail.
Construction	Visualization Management Organization Creation	Practicability Creativity Action	Create a package list for the journey.
Expression	Text and Writing Digital Media Oral Report	Themes Structure Readability	Create a poster to show the adventure experience.

There are many types of activities as we described above. How are these activities organized in a cohesive experience? Adventure process provides a goal-oriented way to organize all these learning activities as illustrated in Table 2.

Table 2. Adventure Process

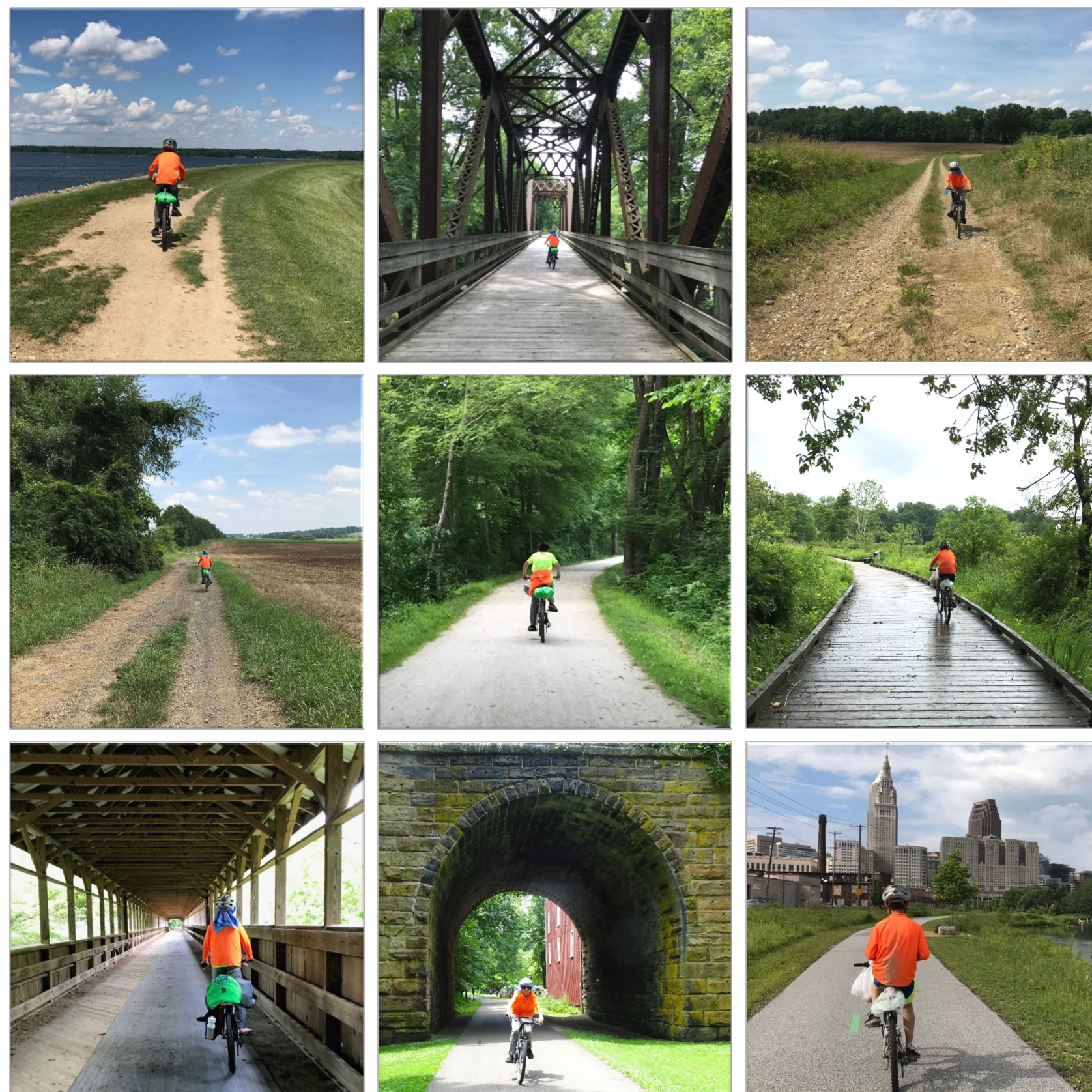| Adventure Process	Subcategory
Plan	Determine the nature of the adventure Clarify the context of the adventure Determine and list the tools needed and tasks to be completed
Implementation	Form a strategy to implement the adventure Sequence the procedure and stages Collect the useful information Integrate information and real world experience
Argument	Share your experience with others Reflect the gain and loss in the adventure, and the aspects to be improved in the future.

