
School of Business Faculty Papers

School of Business Papers

9-12-2023

Doctoral Dissertation Progress

Larry Starr, PhD

Follow this and additional works at: <https://jdc.jefferson.edu/sbfp>



Part of the [Educational Assessment, Evaluation, and Research Commons](#), and the [Higher Education Commons](#)

[Let us know how access to this document benefits you](#)

This Article is brought to you for free and open access by the Jefferson Digital Commons. The Jefferson Digital Commons is a service of Thomas Jefferson University's [Center for Teaching and Learning \(CTL\)](#). The Commons is a showcase for Jefferson books and journals, peer-reviewed scholarly publications, unique historical collections from the University archives, and teaching tools. The Jefferson Digital Commons allows researchers and interested readers anywhere in the world to learn about and keep up to date with Jefferson scholarship. This article has been accepted for inclusion in School of Business Faculty Papers by an authorized administrator of the Jefferson Digital Commons. For more information, please contact: JeffersonDigitalCommons@jefferson.edu.

DOCTORAL DISSERTATION PROGRESS

Larry M. Starr, PhD

Adjunct Professor of Strategic Leadership,
School of Business,
Thomas Jefferson University, Philadelphia, PA
Email: Lawrence.starr@jefferson.edu

ABSTRACT

Writing a doctoral dissertation in the Thomas Jefferson University School of Business is conceived to be a complicated but linear and sequential endeavor within a well-structured and orderly context. The implication of this is that progress is made by completing a list of measurable goals based on the structure of a dissertation such as a literature review or description of research methodology. These goals are listed by doctoral candidates at the start of each semester in which writing takes place, then assessed by the faculty advisor at the end. According to the Graduate Student Handbook, failure to meet the goals during the term will result in the student receiving a failing grade and subject them to the probation policy.

I argue that absent from this mode of thinking is that the context for writing a doctoral dissertation may be volatile, complex, non-linear, and poorly structured. I also argue that because contexts vary, writing a doctoral dissertation is better conceived as a challenge that is both complicated and complex. Assessment of progress, consequently, should include methods and tools that enable faculty advisors and students to describe and discuss not only quantitative but also qualitative progress such as improved conceptual integration and synthesis. This is intended to help students, faculty, and the institution to reframe how writing doctoral dissertations may be conceived, how an expanded meaning of progress may be appreciated and assessed, and how heutagogical learning in a research-based doctoral degree may be developed.

WRITING A DOCTORAL DISSERTATION: WHAT IS PROGRESS?

Meaning of progress

The English word *progress* holds dynamic meaning. When used as a noun, it refers to forward movement and gradual improvement such as making progress toward achieving or completing an outcome. As a verb, to progress describes developing to a higher, better, or more advanced stage. While progress denotes change, the speed or rate (slow or quick) or size (small or large) may be variable. Assessing progress may also be non-linear and non-sequential. Consider a one-year project: If outcomes are measured after three months, progress may be reported to be moving adequately but intermittently; if assessed at the mid-point, it may have halted; as the deadline approaches, demands to finish may force increased and rapid progress. Evaluating progress does not necessarily differentiate between its quantity and efficiency, and its quality and effectiveness. For example, those who work on a project may demonstrate progress in the quality of interactions, such as by increasing trust for future relationships, generating innovation, and by developing unanticipated valuable insights. Yet, at the time of measurement, the quantity of goal-related outcomes may show only slight improvement over previous measurement unless a broader conception of goals has been considered.

The word progress is applied to different kinds of challenges some without a clear end-point. For example, the healthcare community continues to make progress in early identification, prevention, and management of some but not all cancers, a family of diseases in which abnormal cells divide uncontrollably and destroy body tissue. Progress has also been reported for patients in need of support due to long-term after-effects of radiation treatments although radiation toxicity may not be prevented.¹ The concept of progress may also be applied when individuals or groups hold different perceptions each with limited autonomy, and where there is unequal access to scarce resources. In such political conflict, progress may be described as absent or elusive despite repeated and dedicated work toward agreement.

Doctoral dissertation progress

While the first universities that emerged in Europe awarded doctorates in law and medicine in the 11th century (D'Epiro & Pinkowish, 2001²), it was not until the early 1800s, at Friedrich Wilhelm University in Berlin, Germany, that a student was first awarded the Ph.D. for a course of study that today's doctoral students would recognize; that is, a sequence of coursework, followed by completion and successful defense of a dissertation of original research. The concept of the research Ph.D. subsequently spread to the United States with Yale University the first American university to award the degree in 1861 (Rosenberg, 1961³).

There are many interacting elements that contribute to writing and completing a doctoral dissertation. Adopting a systems perspective, Starke-Meyerring, Pare, Yan Sun and El-Bezre (2014⁴) examined doctoral thesis-writing at research-intensive universities and noted, for example, that how advisor roles are assigned depend on, “how (an academic department) conceives of the doctoral thesis, how it regulates the writing of the thesis, (and) how it positions the process and product of thesis writing within the knowledge-making activities of the university (p. 13).” Taking a Bayesian network approach, i.e., identifying belief networks to create a probabilistic graphic model, Pitchforth, Beames, Aleysha, et al (2012⁵) noted that,

completing a PhD on time is a complex process, influenced by many interacting factors...(including) a network comprised 37 factors and 40 connections. Across all participants, the four factors that were considered to most directly influence timely completion were personal aspects, the research environment, the research project, and incoming skills (p. 124).

