WABASH CENTER
For Teaching and Learning in Theology and Religion

Tomato Plants and Learning Ecologies

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We live in a world fraught with compartmentalization. Work outfits vs. weekend wear. Neighborhood friends vs. work colleagues. Convocation vs. chapel. I get it. We like to orient our world based on neatly stacked boxes where we can stuff the various facets of our lives. The problem is this doesn't reflect the design principles that surround us or the various environments in which we live and operate. We know from a study of nature that everything is connected to everything else. Callenbach reminds us that there is a mutualism or symbiotic relationship in natural ecologies that prevents compartmentalization. He asserts, "Nothing alive exists in isolation from its ecological context. . . . Symbiotic relationships . . . are a universal way in which life forms survive and coexist."[1] Each of the various ecological elements mutually interconnect with one another. As Taylor reminds us, "Apparently, there is little rugged individualism in nature."[2]

A few summers ago, I took up gardening. More specifically, I attempted to grow my favorite tomato variety, Celebrity. I found planters under the deck with some soil already in them and plopped my seedlings into those boxes. I found a shady spot by the house where they could thrive. I finished my project and waited to see what would happen! However, the saying "out of sight, out of mind" very much applied to my situation. They were out of sight, so watering wasn't a priority. I barely even tended to them other than to impatiently check for growth. You can probably guess what happened to my hopes of a plentiful tomato crop. I discovered that tomatoes need a lot of sunlight. They also need regular watering, proper soil nutrition, and

ongoing tending. This includes removing suckers, staking the plants, and checking for blossom end rot. Everything in that tomato's ecosystem impacted everything else. Sadly, we didn't eat a lot of tomatoes that summer, but I learned some important lessons: nothing thrives in isolation and intentionality is critical to growth.

These lessons from the natural world apply to teaching and learning. We may think that teaching is a disconnected enterprise, but just like the tomato garden, it is part of a larger ecosystem or constellation of interconnected elements. Our students are connected to one another in a variety of ways including their families of origin, friends, neighbors, co-workers, faculty, staff, communities of faith, and to the broader world. They bring all these social connections and relationships like checked baggage to our classrooms. Not only that, they also take what they have learned back to their respective relationships, responsibilities, and even life contexts. The reciprocal dynamic at work in all natural, social, spiritual, and learning ecologies nurtures growth because of the impact bi-directional engagements have on the teacher and learner.[3] The learner isn't an isolated element in the classroom but rather brings a number of connections from their social networks, life experiences, ministry opportunities, and adult responsibilities. Bronfenbrenner used the language of nested ecologies to describe the various levels or environments in which a person engages and develops.[4]These complimentary ecosystems interconnect with each other as a way of facilitating and stimulating mutualistic growth.

When learning is connected to the student's multi-contextualized realities, we see impact not just in test scores or nicely articulated papers but also in a holistic approach to navigating the world around them. In one class I teach, my students learn how to develop and use a modified form of Hartman's ecomap[5] called an ecoplan. In this plan, they must identify a daily strategy to address an activity or a way of being, centered around all six dimensions of a whole person formation model, (physical, mental, emotional, social, moral, and spiritual) first proposed by Ted Ward.[6] For example, on Mondays, they will commit to some form of physical activity, intellectual exercise, emotional engagement, social practice, moral obligation, and spiritual discipline. Something similar is identified for each day of the week. At first it seems overwhelming to them but once they start implementing their plan, they're often amazed at how easy it is to incorporate an integrated approach to how they live. They begin to understand that what happens in one of the dimensions impacts and is impacted by all the others. They see that proper attention to physical activity has an impact on emotional health. Similarly, intentionality with respect to spiritual practices has an impact on their relationships to one another, and healthy emotional habits may influence mental health as well.

In all that we teach, we should be mindful that there is an inherent and inescapable connection between the content we deliver, the teaching that we facilitate, and the way in which students live out what they are learning. When our teaching accommodates these human ecosystem dynamics, we create a far richer learning experience and one that potentially creates lasting impact. Teaching, from this perspective, shifts from content management to formative integration of content.

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Once we understand that the educational compartments we construct have to be permeable and connected to others, we have an opportunity to radically reshape teaching and learning paradigms. Here's to a bumper crop of tomatoes *and*integrated learners!

Notes & Bibliography

[1] E. Callenbach, *Ecology: A Pocket Guide* (University of California Press, 2008), 134.

[2] W. Taylor, "Significance of the Biotic Community in Ecological Studies," *The Quarterly Review of Biology* 10, no. 3 (1935): 296.

[3] S. Lowe, and Lowe, M., *Ecologies of Faith in a Digital Age: Spiritual Growth through Online Education* (IVP Academic, 2018).

[4] U. Bronfenbrenner, *The Ecology of Human Development: Experiments by Nature and Design* (Harvard University Press, 1979).

[5] A. Hartman, *Finding Families: An Ecological Approach to Family Assessment in Adoption* (Sage Publications, 1979).

[6] T. Ward, *Values Begin at Home* (Victor Books, 1989).

https://www.wabashcenter.wabash.edu/2025/07/tomato-plants-and-learning-ecologies/