

The Concepts of Disciplines and Interdisciplinarity and Interdisciplinary Inspirations in Teaching ESL/EFL

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Résumé : Le monde disciplinaire devient un terrain propice à l'émergence de l'interdisciplinarité plutôt qu'une force réagissant contre elle. Malgré les arguments relatifs aux différences fondamentales entre disciplinarité et interdisciplinarité, la plupart des chercheurs parviennent à un terrain commun pour soutenir la survie des disciplines et de l'interdisciplinarité dans un monde disciplinaire. Enseigner l'anglais comme langue seconde ou comme langue étrangère est un exemple de problème complexe qui était traditionnellement perçu comme une recherche de la meilleure méthode. Le développement de ce domaine incite ses praticiens à explorer d'autres disciplines afin d'apporter de nouvelles perspectives (l'approche basée sur l'usage de la littérature en est un exemple).

Mots clés : disciplines ; accumulation de connaissances ; interdisciplinarité ; intégration ; dépassement des frontières ; pratiques ; acquisition ; ESL, EFL ; approche fondée sur la littérature ; modèle d'alphabétisation

Abstract: Disciplinary world is a nursing ground for interdisciplinarity instead of a force reacting against it. In spite of the arguments regarding the fundamental differences between disciplinarity and interdisciplinarity, most researchers arrive at a common ground to support the survival of disciplines and interdisciplinarity in a disciplinary world. Teaching ESL/EFL is an example of complex problem which had been traditionally seen as a search for the best method. The development in this field inspires its practitioners explore in other disciplines to bring new insights (e.g. the literature-based approach is an example).

Keywords: disciplines; knowledge accumulation; interdisciplinarity; integration; boundary-crossing; practices; teaching; acquisition; ESL; EFL; literature-based approach; literacy model

There are numerous arguments regarding the definition of interdisciplinarity. Although many attempts have been made, interdisciplinary researchers have not settled on any universal definitions. Given its wide range of objectives, interdisciplinarity is a concept of wide appeal as well as one of wide confusion.¹

According to Klein, interdisciplinarity roots in the ideas of a unified science, general knowledge, synthesis, and the integration of knowledge.² Knowledge could be misapplied because people might not be knowledgeable enough to solve problems across disciplines.³ In this knowledge explosion era, solving problems requires “better understanding of the relations between the fields of knowledge.”⁴

For years, disciplines work like an engine of knowledge production. When there are crisis and gaps detected in disciplines, an interdisciplinary way of thinking may be consulted to suggest new solutions. Interdisciplinarity can neither be understood as a typical discipline nor without disciplines. To clarify the two concepts and explore the distinctions between them, a few words on knowledge formation can be a starting point.

Meanings of Disciplinarity

The emergence of disciplines could be traced back to the ideas of ancient philosophers. Aristotle, for example, organized different subjects into a hierarch in terms of theoretical and practical.⁵ After the eighteenth century, the pressure

¹ Julie T. Klein, *Interdisciplinarity: History, theory, and Practice* (Detroit: Wayne State University Press, 1990).

² *Ibid.*

³ Robert Frodeman, “Introduction,” in *The Oxford Handbook of Interdisciplinarity*, ed. Robert Frodeman, Julie T. Klein, and Carl Mitcham (Oxford: Oxford University Press, 2010), 5-6.

⁴ *Ibid.*, xxx.

⁵ Joe Moran, *Interdisciplinarity, 2nd ed.* (London: Routledge, 2010).

of data collection and problems of information overload provided a condition for disciplinary differentiation.⁶ Scholars tend to group in disciplinary communities and associations, and they regard science as specialization and popularization.⁷

The formation and evolution of disciplines is self-referential, as Weingart points out, and these disciplines have factual and social identities.⁸ Disciplines are social communities and education is one of its essential functions.⁹ As the result of internal development and the dramatic growth of knowledge, disciplines as well as scholarly associations change to internal specialization.¹⁰

Based on a historical review, Weingart explains disciplines as a means to categorize knowledge,¹¹ similar to which, Meyer argues that knowledge is not separable from disciplines and disciplines specialize by subject, a synonym of knowledge domain.¹² In the history of knowledge formation (at least in the European context), the emergence of disciplines used to represent an advanced force, and the boundaries in between created orders out of chaos. Disciplinary specialization is a further development and it is necessary because “our collective knowledge increases beyond our ability to keep up.”¹³

⁶ Peter Weingart, “A Short History of Knowledge Formations,” in *The Oxford Handbook of Interdisciplinarity*, ed. Robert Frodeman, Julie T. Klein, and Carl Mitcham (Oxford: Oxford University Press, 2010), 5-6.

⁷ *Ibid.*, 5.

⁸ *Ibid.*, 8

⁹ *Ibid.*

¹⁰ *Ibid.*, 10

¹¹ *Ibid.*

¹² John W. Meyer, “The Effects of Education as an Institution,” *American Journal of Sociology* 83, no. 1 (1977): 29.