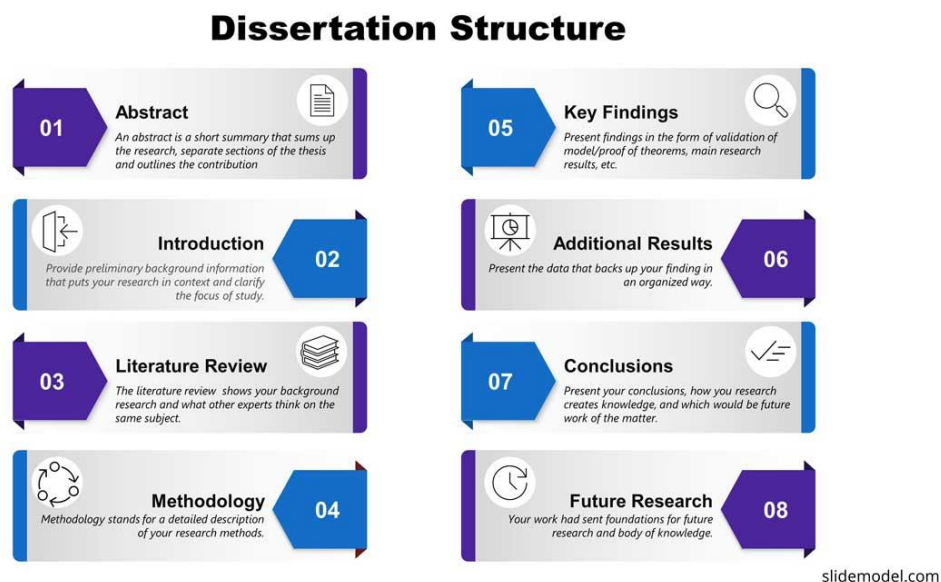
Research supports the following elements that contribute to completing a doctoral dissertation: One is the student/candidate writing the document who feels ownership and purpose while under the supervision of a doctoral dissertation committee. The second is the faculty/advisor, the lead of the dissertation committee, who is often a subject matter expert in the topic chosen by the student. The advisor accepts the contractual and moral obligation to support and guide the student from

the start until the completion of the manuscript and its defense which is required for acceptance. The third is the topic/content of the dissertation including the characteristics of the thesis being argued and its fit within academics and practices. The fourth is the contextual environment in which the dissertation and its research are carried out. Contextual forces are everything influencing the experiences of conceptualizing, proposing, researching, writing, and delivering the manuscript. These four elements are not a collection nor are they additive; rather, they are interactive, interdependent and multiplicative from which emerges outcomes including progress. This means it is the interrelationships among the four elements rather than any single element that is responsible for the timing, quantity, quality, success or failure of writing a doctoral dissertation.

Linear sequence and recursive loops

One may conceive of writing a scholarly document as a linear sequential process. The structural components of a doctoral dissertation are well established and include Chapter 1 Introduction, Chapter 2 Literature Review, Chapter 3 Methodology, Chapter 4 Results/Findings, and Chapter 5 Conclusions and Future Research (Figure 1).

Figure 1. Dissertation structural components



Informed by this conception, writing a dissertation may be understood to follow directly from the preceding one until the entire document is completed. Progress, consequently, may be simplified to determining whether or not each individual step has been completed (Figure 2).

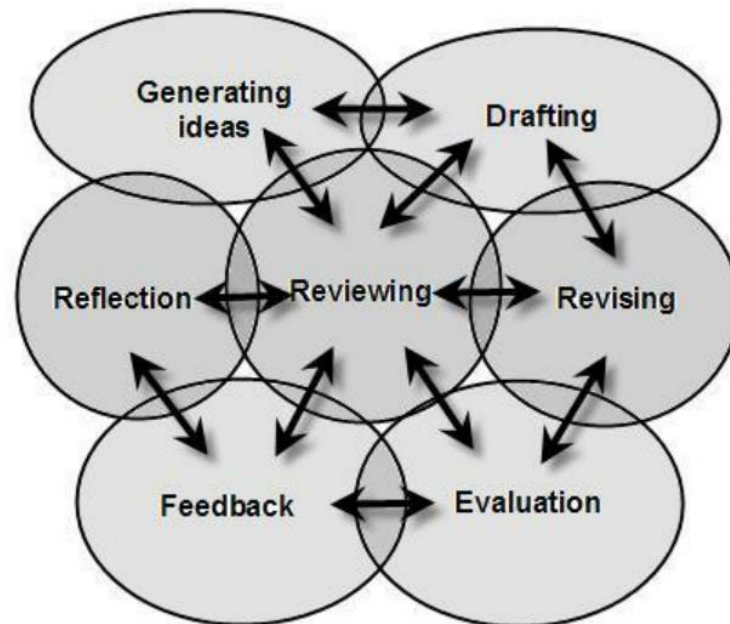
Figure 2. Progress as a linear sequence



Source: <https://www.trueeditors.com/blog/what-are-the-steps-in-writing-a-dissertation/>

This conception fails to appreciate that “completing a PhD on time is a complex process.”⁵ A complex process for scholarly writing such as the doctoral dissertation means that outcomes emerge in a non-linear manner with variable speed, order, and over variable time periods. Sections, topics, and the end-point are not sequential; they are in continuous flux with repeated and circular looping. Nunan (1999⁶) presented the interrelationships and overlaps among the elements of scholarly writing into a dynamic image (Figure 3).

Figure 3. Recursive writing process (Nunan, 1999, p. 274).



