Issues of Constructs, Contexts, and Continuity: Commentary on Learning in Higher Education

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Published online: 7 April 2017

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What is the nature of student learning within higher education and what has empirical research and theory revealed about such learning over the past decade? Those are among the critical questions that this special issue set out to address. Toward that end, international scholars long invested in the study of learning prepared critical and systematic reviews of the literature surrounding specific constructs foundational to academic development within tertiary education. Dinsmore (2017), for example, delved into the topic of strategic processing. His detailed examination of 134 studies reinforces his core argument that any theoretical model of strategic processing among college students must embrace its multidimensional and dynamic nature. The three broad models he considers in this analysis are the (a) levels of processing, (b) trait models, and (c) state models. The three key findings that Dinsmore extracts from this careful review are less is known empirically about the developmental nature of strategic processing that remains under-studied; the quality and conditionality of strategy use is of greater importance than the simple frequency of use; and that conditions within the learner and within the environment serve to determine which strategies prove more or less effective.

Taking self-regulation as her central construct, Zusho (2017) used the extant literature to try and disentangle self-regulated learning (SRL) from student approaches to learning (SAL) and what she terms engagement perspectives. Among the conclusions that Zusho reaches is that all three of these perspectives entail learner adaptation—cognitive, affectively, and behaviorally. She also concludes that there is an inherent mismatch between the conceptualizations and models of student learning and how those models are measured and analyzed.

Further, picking up threads that Zusho established, Asikainen and Gijbels (2017) expressly consider the literature pertaining to student approaches to learning (SAL) and how those approaches may develop during tertiary education. These authors acknowledge the expectations that success in higher education means that students exit with not only critical knowledge and skills but also habits of mind that support professional success and lifelong learning. What

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Asikainen and Gijbels regrettably determined was that their efforts had reached “a dead end.” Specifically, their analysis of the 43 identified investigations revealed no consistent evidence that a higher education translated into more critical analytic ways of thinking or performing. They consider various theoretical and methodological aspects of the SAL literature they reviewed that might have contributed to their failure to find a consistent, positive relation between higher education and a deeper and richer approach to learning among tertiary students.

What Vermunt and Donche’s (2017) review has in common with Asikainen and Gijbels’s (2017) analysis is the underlying assumption that there is a relatively stable pattern that individuals manifest in their approaches to learning. If such patterns were not relatively stable, then there would be little utility in their identification nor any sense of how those patterns iterate or adapt. While speaking generally about patterns of learning, these authors focus specifically on 23 studies conducted since 2004 that used the Inventory of Learning Styles (ILS; Vermunt & Verloop, 1999). They overview these studies and come to the judgment that there is even more dimensionality than had been previously considered in the ILS literature. The last contribution by Fryer (2017) is a fitting closure to this special issue in that he attempts to find some means of integrating or at least reconciling the various models of learning in higher education that populate the literature. Using perceived control and need for competence as potential unifiers, Fryer argues that the seemingly significant differences among models he identifies may well be bridged, setting the foundation for a “mega-theory” of learning within higher education.

As with Fryer, I see threads that weave through all of the contributions of this special issue. However, those common threads in my judgment do not forge the framework for the type of meta-theory of learning in higher education, Fryer envisions—that is, until and unless the underlying questions of constructs, context, and continuity can be resolved. Let me first explain what I mean by this alliterative triad and the barriers I feel each creates to an integrated theory of learning within tertiary education. After expounding on the conditions that appear to work against the goals that these experts articulated in their individual reviews, I will offer ways *over*, *around*, and *through* those perceived barriers that I would hope that those invested in tertiary education would see as viable.

Constructs and the Search for Conceptual Clarity

Among the five reviews included in this important issue, there is certainly no shortage of constructs that the authors have linked to student learning in higher education. Just a sampling of the more central constructs in these articles include metacognition, self-regulation, self-regulated learning, student approaches to learning, strategic processing, deep-level and surface-level strategies, motivated learning strategies, engagement, motivation, perceived control, and need for competence. What I generally found indicative of these detailed reviews, as with so much of the educational and psychological literatures, is the absence of explicit and shared notions as to what any of these constructs, which are regarded as core to the learning in higher education, mean.