¹³ Jana Duncan, “Interdisciplinary Research on the Impact of Summer Break from School on Children with Severe Autism and Their Parents,” in *Perspectives on Interdisciplinarity*, ed. Ali Reguigui (Sudbury: Laurentian University of Sudbury, 2013), 193.

Unlike Weingart's knowledge formation perspective,¹⁴ Chettiparamb provides a different way of understanding and distinguishing disciplines.¹⁵ She puts forward three standpoints intending to cover various general characteristics of disciplines:

The first emanates from a scientific-epistemological approach and distinguishes between concepts, methods and ways of knowing that are specific to a discipline. The second discerns ways in which the disciplines come to be socially embedded and practically realised with respect to a larger external society. The third takes a more organizational view, focusing on how knowledge is institutionally organised and structured.¹⁶

The first standpoint sees disciplines as internal frameworks of science. Disciplinary research asks questions about objects, phenomena, subject matters, methods, techniques, procedures, theories, and applications. In this vein, Chandler speaks of a discipline as a field of study, or one's academic specialty, and describes its practices as involving "styles of thought, that is, procedures for indentifying and gathering evidence, ways of posing and sequencing questions, conventions for distinguishing productive from unproductive questions, and practices for establishing sound demonstrations, building arguments, citing authorities, or making cases."¹⁷

The second standpoint refers to disciplines as "social constructs" that are relevant to an array of social elements, especially the human factor – practitioners in the same academic territory. Apostel claims that a discipline can only be defined by indicating a group of persons, their actions, interactions,

¹⁴ Weingart, "A Short History of Knowledge Formations."

¹⁵ Angelique Chettiparamb, *Interdisciplinarity: A Literature Review* (Southampton: The Higher Education Academy, Interdisciplinary Teaching and Learning Group, 2007), 3-6.

¹⁶ *Ibid.*

¹⁷ James Chandler, "Introduction: Doctrines, Disciplines, Discourses, Departments," *Critical Inquiry* 35, no. 4 (2009): 723.

communications, methods and educational backgrounds.¹⁸ In a broad sense, “a discipline also functions as a vehicle for the reproduction of social structures while in turn having its social structures reproduced by them.”¹⁹

The third standpoint proposes an essential function of disciplines – “link knowledge production to organizational structures found in universities.”²⁰ Represented by disciplines, similar departments can be interchanged in universities so that within disciplines “hiring, tenuring, promoting, advising, granting degrees, placing students and so forth are, in a great many important respects, the same.”²¹ Similarly, Chandler considers disciplines institutional arrangements, but he further highlights that “a disciplinary system can evolve beyond the structure – that of the academic departments.”²²

The meanings of disciplines have been explored by an array of researchers. Though it may seem ambitious to give a big and grand definition, two threads can be discerned. To address disciplinarity as intellectual structures, Salter and Hearn’s,²³ cited in Shailer,²⁴ defines disciplines as “recognizable communities of scholars that develop conventions governing the conduct of research and its adjudication...[that] rely upon

¹⁸ Leo Apostel, “Conceptual Tools for Interdisciplinarity: An Operational Approach” in *Interdisciplinarity: Problems of Teaching and Research in Universities*, ed. Leo Apostel (Paris: OECD, 1972), 146.

¹⁹ Ludwig Huber, “Editorial,” *European Journal of Education* 27, no. 3 (1992): 193.

²⁰ Chettiparamb, *Interdisciplinarity: A Literature Review*: 5.

²¹ Stephen Turner, “What Are Disciplines? And How Is Interdisciplinarity Different?,” in *Practising Interdisciplinarity*, ed. Peter Weingart and Nico Stehr (London: University of Toronto Press, 2000), 46.

²² Chandler, “Introduction: Doctrines, Disciplines, Discourses, Departments,” 734.

²³ Liora Salter and Alison Hearn, *Outside the Lines: Issues in Interdisciplinary Research* (Montreal: McGill-Queen’s University Press, 1996).

²⁴ Kathryn Shailer, *Interdisciplinarity in a Disciplinary Universe: A Review of Key Issues* (Toronto: Ontario College of Art & Design, 2005), 3.

technical language and particular methods of analysis... [and that] develop standards of evaluation specifically suited to their methodology and objects of analysis.”

To highlight the social function of disciplines, Weingart and Stehr’s,²⁵ cited in Shailer,²⁶ present a different picture in describing disciplinarity:

[...] disciplines are not only intellectual but also social structures, organizations made up of human beings with vested interests based on time investments, acquired reputations, and established social networks that shape and bias their views on the relative importance of their knowledge. As social organizations, disciplines participate in and contribute to conflicts over political, economic, legal, and ethical decisions, over the distribution of resources and life chances. In all these functions, scientific disciplines constitute the modern social order of knowledge, and the order of knowledge is in this sense a political order as well.