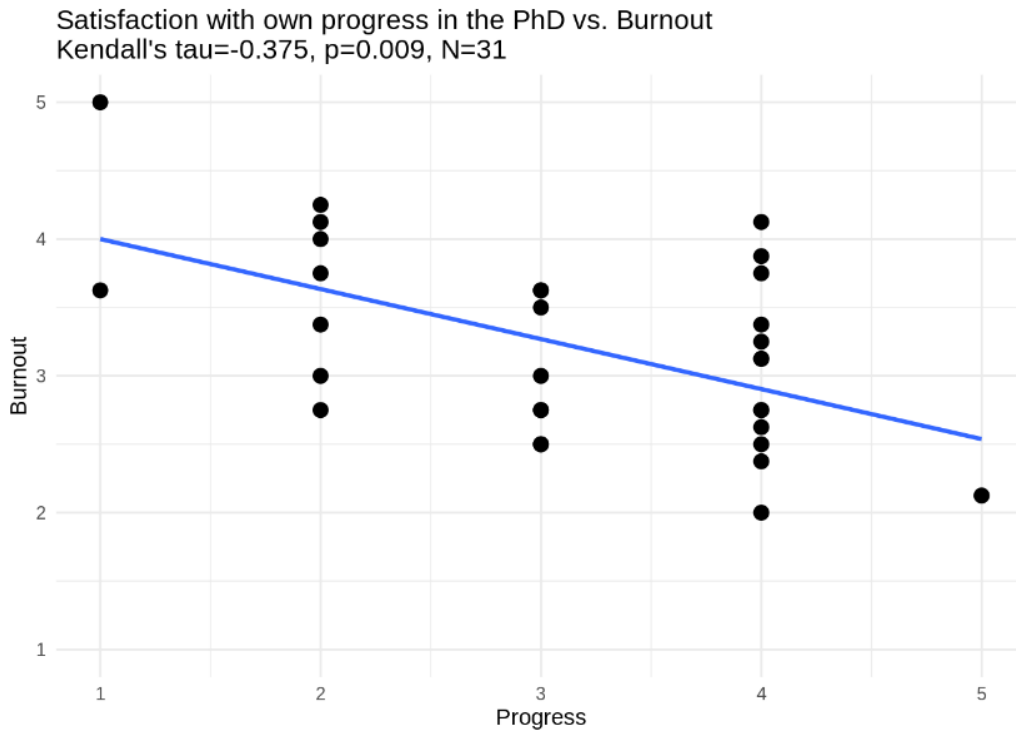
Amabile and Kramer (2011⁷) described circular characteristics associated with what they called the progress loop which includes setback events. These are situations that signal progress has stopped/is stuck or is going in circles. Recursion or progress loops may occur when writing a doctoral dissertation because of unanticipated changes in any of the four elements or their interactions that contribute to progress. For example, the sponsor or advisor may redefine a requirement or critical concept; the student may discover a component of content that had been overlooked or was misinterpreted; or a significant contextual event may change access to the advisor or to essential content. In these and other situations, the work of previous weeks or longer may need to be re-done, reversing progress.

Focusing on the progress loop, Prieto (2020⁸) examined perceptions of progress by doctoral students writing dissertations. Those who perceived they were making adequate or enough progress remained committed to writing and remained in the doctoral program. Students who dropped out of a doctorate, conversely, reported long periods of stagnation including “being stuck,” “going in circles,” “going

backwards” and feeling “burned out.” What made the difference between those who remained or abandoned their studies was not advising quality or peer support - these did not differ among those who stayed or left - but rather three other elements. First was writing a dissertation that was meaningful and gave the student ownership. Second was not experiencing too much distress (from personal or professional/work sources) while writing the manuscript. Third was the self-perception and self-evaluation that they felt they were making adequate progress (see also Devos, Boudrenghien, Van der Linden, Assi, Frenay, Galand & Klein, 2017⁹).

Prieto’s research showed (Figure 4) that as a doctoral student’s feelings of being stuck or burned-out increased, perceived progress decreased which led some to stop writing. Students who had a higher degree of tolerance for progress uncertainty in their dissertation topic and who had a topic with positive meaning and engagement over longer periods of time continued to work on their dissertations. These students remained committed and active students albeit their progress was slow.

Figure 4. Relationship between student’s perceived progress and burnout



Failure to progress

In healthcare, Failure to Progress (FTP) is a quantitative clinical diagnosis made when a patient does not reach an expected outcome. It is applied, for example, if a pregnancy does not progress as quickly as providers think it should. While there is a pregnancy norm based on Friedman's Curve which described an expected rate of cervical dilation during of stages of labor, estimates of FTP remain subjective (Dekker, Ali & Wison, 2020¹⁰). Failure to Progress may also be applied to patients who fail to reach minimal differences in their improvement on a numeric pain-based rating scale, for example, after rehabilitation of hip, leg or ankle injury.

A similar quantitative clinical approach is applied in the Thomas Jefferson University Doctor of Management in Strategic Leadership degree program. Progress is evaluated each semester based on submission of a Dissertation Deliverables Form which directs students to list only measurable outcomes based on the structural components of a dissertation anticipated to be completed (Table 1). Directions include,

Students need to work with advisors to set a minimum of two deliverables (at the start of a semester) that will be turned in to the advisor to measure progress. All deliverables must be measurable. For example, sample deliverables include completion of a particular chapter of the dissertation, defending your proposal, completing and submitting your IRB paperwork, conducting your focus group meetings etc. All deliverables (listed on the Deliverables Form) should be submitted to your advisor by the last day of classes (for evaluation).

Students will not be registered for a subsequent term unless both a registration form and this dissertation deliverables form are submitted.

Table 1. Dissertation Deliverables Form

Deliverables (this list is to be completed by student at the start of term)	Feedback (evaluation of what was delivered is to be completed by advisor at end of the term)
1.	
2.	
3.	
4.	

To further define the meaning and the consequences of failure to progress, the Thomas Jefferson University Graduate Student Handbook (2022-2023, p. 11)¹ notes that students must first deliver a dissertation proposal which is reviewed and approved by the dissertation committee, then complete submission and approval by the University Institutional Review Board, then carry out the research, write up the results and discussion then prepare the final manuscript and hold the dissertation defense. The Handbook describes registration requirements and penalties:

In the event that a student has not successfully defended their dissertation (after writing for two semesters) the student is required to register for every subsequent term (Fall, Spring and Summer) and make tangible progress each term. Following the registration procedures, students will continue to submit a Dissertation Deliverables Form noting their goals for each semester. Failure to meet the goals during the term will result in the student receiving a failing grade and subject them to the probation policy.