The closest to an explicit definition could be found in the article by Zusho (2017), who delved into the construct of student engagement. Specifically, in introducing various theoretical orientations to engagement, Zusho acknowledges the variability in conceptualization for this construct. She does so by noting that while one researcher may equate engagement to

student effort, others describe it in terms of *student involvement* or *academic and social engagement*. She also identifies benchmarks for higher education programs that promote student engagement derived from national surveys (e.g., National Survey of Student Engagement [NSSE] Institute, 2017). However, what is never forthcoming in this detailed explication is a conceptualization of engagement abstracted from such salient behavioral or psychological manifestations or from program benchmarks.

Why does the explication of these key constructs matter? As I have repeatedly argued (e.g., Alexander, Schallert, & Hare, 1991; Murphy & Alexander, 2000), there is no reason to assume that even the same terms being voiced by researchers convey the similar meanings. Take the prior description of engagement offered by Zusho (2017) as a case in point. As these authors acknowledge, the term engagement represents a bit of a conceptual quagmire with varied interpretations arising from different theoretical and empirical communities. As someone who identifies herself as a “cognitive contextualist” (Alexander, Schallert, & Reynolds, 2009), my conceptualization of engagement does incorporate an element of *involvement in* or *interaction with* as noted by Zusho. Yet, my conceptualization also entails individuals’ reflection or analysis of ideas rather than activities or conditions. Consequently, engagement as I conceptualize, it could transpire with no external behavioral marker. I also do not presume that engagement inevitably leads to learning or development, although it often does. Unless my working definition of engagement is made public within my writings or my presentations, there is no way for others to ascertain whether they share my interpretation of the construct. In effect, when researchers do not explicate their definitions of key constructs, they introduce a degree of conceptual ambiguity. And when the process of communicating theory or research starts with conceptual ambiguity, theory integration is far less likely to result.

Perhaps, one might argue, researchers do not routinely define their key terms because a good portion of the educational lexicon is well established. For instance, researchers may not have to define “motivation” or “motivated learning strategies” because those terms are common knowledge—readers already know their meaning. If only those were true. One of the hallmarks of the social sciences is that there is no codex, no construct dictionary to which one can refer. Nowhere is that more evident than in the repeated use of the word “strategies” that weaves its way through almost all of the contributions in this special issue. What precisely establishes a procedure as a strategy? How do we distinguish between the highly skilled and the very strategic in higher education? Theoretically, researchers have successfully characterized strategies as deep, surface, motivated, cognitive, or metacognitive with some degree of validity and reliability. But in empirical practice, how is one to determine whether the intentionality, effortfulness, or volition associated with strategies—in contrast to habituated and cognitively effortless nature of skills—is manifested (Afflerbach, Pearson, & Paris, 2008; Harris, Alexander, & Graham, 2008)? Certainly relying on self-report measures cannot illuminate those differences in compelling or convincing ways. Even data-capture techniques like eye tracking cannot reliably tell whether the documented behavior represented the learners’ habituated actions or some planned maneuver. Thus, in practice, researchers are left to presume that what they are witnessing constitutes strategic behavior.

There may well be those reading this commentary who find my criticisms unwarranted and my fears unfounded. Does conceptual clarity really matters all that much when it comes to differences between strategies and skills? What should matter is the consistency of findings that emerge across a range of studies. Perhaps. However, when researchers are trying to determine whether there are rather stable patterns in the ways tertiary students approach their learning or how adaptive they reveal themselves to be, then it is essential to disentangle those

procedures that they routinely and habitually employ from those that they evoke in a planful and conscious manner. Simply asking students what they routinely do or what they did in a given situation is insufficient evidence to identify the skillful student from the adaptive or strategic student—although this may be the best researchers can do.

Thus, achieving theoretical integration or compatibility through even well-done systematic reviews of the literature rests to some extent on blind trust that researchers plying the same words mean the same things. Perhaps, one can skirt these conceptual barriers if the same measures are utilized in research and similar patterns in outcomes are reported. In such cases, as in Vermunt and Donche's (2017) review that focused only on studies using the ILS, there is at least implicit definition of a given construct as a result of the manner in which that construct is operationalized. Yet, here again, there are serious issues to be confronted. For one, questions of construct validity still must be addressed, which brings one back to the need for conceptual specificity. For another, as with the Vermunt and Donche review, there are often other measures involved, tapping into additional constructs that must be conceptually verified.