Changes in Disciplinarity

Since knowledge accumulation is never-ending, disciplines as an established order of knowledge are not staying static wholes. According to Dogan and Pahre, whose study was based on science innovation and its relation to disciplines, disciplines will continue to evolve after internal specialization and go through a circle of fragmentation, hybridization, institution, and back to specialization.²⁷

Chettiparamb interprets the trend of fragmentation as when an established framework is not capable enough to cover the entire field and the core discipline becomes too crowded, and that of hybridization as when fragments in a discipline

²⁵ Peter Weingart and Nico Stehr, *Practising Interdisciplinarity* (Toronto: University of Toronto Press, 2000).

²⁶ Shailer, *Interdisciplinarity in a Disciplinary Universe: A Review of Key Issues*: 3.

²⁷ Mattei Dogan and Robert Pahre, *Creative Marginality: Innovation at the Intersections of Social Sciences* (Oxford: Westview Press, 1990).

combine other fragments from other disciplines and lose contact with fragments in the parent discipline.²⁸ A notable comment on the circle made by Chettiparamb is that in spite of the dynamic nature of fragmentation and recombination, “disciplines still possess and retain characteristics that make them identifiable as disciplines.”²⁹

Another stream studying disciplinary changes comes from a perspective of higher education. Clark notes that “it is the discipline mode of organization that has rendered higher education [...]”³⁰ Although disciplines representing academic departments have gained the authority and become the orthodox in higher education, they will not stop changing and evolving. Based on a close study of an American model, Chandler points out two facets of the changing state: “the development of new fields” and “institutional innovations.”³¹

The former, which arises from inside disciplinary practices, may address “a newly important topic, a new body of material, a new approach to topics that link existing disciplines, a high degree of reflexivity of the existing shape of the disciplines.” The latter refers to the emergence of “new majors, new organizations, new journals, new humanity departments, new forms of intramural association, and new ways of housing and fostering research,” which reveals the responses from the outside.³² All the new trends are celebrated as “interdisciplinary initiatives” by Chandler.³³

The first stream suggests that as more knowledge is produced, there should be more connections rather than isolations

²⁸ Chettiparamb, *Interdisciplinarity: A Literature Review*.

²⁹ *Ibid.*, 7.

³⁰ Burton R. Clark, *The Higher Education System: Academic Organization in Cross-national Perspective* (Berkeley: University of California Press, 1986), 30.

³¹ Chandler, “Introduction: Doctrines, Disciplines, Discourses, Departments,” 737.

³² *Ibid.*

³³ *Ibid.*

that are detected between knowledge frameworks. It is due to the connections that hybrid disciplines took place. The problem is that once a newly combined discipline is institutionalized, it will soon go back to internal specialization and become a distinguished discipline. No wonder Becher and Trowler,³⁴ cited by Repco,³⁵ criticize disciplines as being “separate tribes with cultures and languages.”

The second stream is also observed by Weingart and Stehr when they comment that “Something quite fundamental is happening to the established order of knowledge...” and “the organizational matrix of disciplines is beginning to dissolve.”³⁶ Similar to Chandler’s view, they see the changing state in disciplines as a nursing ground for interdisciplinarity instead of a force reacting against it.

Definitions of Interdisciplinarity

Among all attempts to define, four aspects can be identified in the discourse of interdisciplinarity.

First, multi-disciplines and integration. Interdisciplinarity is not an orthodox organizational structure in universities. Its practitioners originate from a good variety of disciplinary backgrounds and view interdisciplinarity from multiple disciplinary lenses. Szostak defines interdisciplinarity as “the integration of insights from multiple disciplines in order to better understand some complex topic that is addressed from different perspectives by different disciplines.”³⁷

Interdisciplinary integration means the “activity of critically

³⁴ Tony Becher and Paul R. Trowler, *Academic Tribes and Territories* 2nd ed. (Buckingham: The Society for Research into Higher Education & Open University Press, 2001).

³⁵ Allen F. Repco, *Interdisciplinary Research: Process and Theory* (Los Angeles: Sage Publications, 2008), xii.

³⁶ Weingart and Stehr, *Practising Interdisciplinarity*: xi.

³⁷ Rick Szostak, “The State of the Field: Interdisciplinary Research,” *Issues in Interdisciplinary Studies* 31(2013): 44.

evaluating and creatively combining ideas and knowledge to form a new whole or cognitive advancement.”³⁸ A similar term for integration used by Klein is synthesis.³⁹

In order to fully answer critical questions and facilitate application of knowledge, scholarly communities have growing interests in combining skills and perspectives of multiple disciplines.⁴⁰ Identifying the ways integration takes place, OECD (1998) proposes the range from simple communication of ideas to the mutual integration of organizing concepts, methodology, procedures, epistemology, terminology, data, and organization of research and education in a fairly large field.⁴¹

To examine the relations between disciplines, Shailer,⁴² citing Salter and Hearn’s,⁴³ makes the following distinctions:

- “Multidisciplinarity” is defined as a juxtaposition of various disciplines, sometimes with no apparent connection between them.
- “Pluridisciplinarity” is defined as a juxtaposition of disciplines assumed to be more or less related: for example, mathematics and physics.
- “Transdisciplinarity” is a process of establishing a common system of axioms for a set of disciplines.
- “Interdisciplinarity” is defined as the interaction between two or more disciplines. This interaction may range from the simple communication of ideas to the mutual integration of organizing concepts, methodologies, procedures, epistemology, terminology, data, and the organization of research and education in a fairly large field.