What kind of contextual challenge is writing the dissertation?

Snowdon and Boone (2007¹¹) suggested a direct relationship between the problem’s context, how one conceives a problem, and how one makes a decision to solve the problem. Context is not merely an input variable added to others that may influence performance; rather, it is a fundamental, epistemological lens or framework. Within a project such as writing a dissertation, for example, the whole situation that surrounds and informs choices and actions is the context. In this broad

¹ The Graduate Student Handbook is provided only as a PDF file; it is not published on the University website.

perspective, the following are all examples of contexts: working in a military or academic or globally diverse culture; being confronted by threats of illness and death during a global pandemic; shifting from face-to-face to online meetings; coping with loss or threats of loss of employment; being a member of an organizational system undergoing a merger, restructuring or elimination. Northoff (2013¹²) noted, “the concept of context is here understood in a wider way that includes different kinds of contexts, social, cultural, mental, and bodily. Culture is then one specific instance of context-dependence (p. 77).”

Snowdon and Boone (2007) addressed variations in context by creating a framework. They proposed the Welsh word *Cynefin*, (pronounced Kun-Ev-In) meaning *habitat* and argued that before deciding what to do, the situational context should first be examined, understood, and framed by applying the Cynefin Framework. This means instead of asking, “What progress has been made in writing this dissertation?” the more appropriate question would be, “In what kind of context is writing this dissertation located?” and “What kind of contextual problem is dissertation progress?” This is a change in the fundamental framework for ordering, perceiving, and understanding reality.

The Cynefin Framework depicts that contexts vary across a continuum from unordered, unstructured, and unpredictable to ordered, well-structured, and predictable. Within an unordered/unstructured context, problems are referred to as complex and chaotic. Within an ordered/structured context, problems are called simple (clear) and complicated. Figure 5 presents the early Cynefin Framework (Snowdon & Boone, 2007). Figure 6 shows the updated (Snowdon, 2020¹³) conception.

Figure 5. Cynefin Framework (2007)

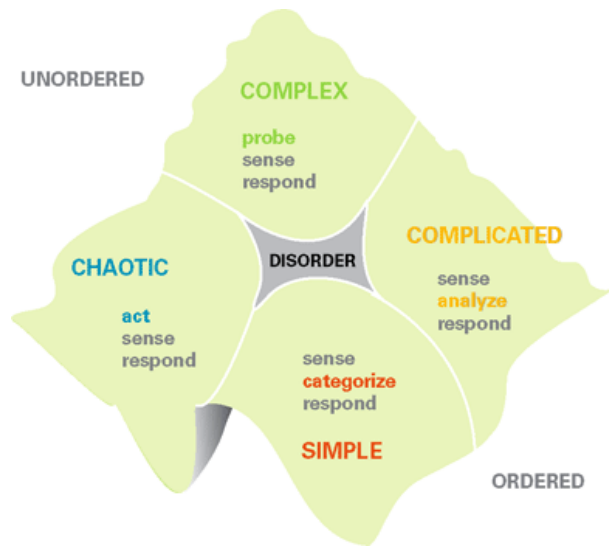
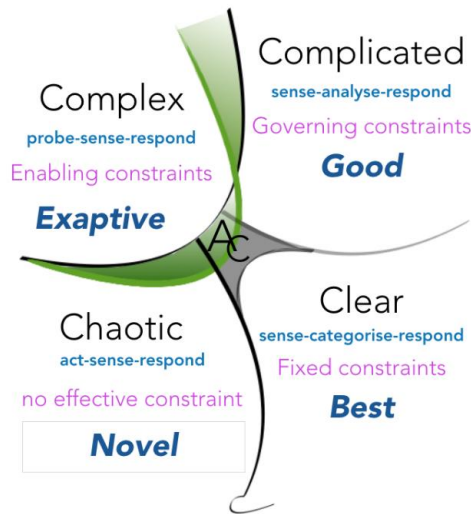


Figure 6. Cynefin Framework (2020)



Informed by the Cynefin Framework, assessing dissertation progress should not be a “one-size-fits-all” premise of reality. Rather, one should begin by assessing the characteristics of the context of writing. If the context is determined to be well-ordered, stable and predictable, then the problem domains may vary between being simple/clear and complicated. Dissertations written in this context are in the domain of expertise which means they benefit from well-set schedules, clearly structured content (e.g., literature review, methods and tools), and advising by expert faculty. For these situations, good and best practices are appropriate which means a qualified faculty supervisor working with a qualified doctoral candidate would be expected to make regular and continued progress, e.g., writing and delivering measurable parts of the manuscript. Progress would appropriately be based on setting and meeting goals based on the analytic premise of the whole equal to the sum of the parts, i.e., completion of each part of a dissertation adds up to completing the whole dissertation.

If the context of writing a doctoral dissertation is discerned to be unordered, poorly structured, and unpredictable then, according to the Cynefin Framework, the situation is referred to as complex/exaptive or chaotic. In this kind of context,

conceiving and formulating the problem, evaluating the literature, collecting and evaluating data, and writing conceptual descriptions are non-linear and recursive with intermittent progress loops that may require significant rethinking and revision. Writing in a complex context is in the domain of emergence rather than expertise which means there is no linear sequence or map for navigating; students must discern meanings and relevance by reflection and experimentation of ideas; and progress is qualitative. Understanding emerges when concepts are integrated and synthesized in ways that support the whole thesis rather than only by focusing on completion of sections or parts. A dissertation written in a complicated and ordered context may be assessed for progress as one might follow a recipe by checking that items are included. But if the dissertation and its context are complex, this way of thinking is misleading and inappropriate. This is because writing a dissertation in a complex context is qualitatively different from writing one in a complicated context as explained by Goldstein, Hazy and Lichtenstein (2010¹⁴).

