Conceptual Territory I: Interdisciplinarity Essay

Dachao Sun

Graduate School of Education, University of Pennsylvania

EDUC 606: Literacy Research Theory and Practice

Dr. Alesha Gayle

May 22, 2022

Conceptual Territory I: Interdisciplinarity Essay

Disciplines can be viewed as differentiable units and categories of knowledge by organization, and they are the foundation of education and research. (why jump from what 'disciplines' are to astronomy—one of the most primitive, earliest disciplines is in the.. need to introduce what you're talking about) The field of astronomy initially began in the 1000 B.C.E. when Assyro-Babylonians made astronomical observations, and in the late nineteenth century psychology came into formation upon the study of sensory experiences by scientists. We as human society learn and thrive with these cumulative, structured disciplines as we **move** along in history. About two centuries ago, *interdisciplinarity* came about as "new, relational configurations" in which different disciplines interact and get reorganized (Moran, 2010). In today's academia, we frequently encounter existing and newly arising interdisciplinary fields, for example, biophysics, computational/quantitative psychology, translational medicine, and neuroscience, to name a few. Interdisciplinarity sprang from the clash (TBD: a more positive word, such as 'first encounter') between ideas and disciplines. Meanwhile, interdisciplinarity is sometimes discussed along with two other similar, complementary concepts: multidisciplinarity which is the combination of multiple academic disciplines with little interaction, and transdisciplinarity which is the multiple disciplines' transcending each other and forming new holistic knowledge (Caldwell, 2015). (TBD: Describe what interdisciplinarity is – a general sentence telling the rest of the essay. – "In short, interdisciplinarity is the leverage of multiple disciplines where they are put together and complement each other to create knowledge.")

The field of literacy is interdisciplinary and is influenced by three major disciplinary areas, which are linguistics, English studies, and anthropological studies (Gadsden, 2020). First, linguistics, the scientific study of human languages (information not vital to the sentence's

meaning), provides effective ingredients to language acquisition, reading comprehension and beyond. The phonology branch of linguistics tells us about how sound is produced, which enables us to have more accurate pronunciation, and knowing the 44 phonemes known as the unique sounds of English language helps us better distinguish between *symbols of sounds*; understanding the different phonemes can help students to read/write better (depth of the language).   Linguistics and literacy are both inherently interdisciplinary in that the language which we used to convey information is not restricted to a single discipline, and often it is various disciplines that "assemble" to address a certain topic (Frawley, 1982, p.2). Developmental psychologist David Olson used the word "utterance" for the relation between meaning and language (Olson, 1977). Second, English studies (cultures, history, human psychology, stories… full of anthropology, without naming them—it studies genres, collection of society-past, present, future.. 'English' might refer to 'literature', the study of **stories**.) is source of content for the social practice of literacy: the study of literature genres, composition and rhetoric, and English-language literary works. Lastly, literacy has been associated with anthropological studies since the late nineteenth century in which literacy as the social practice relates to human consciousness and social life (Turin and Hanks, 2021). Anthropological assumptions are at the root of the *autonomous model* and *ideological model* of literacy with a shift toward the latter (Street, 1984); anthropology examines the biological, cultural and societal aspects of humanity, and is central to the fundamental human differences or "great divides" for which literacy has a crucial role in (Collins and Blot, 2003). In the 1960s the earlier works by English social anthropologist Jack Goody explained the connection between literacy and primitive forms of human societies (Goody, 1968).

As we learn and conduct a certain disciplinary practice or research, having an interdisciplinary "mindset" and leveraging knowledge from multiple fields will certainly inspire our thinking and arguably enhance our understanding, enabling us to do better works. (TBD: connect discipline to 'intelligence')   In the study of human intelligence, an important common benchmark for intellectual progress and success, (it is when) knowledge is implemented and put into practice, intelligence is inherently instantiated, and how we interpret intelligence turns out to **also be** potentially interdisciplinary (end of an idea). Our skills and knowledge are not a one-way lane but rather complex and intrinsically social. Over three decades ago, a theory called the *theory of multiple intelligences* was put forward by psychologist Howard Gardner, suggesting that intelligence ought not to be viewed as a general or "overall" intelligence, but rather of various types, by which Gardner identified for instance "interpersonal intelligence" (Gardner, 1983). The complement of it would be the intrapersonal intelligence which is commonly reflected in individual work and development. There is also another important type, *linguistic intelligence*, through which people make meanings through note-taking and reading. In this regard, to look at intellectual capability by interdisciplinary standards leads us to a more functional, contextual approach to knowledge. What we acquire as skills becomes our specialties, and various specialties in turn interactively construct other new types of intelligence that continues to inspire us and enrich interdisciplinary fields.   TBD: People learn in different areas … creativity, learn better when we see and do things visually; while others learn by hearing, etc.

Generations of humbled scientists and practitioners over the course of civilization have conducted systemic studies, structuring them into major disciplines (such as) that we know today as agriculture, chemistry, medicine, economics, sociology, mathematical and physical sciences,

and of course philosophy. By accident, disciplines *came* to each other perhaps semi-automatically in their respective trajectories. However, by design, it was the interactive, counterintuitive *making* of interdisciplinarity by people that has instilled disciplines toward new realms which, furthermore, broadened our horizons. Disciplines then began to speak to each other, enriching their constituents and benefiting those who participated and made contributions along the process. Interdisciplinarity (plays a key role) is significant in that it removes isolation to a single field of knowledge and promotes thinking, doing, and inquiries into the world.

References

Caldwell, W. (November 23, 2015). Multi/Inter/Trans – disciplinary, What's the Difference?

    PFP: The Official GRAD 5104 Blog. Available at

    http://blogs.lt.vt.edu/grad5104/multiintertrans-disciplinary-whats-the-difference

Collins, J. and Bolt, R. K. (2003). *Literacy and Literacies: Texts, Power, and Identity*.

    Cambridge University Press.

Frawley, W. (1982). *Linguistics and Literacy*. Springer.

Gadsden, V. (June 2, 2020). Launchpad: Dr. Gadsden on Interdisciplinarity. Graduate School of

    Education at the University of Pennsylvania.

Gardner, H. (1983). *Frames of Mind: The Theory of Multiple Intelligences*. New York: Basic

    Books.

Goody, J. (1968). *Literacy in traditional societies*. Cambridge: Cambridge University Press.

Moran, J. (2010). *Interdisciplinarity*. London: Routledge.

Olson, D. R. (1977). From utterance to text: The bias of language in speech and writing. *Harvard

    Educational Review*, 47(3), 257–281.

Street, B. V. (1984). *Literacy in Theory and Practice*. Cambridge [Cambridgeshire: Cambridge

    University Press.

Turin, M. and Hanks, R. (2021). Literacy. In *The Cambridge Encyclopedia of Anthropology*,

    edited by Felix Stein. Online: http://doi.org/10.29164/21literacy.