³⁸ Repko, *Interdisciplinary Research: Process and Theory*: 116.

³⁹ Julie T. Klein, *Crossing Boundaries: Knowledge, Disciplinarity, and Interdisciplinarity* (London: University of Virginia Press, 1996).

⁴⁰ Sally W. Aboelela et al., “Defining Interdisciplinary Research: Conclusions From a Critical Review of the Literature,” *Health Services Research* 42, no. 1p1 (2007): 329-46.

⁴¹ Organisation for Economic Cooperation and Development, *Interdisciplinarity in Science and Technology: Directorate for Science, and Industry* (Paris: OECD, 1998).

⁴² Shailer, *Interdisciplinarity in a Disciplinary Universe: A Review of Key Issues*: 2.

⁴³ Salter and Hearn, *Outside the Lines: Issues in Interdisciplinary Research*.

Second, Complexity. Morin,⁴⁴ cited by Duncan,⁴⁵ defined complexity as not only the quantity of units and interactions of information, but also “uncertainty, indetermination, and random phenomena”, which represents the current situations of the real world. Newell suggests that only questions about complex systems are suitably interdisciplinary.⁴⁶

Boulding’s theory presents a hierarchical arrangement of complexity, which, from the lower to the higher, knowledge accumulates and the level of complexity increases.⁴⁷ An example of a lower level is mathematics which is highly abstract and has no connections to the real world. As it is getting more complicated, plants and animals are studied. When human and human society are involved at higher levels, relevant problems are turning to be complex, and disciplinary knowledge is more interrelated. The implication is that at a higher level of complexity, disciplines as identifiable individuals seem less capable to approach real life problems than to identify which discipline is relevant to a problem.

There is growing tendency that researchers engage interdisciplinarity to “answer complex questions, solve complex problems, and gain coherent understanding of complex issues[...].”⁴⁸ Hubenthal argues that interdisciplinary collaboration is required because “these problems are much too complex to be judged appropriately, much less solved, merely with the subject-knowledge of a single discipline.”⁴⁹ Stember takes the position that “in interdisciplinary efforts,

⁴⁴ Edgar Morin, *On Complexity* (Cresskill, NJ: Hampton Press, 2008).

⁴⁵ Duncan, “Interdisciplinary Research on the Impact of Summer Break from School on Children with Severe Autism and Their Parents,” 198.

⁴⁶ William H. Newell, “A Theory of Interdisciplinary Studies,” *Issues in Interdisciplinary Studies* 19(2001).

⁴⁷ Kenneth E. Boulding, “General Systems Theory—the Skeleton of Science,” *Management Science* 2, no. 3 (1956).

⁴⁸ Repko, *Interdisciplinary Research: Process and Theory*: 3.

⁴⁹ Ursula Hubenthal, “Interdisciplinary Thought,” *Issues in Interdisciplinary Studies* 12(1994): 72.

participants must have an eye toward the holistic complex of interrelationships.”⁵⁰ When Klein explains the reasons for interdisciplinarity, she highlights the complex society and the increasing specialization.⁵¹ They all seem to support the idea that complexity and interdisciplinarity are somehow interrelated.

The above talks about complex situations confronted interdisciplinarity. Apart from that, the participants and the texts in this field also complicate interdisciplinary practice. Interdisciplinary discourse may involve people from outside academia as well as disciplinary communities. The hybridization on personnel contributes to a lack of common language and identity. Its texts are “a massive body of speeches, conference papers, institutional reports and working papers, reviews, notes, articles and even a number of books on the subject,” which may result in difficulties in synthesize.⁵²

Third, problem solving. Problem-solving is the goal of interdisciplinary research. Szostak argues that the best practices of interdisciplinary research are problem-specific.⁵³ Interdisciplinary programs attempt to integrate the contributions of several disciplines to a problem, issue, or theme from life.⁵⁴ The chief purpose of interdisciplinary work is to integrate relevant knowledge around a significant issue.⁵⁵ Further, Frodeman asserts that interdisciplinarity is simply

⁵⁰ Marilyn Stember, “Advancing the Social Sciences through the Interdisciplinary Enterprise,” *The Social Science Journal* 28, no. 1 (1991): 4.

⁵¹ Julie T. Klein, “A Taxonomy of Interdisciplinarity,” in *The Oxford Handbook of Interdisciplinarity*, ed. Julie T. Klein Robert Frodeman, and Carl Mitcham (Oxford: Oxford University Press, 2010).

⁵² Klein, *Interdisciplinarity: History, theory, and Practice*: 13.

⁵³ Szostak, “The State of the Field: Interdisciplinary Research.”

⁵⁴ L. Richard Meeth, “Interdisciplinary Studies: A Matter of Definition,” *Change: The Magazine of Higher Learning* 10, no. 7 (1978): 10.