Until recently the differences between complicated and complex were not well understood; as a result, they have often been treated in the same way, as if the same process should be used to “deal with” situations (or concepts) that are complicated or complex. Business schools justified this by treating organizations as if they were machines that could be analyzed, dissected, and broken down into parts. According to that myth, if you fix the parts, then reassemble and lubricate, you’ll get the whole system up and running. But this is exactly the wrong way to approach a complex problem (p. 371).

When formulated through the lens of differing contexts, the process of writing a dissertation may be understood to be complicated and complex. For aspects of the writing that are complicated, progress may be examined by assessing linear, sequential, and quantitative characteristics, e.g., how many and how much of the chapters have been written. For aspects of the writing that are complex, progress may be examined by assessing the qualitative characteristics, e.g., to what degree concepts are integrated and synthesized, and how patterns and structures are better

understood. Yawson (2016¹⁵) described the clash of the complicated vs complex paradigms in leadership research,

There is a ... a profound divide in philosophical understandings - in the deep meanings - because they have developed from contrasting philosophies of science, that is, contrasting answers to the ontological and epistemological questions that reflect the assumptions researchers bring to their work (Uhl-Bien and Ospina, 2012 56). The ontological justification of the linear approach to leadership has been the dominant premise on which leadership research has been conducted. However, starting from the early 1990s, there has been an emerging paradigmatic shift to the nonlinear epistemology of practice and the effect on 21st-century organisations (p. 262).

Dissertation theories of learning

There are two generally acknowledged purposes of writing a doctoral dissertation; both are predicated on faculty - student relationships. The first purpose is to enable the teaching/learning experience which is directed toward self-development wherein the student demonstrates competency to independently address an important problem in the domain in which the topic is located. Ciampa and Wolfe (2019¹⁶) investigated perceptions and satisfactions of doctoral students who completed a dissertation and noted that writing was described as complex and successful delivery depended on the student's "ability to engage in self-directed learning (p. 86)." Self-directed and self-determined learning rather than teacher-directed or teacher-dependent learning were described by Starr (2020b¹⁷) as central to doctoral program education, particularly in programs that address learning leadership.

Traditional pedagogy is content-based which means what is to be learned can be described as a list of topics, subjects, and learning objectives. It is also teacher-directed and teacher-dependent which means there is an authoritarian leadership premise; namely, that students require external motivation to learn and it is the teacher's obligation and ethical expectation with the student to present/deliver the

course content and to evaluate performance. This leadership premise of traditional pedagogy is power-and-control-based such that the teacher is the transmitter of knowledge and skills, explicitly sets the agenda, determines the means of meeting the outcomes (method of evaluation), and determines the degree to which outcomes are met (assigns a grade). Students are recipients of this directed content and process, dependent on teachers for the delivery, and (generally) acceptant of the evaluation measuring their learning. The relationship is directional, linear, and bounded. There is little or no attention paid to context nor is there presumed feedback or meaningful interactions that contribute to any teacher learning from the content or from the student, and there is no assumption of coproduced novel emergent learning. Penaluna and Penaluna (2015¹⁸) noted, “This approach ... does not empower the student to develop their own learning independently (p. 14).”

The theory of learning most relevant to doctoral education which is self-directed and self-determined is referred to as heutagogy and was introduced as an extension to andragogy by Hase and Kenyon (2007¹⁹). They argued that the 21st century learner must become responsible not only for how to learn but also for what to learn. The active and autonomous requirement of the learner in heutagogy challenges pedagogy and andragogy which require the instructor to provide content and set learning objectives, and changes the learner into a colleague of the instructor which is essential for a doctoral student who will teach others. That the learner is active means that the learner questions and decides if the topic itself is being formulated properly, if a different mindset is required to understand the complicated or complex characteristics of a topic, and if the content, methodologies or tools provided are appropriate to solve or dissolve the problem.

The learner in heutagogy is self-determined, interdependent, and practice based, and as a matter of personal and professional development identifies emergent and context-based opportunities and requirements to learn. Heutagogy is active and participatory, driven by learners who are engaged in discovery and reflection, creation of new content/information, and personal decisions about the degree to which they need collaboration with facilitators, mentors and peers. This form of

learning occurs in a non-linear manner, giving the learner full agency and following a self-defined learning path not designated by an instructor. This approach to learning is critical when writing a doctoral dissertation, particularly when the context is dynamically complex rather than stable (Starr, 2020b¹⁷). As noted by Eichler and Dietz (2014²⁰):

Heutagogical learning extends the goal-setting in andragogy by calling on the learner to not only evaluate their progress on (self-defined) goals, but to evaluate the goal setting process itself and revisit their goals for revision throughout the process ... Goals in questions may come from additional information or a better understanding of the complex systems and rule sets underlying a complex problem. Further, problems change over time, particularly complex social problems (p. 155).

The second purpose of writing a doctoral dissertation is that by working closely with the faculty/advisor, the student is enabled learn how to make “an original contribution to knowledge ... which Whitley (1984) earlier had described as involving ‘continual novelty production’ (Isaac, Quinlan & Walker, 1992²¹, p. 242).” Isaac, Quinlan and Walker (1992) further operationalized this dissertation purpose to include that the role of the faculty/advisor is to enable in the student self-development proficiencies, learning of research skills, and the explicit demonstration of those research skills. They also noted that writing a doctoral dissertation has informal, emotional, and historical purposes that extend beyond the document and which if broken can have serious negative effects for both faculty and student. They wrote,

When faculty at doctoral-granting institutions refer to “their students,” they typically are referring to their dissertation advisees. The dissertation and the process leading to it provide an informal and emotional link between student and adviser which can extend far beyond the graduate student experience. In reality the student is becoming a colleague of the advisor (p. 242).