A Conceptual Model for Adventure Learning

Learning happens during interactions between the individual and the environment, and interactions are embodied in formats of activity (communication, inquiry, construction, expression). Activities activate a natural intrinsic tendency to make sense of the world seeking consistency and coherence. Activities also make the idea, methodological knowledge, and thinking habit explicit. These activities are organized in a process of adventure. A conceptual model has been provided in Figure 1 to illustrate two dimensions for consideration in adventure learning.

Figure 1. Two dimensions for consideration in adventure learning: Activity dimension and adventure process dimension.
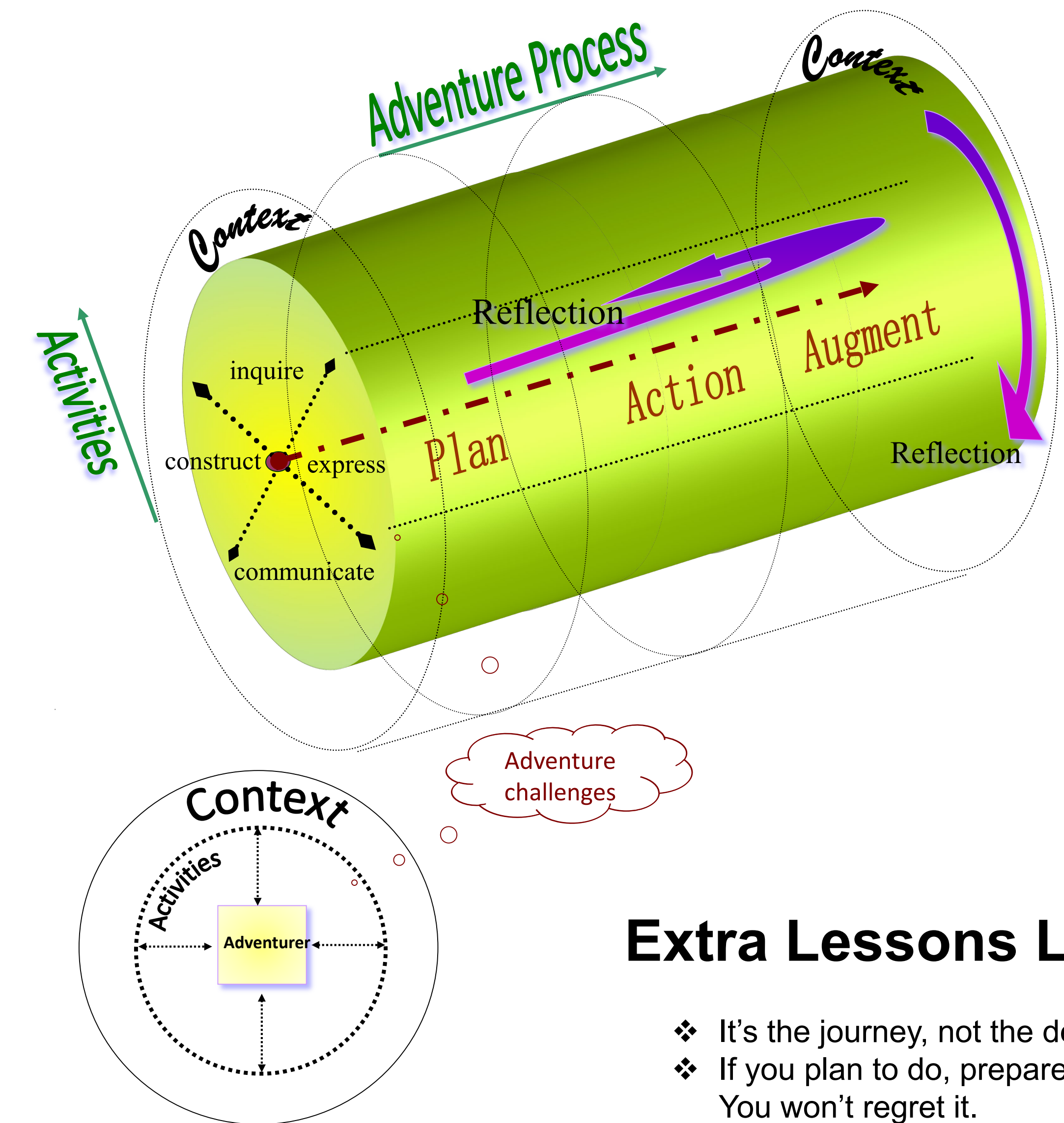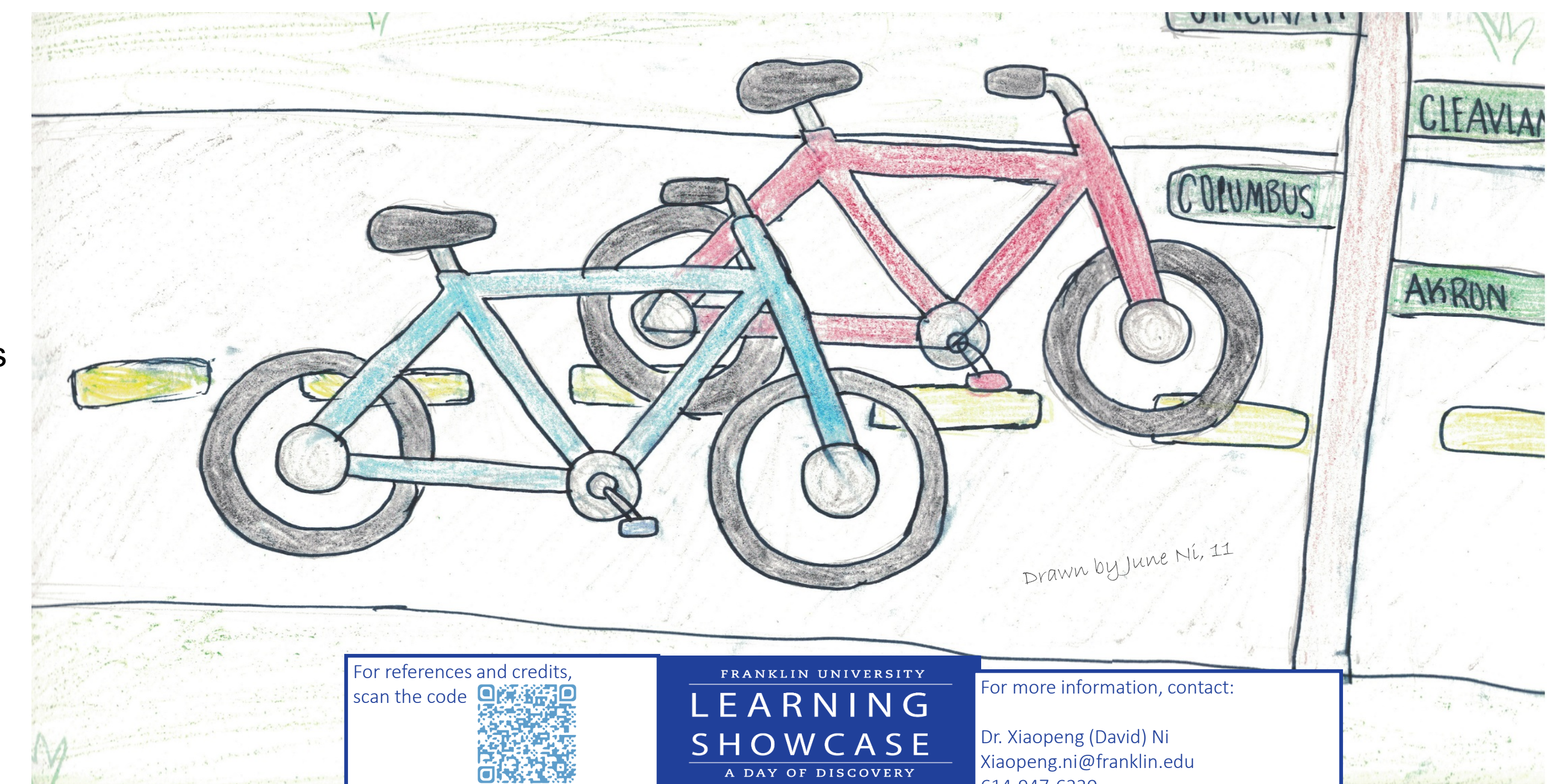
Extra Lessons Learned

- ❖ It's the journey, not the destination.
- ❖ If you plan to do, prepare and do it. You won't regret it.
- ❖ People are overwhelmingly nice.
- ❖ Take more pictures of the people, instead of the scenery.

Drawn by June Ni, 11