⁵⁵ Earl J. McGrath, “An Integration of Knowledge and Experience,” *Change: The Magazine of Higher Learning* 10, no. 7 (1978).

a means of problem solving toward the ends of greater insights and greater success.⁵⁶

Interdisciplinarity is also highly problem driven. According to Klein “interdisciplinarity is neither a subject matter nor a body of content.”⁵⁷ This process usually starts with complex problems that are larger than any one discipline. Brewer, who argues normatively for interdisciplinarity from a problem-focused perspective, claims that “problems designate theory and methods, not the reverse.”⁵⁸

In Salter and Hearn’s typology, problem solving is embraced by instrumental interdisciplinarity which explains it as an activity designed to cater to the demands of industry and government.⁵⁹ In Klein’s work it falls into the camp of exogenous interdisciplinarity which concerns real life problems.⁶⁰

Fourth, boundary crossing. Klein describes the academy as “a house in which the inhabitants are leaning out of the many windows gaily chatting with the neighbors, while the doors between the rooms stayed closed.”⁶¹ The metaphor implies that boundaries between knowledge organizations limit the interaction between scholarly communities even if they have a common topic.

Boundary is a synonym of discipline rigidity, which is often criticized for two reasons. “Disciplinary practitioners can very often be socialized into their disciplines that they lose

⁵⁶ Frodeman, “Introduction,” xxix-xxxix.

⁵⁷ Klein, *Interdisciplinarity: History, theory, and Practice*: 188.

⁵⁸ Garry D. Brewer, “The Challenges of Interdisciplinarity,” *Policy Science* 32, no. 4 (1999): 328.

⁵⁹ Salter and Hearn, *Outside the Lines: Issues in Interdisciplinary Research*.

⁶⁰ Julie T. Klein, “The Dialectic and Rhetoric of Disciplinary and Interdisciplinary,” in *Interdisciplinary Analysis and Research: Theory and Practice of Problem Focused Research and Development*, ed. Daryl E. Chubin, et al. (Mt Airy, MD: Lomond, 1986).

⁶¹ Klein, *Crossing Boundaries: Knowledge, Disciplinarity, and Interdisciplinarity*: 19.

their reflexivity. Disciplines tend to lose sight of the amount of knowledge not accessible to it by the very limitation of its boundaries.”⁶²

The current situation in interdisciplinary research is that “an enormous amount of interchange ... is occurring in shared problem domains, common interests, and other forms of cross-fertilization,”⁶³ which “stimulates the formation of trading zones of interaction, interlanguages, hybrid communities and professional roles, new institutional structures, and new categorize of knowledge.”⁶⁴ In other words, boundaries are being crossed and it is beneficial.

When Klein comments that “the space of interdisciplinarity is not just out there – interdisciplinarity activity these days may be in the heart of disciplinary practice,” she seems to celebrate a boundary blurred ground for interdisciplinarity.⁶⁵ There are also voices for disciplinary boundaries. Hunt,⁶⁶ cited by Chandler,⁶⁷ declares that interdisciplinarity cannot live without disciplines “its promise – of daring escape from confinement, heady transgression of expected conduct, and even the potential chastisement by those more orderly and predictable – depends on the certainty of disciplinary borders.” Whether or not disciplinary structure should be respected is still a controversial topic among scholars.

Fifth, process and practice. Newell claims that interdisciplinary studies are not characterized by a specific subject matter,

⁶² Chettiparamb, *Interdisciplinarity: A Literature Review*: 9.

⁶³ Klein, *Crossing Boundaries: Knowledge, Disciplinarity, and Interdisciplinarity*: 25.

⁶⁴ *Ibid.*, 2.

⁶⁵ Julie T. Klein, “A conceptual vocabulary of interdisciplinary science,” in *Practising Interdisciplinarity*, ed. Peter Weingart and Nico Stehr (London: London: University of Toronto Press, 2000), 8.

⁶⁶ Lynn Hunt, “The Virtues of Disciplinarity,” *Eighteenth-Century Studies* 28, no. 1 (1994): 1-2.

⁶⁷ Chandler, “Introduction: Doctrines, Disciplines, Discourses, Departments,” 741.

“but rather by its distinctive approach or process, which both embraces and transcends the disciplines. Any theory of interdisciplinary studies, then, needs to explain that process.”⁶⁸ Klein holds a similar position that interdisciplinarity is not a fad or a fashion, and what is happening on the ground of practice deserves more attention.⁶⁹ They both articulate to move the discussion from definition to the best practices, and shift the focus from conceptualizing to implementing.

Newell’s point echoes by Szostak (2013:105-119) who proposes a list of best practices – a step-based research process.⁷⁰

1. Start with an interdisciplinary question.
2. Identify the key phenomena involved, but also subsidiary phenomena.
3. Ascertain what theories and methods are particularly relevant to the question at hand. As with phenomena, be careful not to casually ignore theories and methods that may shed some lesser light on the question.
4. Perform a detailed literature survey.
5. Identify relevant disciplines and disciplinary perspectives.
6. If some relevant phenomena (or links among these), theories, or methods identified in (2) and (3) have received little or no attention in the literature, the researcher should try to perform or encourage the performance of such research.
7. Evaluate the results of previous research.
8. Compare and contrast results from previous disciplinary or interdisciplinary research.
9. Develop a more comprehensive/integrative analysis.
10. Reflect on the results of integration.
11. Test the results of integration.
12. Communicate the results.