In a developmental study covering approximately 25 years with more than 250 participants in doctoral programs, Brause (2001²²) found that for some students who successfully delivered a dissertation, the writing process was very positive and,

the highlight of their educational development... an experience which helped them to see the world - or a phenomenon - with new lenses and some noted they now understand more about themselves as learners as well as about the topic of their dissertation. There was frequent reference to enhanced self-esteem, self-confidence, assurance that "I can do anything" (pp. 4-5).

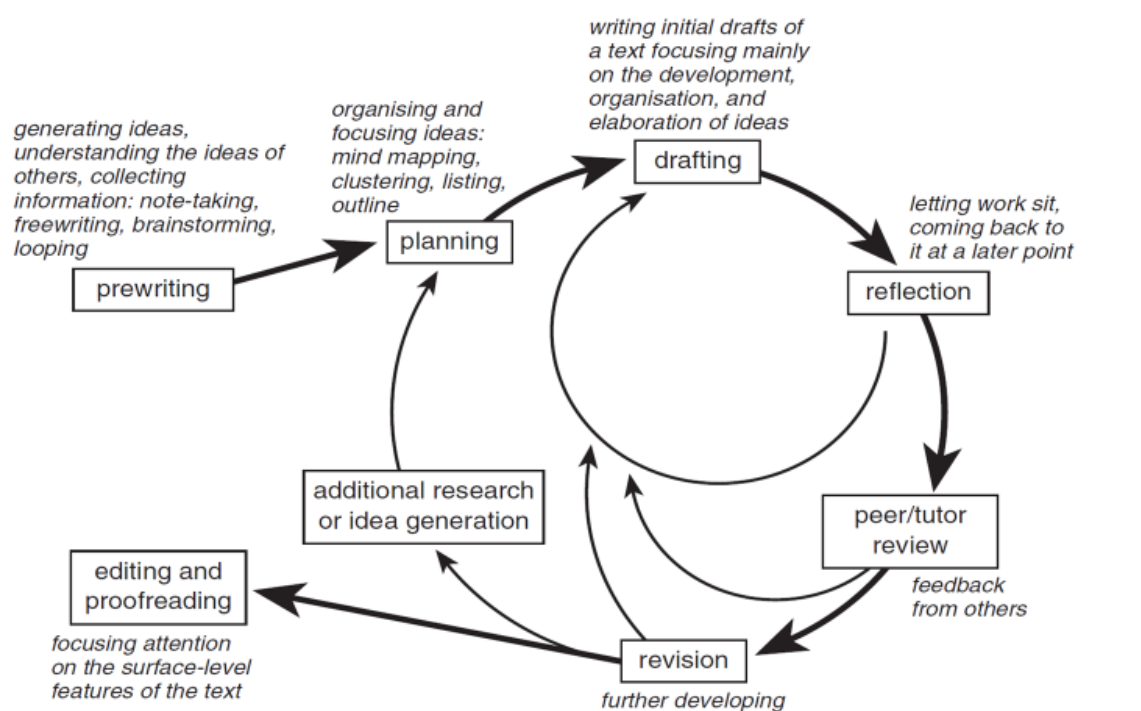
But, many students had no idea what to expect in the dissertation process and have referred to writing as often fraught with emotional challenges. Referred to as the "field of screams," students (and advisors) report that preparing, collecting data, and writing are "daunting and harrowing" (Pare, 2009²³), and students have reported feeling "alone, ashamed, bereaved, betrayed, depressed, desperate, disappointed, disturbed, embarrassed, fearful, frustrated, guilty, harassed, homeless, paranoid, regretful, silenced, stressed, trapped, and uncomfortable," Pollard (2009²⁴).

Integration

How one conceives, formulates and frames the process of writing a doctoral dissertation informs how one thinks how progress should be measured. One conception is that the context of writing is ordered and structured, and progress is linear and sequential. This supports use of ordinal and interval measurement scales with clearly defined goals. For example, one may measure progress as completion of chapter 1 and chapter 2 of a multi-chapter sequence, or when 25% then 50% of the chapter milestones have been completed. This analytic approach corresponds to the mechanistic mindset that is common in clinical decision-making and evidence-based science. When progress is deconstructed into individual additive parts (the word *analysis* from Greek means break into small parts), it becomes reasonable to simplify a project into parts independently which independently add up to the whole of progress.

Another conception is that writing a dissertation is a complex endeavor within a dynamic, uncertain, unstructured context. Holding this mindset, the processes and activities of planning, drafting, collecting, comparing, revising and editing are understood to be non-linear (Coffin, Curry, Goodman, et al, 2005²⁵) with many recursive loops (Figure 7). This mode of thinking informs evaluation of progress using qualitative measures. These focus on assessing increased competencies and proficiencies of cognition and understanding, formulating and navigating complex challenges with conceptual arguments, discerning integrations, and engaging in written synthesis.

Figure 7. Progress within the non-linear process of academic writing



When it is appreciated that a dissertation may be complicated and complex, it must also be recognized that measuring progress using only quantitative metrics is inadequate because progress in this domain is too subjective to be measured in purely quantitative terms. Furthermore, an excellent dissertation is marked not by whether

a set of measurable goals set months earlier are met, but by how well the author writes, and how dynamically responsive the author is to contextual changes in the topic.

These differences may be dissolved by integrating both modes of thinking into a broader conception and assessment of progress. Added to the current quantitative structural list on the Dissertation Deliverables Form should be a second tool addressing the qualitative aspects. This may be drawn from the **Dissertation Evaluation Form** (Table 2) one of the tools for assessing dissertation quality by a dissertation committee during the Doctoral Defense (Thomas Jefferson University Graduate Student Handbook (2022-2023, Appendix H, pp. 26-27). As presented, the criteria include some structural components (e.g., problem definition, literature review, and results) but also several qualitative elements (e.g., solution approach, novelty, impact of work, critical thinking, broader impact).

Table 2. Proposed second dissertation progress evaluation form (1 = low; 5 = high)

Problem Definition: Has stated dissertation problem and research questions of the project clearly, providing motivation and justification for undertaking the work.	1	2	3	4	5
Literature and Previous Work: Has demonstrated knowledge and understanding of relevant literature in areas appropriate to addressing the general problem and research questions.	1	2	3	4	5
Novelty: Has introduced or integrated new approaches or novelty into the topic.	1	2	3	4	5
Impact of Work: Has demonstrated understanding of the potential value and implications of the topic.	1	2	3	4	5
Solution Approach: Has applied sound academic knowledge, methodology, skills and tools to present and evaluate the arguments.	1	2	3	4	5
Results: Has analyzed, synthesized and interpreted data and patterns effectively.	1	2	3	4	5

Quality of Communications: Has communicated the concepts or their integration in the presentation of literature and results in clear and academic ways.

1 2 3 4 5

Critical Thinking: Has demonstrated capability for independent research practice or professional practice in the area of study.

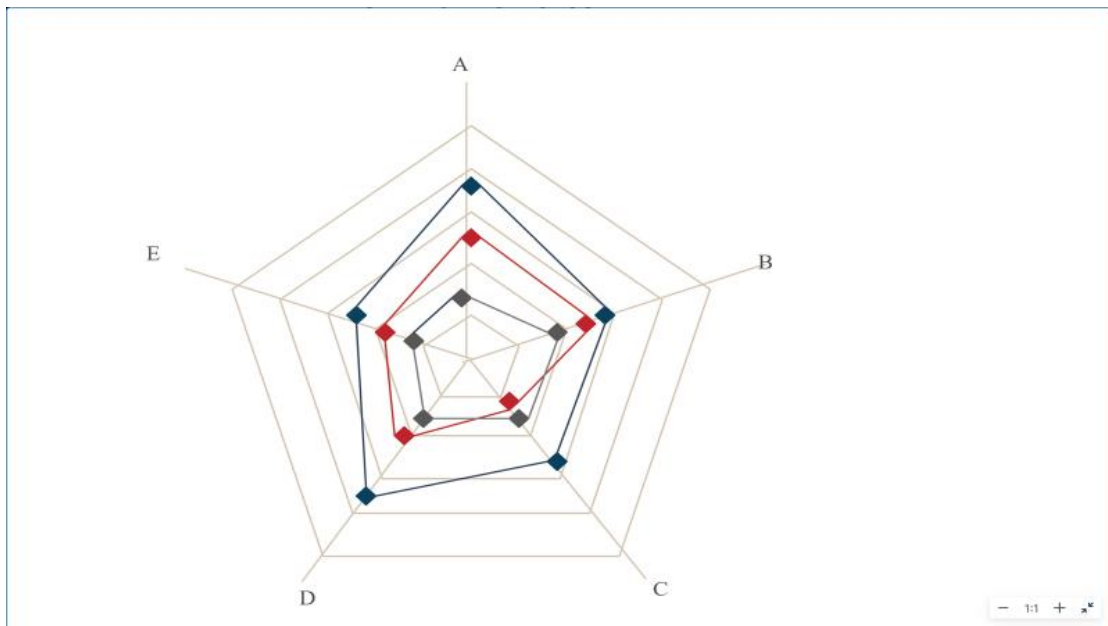
1 2 3 4 5

Broader Impact: Has demonstrated awareness of the broader impact and implications of the thesis including in ways that are valuable for social, cultural, technical, ethical, and organizational/business contexts.

1 2 3 4 5

The second form may be paired with a spider diagram (Figure 8). Each of the arms (A, B, C, etc.) could be the criteria; the levels of progress would begin in the center and expand outward (from 1= low to 5=high). A student and the faculty/advisor could create separately or together their perceptions of dissertation progress which would produce spider circles which could be discussed for shared understanding. Progress over time would show how the circles expanded to the perimeter.

Figure 8. Spider diagram for qualitative assessment of progress



Conclusions

Writing and delivering a doctoral dissertation is not a “one-size-fits-all” endeavor. Variations and changes occur and emerge within and between students, faculty, content, and context all of which may be considered influences of how to think about and assess dissertation progress. The current approach demands that students and faculty list a set of structural elements intended to be completed in an upcoming semester. If these are completed then the student is acknowledged to have made dissertation progress. If these are not completed, the student may be informed that there has been failure to progress which produces a grade of F on the academic transcript for that semester.

It is argued that an expanded approach to thinking and practice would add a second assessment of progress using qualitative criteria. The value of using both quantitative and qualitative measures of progress supports deeper and more transparent and academic conversations between the advisor and doctoral candidate about how, by what methods, and using what information each judges progress. To promote heutagogic learning, the criteria used for progress measurement could be discussed and adjusted as writing progressed with input from the student whose work is being evaluated. Furthermore, responsibility and ownership for identifying and evaluating progress measurement would shift during the advising relationship from the faculty advisor to the student just as ownership of the topic belongs with the student. This reframing is intended to help students, faculty and the institution to expand how writing doctoral dissertations may be conceived, how an expanded meaning of progress may be appreciated and assessed, and how learning in a research-based doctoral degree may be further developed.