⁶⁸ William H. Newell, “The State of The Field: Interdisciplinary Theory,” *Issues In Interdisciplinary Studies* 31(2013): 31.

⁶⁹ Julie T. Klein, *Humanities, culture, and interdisciplinarity: The changing American academy* (Albany, NY: State University of New York Press, 2005).

⁷⁰ Szostak, “The State of the Field: Interdisciplinary Research,” 105-19.

If only the title steps are examined, many of those seem universal to all researches (e.g. step 1, step 4). Among all those steps, step 5 and 9 seem exclusive to interdisciplinarian. Whether more than one relevant discipline can be identified and whether there is an integration or synthesis decide the interdisciplinary nature of a research. The two steps are also included in Repko's list which suggests a similar way of the process.⁷¹

According to the above review of the main arguments in the field, Newell's (2008:48) definition of interdisciplinary study (IDS) seems to achieve a consensus to a large extent, which states:

IDS has a specific substantive focus that exceeds the scope of a single perspective and is broad or complex; IDS as a whole is characterized by an identifiable process/mode that involves drawing explicitly from the disciplines, which provide insights into the specific substantive focus, and by integration; the object of integration is instrumental and its goal is pragmatic – to solve a problem, resolve an issue, answer a question, explain a phenomenon, or create a new product.⁷²

The Relations between Interdisciplinary and Disciplinary Research

From the above sections, it may be safe to draw a conclusion that disciplinarity and interdisciplinarity are interrelated. In a general sense, they both are the consequences of knowledge accumulation. The former is often concerned with producing and organizing knowledge, while the latter is more likely regarded as an approach to promote knowledge production and reorganize knowledge into new configurations and alliances.⁷³ Just as Shailer claims, "the disciplinarity/

⁷¹ Repko, *Interdisciplinary Research: Process and Theory*.

⁷² William H. Newell, "The Intertwined History of Interdisciplinary Undergraduate Education and the Association for Integrative Studies: An Insider's View," *Issues in Interdisciplinary Studies* 26(2008): 48.

⁷³ Moran, *Interdisciplinarity*, 2nd ed.

interdisciplinarity debate directly challenges nothing less than the way the understanding, production, and dissemination of knowledge is structured within the academy, as well as the way and extent to which university researchers collaborate with other (non-institutional) producers of knowledge in society.”⁷⁴

For and against inter/disciplinarity, there are countless arguments. This paper proposes that disciplinarity and interdisciplinarity are not doomed to conflict. Most arguments against disciplinary research are more or less based on a narrow understanding of its premises or an exaggeration of its drawbacks, and vice versa. For example, when interdisciplinary research is said to fill a gap, the advocates somehow have “the sense that all dynamism in academic intellectual life must necessarily occur in the spaces between.”⁷⁵ As “issues within disciplines often masked issues between disciplines,” the presumed vacuum space is clearly not true.⁷⁶ However, due to the respect to the boundaries, it is possible for disciplinary researchers to neglect some issues or problems that tiptoe between the lines. In this sense, interdisciplinary research brings a holistic mindset and “allows researchers freedom from disciplinary constraints.”⁷⁷

As the organizational structure of higher education, disciplinarity often receives critiques of being conservative, rigid, static, rigorous, ordered, identifiable, specialized, and in depth.⁷⁸

⁷⁴ Shailer, *Interdisciplinarity in a Disciplinary Universe: A Review of Key Issues*: 1.

⁷⁵ Chandler, “Introduction: Doctrines, Disciplines, Discourses, Departments,” 739.

⁷⁶ *Ibid.*

⁷⁷ Allen F. Repko, William H. Newell, and Rick Szostak, *Case Studies in Interdisciplinary Research* (Thousand Oaks, CA: Sage Publications, 2012), 4.

⁷⁸ Duncan, “Interdisciplinary Research on the Impact of Summer Break from School on Children with Severe Autism and Their Parents.”

Those qualities, to a large extent, contribute to its status of being orthodox and authoritative in higher education. To reveal the relationship between disciplines and institutions, Clark uses a metaphor of product line and enterprises.⁷⁹ He depicts the former as research and scholarship, and the latter as teaching and service.

The interdisciplinary manner of research disrupts the solid disciplinary structure in higher education by calling for an integration of disciplinary frameworks and personnel. It is therefore described as being liberal, flexible, dynamic, progressive, border-crossing, integrative, problem-specific, and in breadth.⁸⁰ In universities, interdisciplinary programs are not orthodox but gaining a momentum. According to Augsburg and Henry, interdisciplinary studies are going through a transformation from experimental innovations of degree programs to dispersion across disciplinary fields.⁸¹ Evidenced by the frequently asked question “should an interdisciplinary mind be placed as a foundation for specialized learning or on top of disciplinary structure,” interdisciplinary practice is seriously considered in disciplinary departments.