REFERENCES

-
- ¹ Majeed, H. & Gupta, V. Adverse Effects of Radiation Therapy. [Updated 2023 Aug 14]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK563259/>
- ² E'prio, P. & Pinkowish, M. D. (2001). *Sprezzatura: 50 ways Italian genius shaped the world*. New York: Anchor Books division of Random House.
- ³ Rosenberg, R. P. (1961). The First American Doctor of Philosophy Degree: A Centennial Salute to Yale, 1861-1961. *The Journal of Higher Education*, 32(7), 387-394. <https://doi.org/10.2307/1978076>
- ⁴ Starke-MeyerringD., ParéA., SunK. Y., & El-BezreN. (2014). Probing normalized institutional discourses about writing: The case of the doctoral thesis. *Journal of Academic Language and Learning*, 8(2), A13-A27. Retrieved from <https://journal.aall.org.au/index.php/jall/article/view/295>
- ⁵ Pitchforth, J., Beames, S., Thomas, A., Falk, M., Farr, A., Gasson, S., Thamrin, T. & Mengersen, K. (2012). Factors affecting timely completion of a PhD: a complex systems approach. *Journal of the Scholarship of Teaching and Learning*, 12(4), pp. 124-135.
- ⁶ Nunan, D. (1999). *Second language teaching and learning*. Boston MA: Heinle & Heinle
- ⁷ Amabile, T. & Kramer, S. (2011). *The progress principle: Using small wins to ignite joy, engagement, and creativity at work*. Cambridge, MA: Harvard Business Press.
- ⁸ Prieto, L. (2020, January 24). Cultivating the progress loop in your PhD. A happy PhD. Retrieved from <https://ahappyphd.org/>
- ⁹ Devos, C., Boudrenghien, G., Van der Linden, N. Azzi, A., Frenay, M. Galand, B. & Klein, O. (2017). Doctoral students' experiences leading to completion or attrition: A matter of sense, progress and distress. *European Journal of Psychology of Education*, 32(1), 61-77.
- ¹⁰ Dekker, R., Ihotu, A. & Wilson, E. (2022). Evidence-based birth. Retrieved from <https://evidencebasedbirth.com/friedmans-curve-and-failure-to-progress-a-leading-cause-of-unplanned-c-sections/>
- ¹¹ Snowden, D. J. & Boone, M.E. (2007). A leader's framework for decision making. *Harvard Business Review*, November, 69-76.
- ¹² Northoff, G. (2013). What is culture? Culture is context-dependence! *Culture and Brain*, 1: 77-99. Retrieved from: <https://doi.org/10.1007/s40167-013-0008-y>

-
- ¹³ Snowden, D. (2020). Cynefin St David's day 2020. The Cynefin Co. Retrieved from: <https://thecynefin.co/cynefin-st-davids-day-2020-cynefin-framework/>
- ¹⁴ Goldstein, J., Hazy, J.K., & Lichtenstein, B.B. (2010). *Complexity and the nexus of leadership: leveraging nonlinear science to create ecologies of innovation*. New York: Palgrave Macmillan.
- ¹⁵ Yawson, R. A. 2016. The importance of multimethods and mixed methods research in understanding complexity in leadership. *International Journal of Complexity in Leadership and Management*, 3(4): 261-277.
- ¹⁶ Ciampa, K. & Wolfe, Z. (2019), Preparing for dissertation writing: doctoral education students' perceptions, *Studies in Graduate and Postdoctoral Education*, Vol. 10 No. 2, pp. 86-108. <https://doi.org/10.1108/SGPE-03-2019-0039>
- ¹⁷ Starr, L. M. (2020b). Leadership, Contexts, and Learning - Part 2. Theories of Learning, Channels, and Curricula. *Thomas Jefferson University School of Continuing and Professional Studies Faculty Papers*. Paper 7. <https://jdc.jefferson.edu/jscpsfp/7>
- ¹⁸ 5 Penaluna, A. & Penaluna, K. (2015). *Thematic paper on entrepreneurial education in practice. Part 2: Building motivations and competencies*. Organisation for Economic Cooperation and Development (OECD, LEED Programme) and the European Commission (DG Education and Culture). Retrieved from: <http://www.oecd.org/cfe/leed/EntrepreneurialEducation-Practice-pt2.pdf>
- ¹⁹ Hase, S. & Kenyon, C. (2007). Heutagogy: A child of complexity theory. *Complicity: An International Journal of Complexity and Education*, 4(1), 111-119.
- ²⁰ Eichler, M.A. & Dietz, D. (2014). Heutagogy: The graduate experience as a complex system, (Chapter 10, pp. 147-161). In J. Carrie, J. B. Mc Gill & K. P. King (Eds.) *Developing and sustaining adult learners*, Charlotte, NC: Information Age Publishing.
- ²¹ Isaac, P.D., Quinlan, S.V. and Walker, M.M. (1992). Faculty perceptions of the doctoral dissertation, *Journal of Higher Education*, 63(3): 241-269.
- ²² Brause, R. S. (2001). Doctoral Dissertations: What Doctoral Students Know, How They Know it, and What They Need To Know--A Preliminary Exploration. Paper presented at the Annual Meeting of the American Education Research Association, Seattle, WA, April 10-14. Retrieved from <https://eric.ed.gov/?id=ED453723>
- ²³ Paré, A. (2011). Speaking of writing: Supervisory feedback and the thesis. In L. McAlpine & C. Amundsen (Eds.), *Supporting the doctoral process: Research-based strategies for doctoral students, supervisors and administrators* (pp. 59-74). New York, NY: Springer Publishing Company.

²⁴ Pollard, A. (2009). Field of screams: difficulty and ethnographic fieldwork. *Anthropology Matters*, [Vol. 11 No. 2 \(2009\)](#): pp1-24.
DOI: <https://doi.org/10.22582/am.v11i2.10>

²⁵ Coffin, C. Curry, M.J., Goodman, S., Hewings, A., Lillis, T. M., & Swann, J. (2005). *Teaching academic writing*. New York and London: Routledge/Taylor and Francis.
https://www.researchgate.net/publication/42788641_Teaching_Academic_Writing_A_Toolkit_for_Higher_Education