In spite of the differences, interdisciplinarity is not the end of disciplines. According to Geertz, blending, borrowing, and integrating (as referred to genre blurring) are a new trend in the development of social science.⁸² The researchers, therefore, can be more aware of other disciplinary perspectives and methods, and have their own research stayed informed.

⁷⁹ Clark, *The Higher Education System: Academic Organization in Cross-national Perspective*.

⁸⁰ Duncan, “Interdisciplinary Research on the Impact of Summer Break from School on Children with Severe Autism and Their Parents.”

⁸¹ Tanya Augsburg and Stuart Henry, *The Politics of Interdisciplinary Studies: Essays on Transformations in American Undergraduate Programs* (Jefferson, NC: McFarland & Company, Inc., Publishers, 2009).

⁸² Clifford Geertz, “Blurred Genres: The Refiguration of Social Thought,” in *Interdisciplinary: Essays from the Literature*, ed. William H. Newell (New York: College Entrance Examination Board, 1998).

Evidenced by Strathern, thinking across disciplines is a way to approach disciplinary advances.⁸³

From another perspective Moran advocates the survival of disciplines by arguing that the very idea of interdisciplinarity is “only possible in a disciplinary world; the notion only makes sense as a reaction against, or an attempt to unify, modes of knowledge presently separated into disciplinary domains.”⁸⁴ He suggests that the existence of disciplines is the premise of the existence of interdisciplinarity.

The Research in Teaching ESL/EFL Looks for Interdisciplinary Inspirations

Teaching ESL/EFL (English as a Second Language/ English as a Foreign Language) is a complex problem. It concerns two parties - teachers and students, the relation of which cannot be simply understood as transmitters and receivers. The interaction between the two parties is dynamic and thus is affected by various factors (e.g. teaching methods, individual differences, learning materials). Numerous attempts have been made to explain how learning is perceived happening in order to shed the light on the exploration of teaching approaches (believes, principles, philosophies) and methods (pedagogies, ways and techniques of teaching). Teaching approaches are grounded and informed by theories from a variety of disciplines. Linguistics and psychology are the most commonly acknowledged. The former concerns what is being taught - the knowledge about the language, and the latter informs on the mechanism of learning. Based on these two disciplines, a highly hybrid sub-discipline called Second Language Acquisition (SLA) is established,

⁸³ Marilyn Strathern, *Commons and Borderlands: Working Papers on Interdisciplinarity, Accountability and the Flow of Knowledge* (Oxon: Sean Kingston Publishing, 2004).

⁸⁴ Michael Moran, “Interdisciplinarity and Political Science,” *Politics* 26, no. 2 (2006): 74.

and its framework is drawn on by various language teaching pedagogies.

As, in this field, how to teach foreign language to get better learning outcomes is always the center of discussion, the innovations toward teaching approaches and methods have been prompted and developed for about a century. From the first major paradigm in modern language teaching – grammar-based methods – to what Richards and Rodgers called “post-method era,” the development in this area witnesses some significant changes.⁸⁵ Throughout the twentieth century, “the quest for better methods was preoccupation of many teachers and applied linguists.”⁸⁶ A common assumption is that the later method provides a more effective and theoretically sound basis for teaching practices than the earlier methods do. However, the fact is that many of the research conducted to test and compare methods eventually confronts questions in terms of trustworthiness for some practical reasons. First, random assignment of subjects in this research area is not always accessible and affordable. Second, it is not easy to define the construct of learning outcomes – reading comprehension for example – in terms of observable behavior. Third, high inference behavior (e.g. student lacks of interest) which is hard for independent researchers to agree is normally the interest of study.⁸⁷ Last but not the least, it is very often the case that explicit description of a research which, as Nunan claims, includes “the status of the researcher, the choice of informants, the social situations and conditions, the analytic constructs and

⁸⁵ Jack C. Richards and Theodore S. Rodgers, *Approaches and Methods in Language Teaching* (Beijing: Foreign Language Teaching and Research Press and Cambridge University Press, 2008), 244.

⁸⁶ *Ibid.*, 1.

⁸⁷ David Nunan, *Research Methods in Language Learning* (Cambridge: Cambridge University Press, 1992).

premises, and the methods of data collection and analysis” are not all included in a published research report.⁸⁸

It is notoriously difficult to build a casual link between a method and learning outcomes, let alone to draw any solid conclusion to say which method is better. By claiming that a-hundred-year search for effective ways of teaching proves that a universal solution to this problem does not exist, Richards and Rodgers suggest a change of paradigm in research and a lookout for inspirations from diverse disciplines.⁸⁹

Many attempts have been made offering new solutions for language teaching by integrating techniques from different fields. For example, in their book *ESL and Digital Video Integration: Case Studies*, Li *et al* demonstrate how video can be an effective tool to create fluid, fun, interactive, and collaborative learning environments.⁹⁰ Hanson-Smith and Rilling edit a volume *Learning Languages Through Technology*, the articles of which demonstrates how teachers captivate the imagination of learners by describing technology use from the lowest levels, such as word processing and scanning, to high-end multimedia and interactive communications through voice and video on the Internet.⁹¹

How is the literature-based approach inspired by interdisciplinary thinking?

This paper proposes a literature-based approach as a solution for ESL/EFL teaching. The general topic is to explore English literature as a pedagogical tool to develop ESL/EFL learners’ language competence. In order to examine this approach, a literacy model for instruction is designed. This

⁸⁸ *Ibid.*, 59.

⁸⁹ Richards and Rodgers, *Approaches and Methods in Language Teaching*.

⁹⁰ Jia Li, Nicolas Gromik, and Nicholas Edwards, *ESL and Digital Video Integration: Case Studies* (Alexandria: TESOL Press, 2013).

⁹¹ Elizabeth Hanson-Smith and Sarah Rilling, *Learning Languages Through Technology* (Alexandria: TESOL Inc., 2007).

model is demonstrated by a sample lesson plan which includes a selection of children's and young adults' literature as reading material, and will be implemented with three groups of language learners. Through the analysis of the learners' reading responses, their feedback to the model, and the teacher's own reflection journals, this study intends to find out whether reading literature can work as an effective tool for improving students' language proficiency. The results of this study have pedagogical implications to practitioners and researchers who are interested in adopting or examining the literature-based approach.

The original idea of using literature develops from the reading of cross-disciplinary literatures. The literature of second language acquisition reveals that English literature used for language teaching purposes has a long history and had its rising and falling moment. For example, classics were used as good examples of language in language teaching classrooms from the era of Grammar Translation; this method was disposed because the classics were criticized for not being effective in modern language learning.⁹² Later, the classics regained its moment in discussions that explore the possibility of using literature as a source of authentic texts,⁹³ and as a sheltered subject in language classrooms.⁹⁴ The literature of literary theory and criticism informs that the meaning and the value of literature transcend the concept that literature is language art and linguistic techniques. For example, Eagleton argues that literature can be equated to social ideology in the sense that it has

⁹² Alan Duff and Alan Maley, *Literature* (Oxford: Oxford University Press, 1990).

⁹³ Eddie Williams, *Reading in the Language Classroom* (London MacMillan Publishers Ltd.: MacMillan Publishers Ltd., 1984).

⁹⁴ Gillian Lazar, *Literature and Language Teaching: A Guide for Teachers and Trainers* (Cambridge Cambridge University Press, 1993).

deep “social, political and philosophical implications;”⁹⁵ Gold advocates reading as a life resource and claims that reading extensively is a way to develop critical view of ideology.⁹⁶

The literacy model designed to implement the literature-based approach is hybrid. It blurs the boundary between teaching ESL/EFL and teaching literature. Teaching ESL/EFL is the content of study in the field of SLA while teaching literature requires theatrical background in literacy theories and criticism. The methods to teach ESL/EFL is related to models, procedures and techniques of teaching, for example, Communicative Language Teaching,⁹⁷ The Natural Approach,⁹⁸ Content-Based Instruction,⁹⁹ etc. The methods to literature refer to ways of describe, study, analyze, interpret and evaluate a literary work, for example, reader-response,¹⁰⁰ feminism,¹⁰¹ Marxism,¹⁰² etc. The literacy model intends to integrate teaching and literary models to engage learners in a way that a literary work is approached by a critical view and at the same time keep the purpose of learning on language.

To sum up, teaching ESL/EFL is an example of complex problem which had been traditionally seen as a search for the best method. The development in this filed inspires

⁹⁵ Terry Eagleton, *Literary Theory: An Introduction* (Oxford: Basil Blackwell, 1983), 20.

⁹⁶ Joseph Gold, *Read For Your Life: Literature As a Life Support System* (Markham, ON: Fitzhenry and Whiteside, 1990).

⁹⁷ Richards and Rodgers, *Approaches and Methods in Language Teaching*.

⁹⁸ Stephen D. Krashen and Tracy D. Terrell, *The Natural Approach: Language Acquisition in the Classroom* (Oxford: Pergamon, 1983).

⁹⁹ Karl Krahnke, *Approaches to Syllabus Design for Foreign Language Teaching* (New York: Prentice Hall, 1987).

¹⁰⁰ Louise M. Rosenblatt, *The Reader, the Text, the Poem* (Carbondale: Southern Illinois University Press, 1978).

¹⁰¹ Charles E. Bressler, “Literary Criticism: An introduction to Theory and Practice,” (New Jersey: Pearson Education Inc., 2003).

¹⁰² *Ibid.*

its practitioners to research and explore in other disciplines expecting to bring new insights. Compared to the previous attempts (i.e. the video and the technology method mentioned earlier), the literature-based approach suggests another solution by integrating disciplinary theories and methods of two domains. It is, therefore, interdisciplinary in the nature.

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