Further, as researchers are well aware, the measures they employ shape the patterns in outcomes they might unearth. There is no pure way to disambiguate the findings reported from the measurement tools plied. Thus, to claim some general and consistent patterns without acknowledging that those patterns were consequentially associated with the questions asked or the problems solved is overreaching the data. In essence, the discoveries researchers are apt to make about learning in higher education are confined to some extent to the measures they employ.

Context: Establishing the Uniqueness of Higher Education

I certainly concur with the editors of this special issue that there is a strong need to examine the nature of learning within higher education and what systematic reviews of the literature can uncover about that nature. It is also evident that, within these articles, the authors have confined their searches to empirical studies that involve tertiary students. Therefore, in terms of the parameters of conclusions reached in each contribution, the goals of the editors for this issue have clearly been met. However, what about the nature of learning within higher education that has been revealed in contrast to other academic periods? Relatedly, what is it about higher education that gives rise to the patterns these contributions have afforded?

When it comes to characterizing education within higher education and then relating findings to those characterizations, not all authors of these reviews are not exceptionally illuminating. However, there are flashes of awareness that emerged in these articles. For instance, in her treatment of student engagement in the context of higher education, Zusho references the benchmarks that have emerged in national surveys (NSSE, 2017). A perusal of those benchmarks reveals that many are just as pertinent to elementary or secondary education as they are to higher education (e.g., active and collaborative learning; quantity and quality of student/[teacher] interactions; enriching educational experiences). Interestingly, in the Australasian version of this survey (Coates, 2010), there was an added benchmark dealing with the integration of employment-focused work experiences into students' course of study. This one program benchmark appears to be the most higher education specific in the entire list.

Further, while noting some of the challenges faced by institutions of higher education, Asikainen and Gijbels (2017) delve into the relation between higher education and student approaches to learning in their review. In terms of one dimension of SAL, Asikainen and

Gijbels sought to ascertain if an anticipated increase in deeper, more critical analysis among tertiary students manifests over time. Their explication as to *why* such an increase should be anticipated was a strength of their review, even if the outcomes were less than satisfying.

To a somewhat lesser degree, Fryer (2017) also reflects on the characteristics of higher education as a context of learning in his treatment of perceived control and need for competence as constructs that permit connections between individual differences and the learning environment within higher education. As to the nature of higher education, Fryer echoes the higher education challenges expressed by Asikainen and Gijbels, such as older and more diverse student populations, and concerns for promoting lifelong learning. Yet, there is less of the psychological analysis offered by Asikainen and Gijbels as to why the specific features of higher education contexts interact with learner traits to propel perceived control and need for competence to such prominent roles in theory integration. For example, perceived control, as referenced by Fryer, refers to individuals' beliefs that they can exert influence on their current circumstances. While often treated as a psychological trait, it might be argued that this sense of control might nonetheless undergo change as individuals' acquire knowledge and skills pertinent to specific situations. In higher education, which is an optional pursuit, learners likely become more goal-directed in their studies and presumably more skilled as a result of their studies. Thus, there seems to be more about the interplay between perceived control and higher education that merits exploration.

For the remaining two contributions to this special issue, the specific nature of higher education learning plays a less transparent role beyond the identification of pertinent literature to be reviewed. Vermunt et al. (2017), for example, in attending to discernible patterns in tertiary students' self-reported learning approaches, note that there were differences in patterns across countries. They attribute these varied patterns to the fact that there seems to be more consistency between students' self-reported perceptions of learning and their actions in some countries than in others. But this interpretation does not illuminate what role the character of higher education in those countries might play in students' voiced perceptions.

Like the Vermunt et al. review, Dinsmore's (2017) examination of strategic processing for tertiary students is driven more from the perspective of tertiary students than by the nature of higher education. This approach contrasts to that of Asikainen and Gijbels who focus more theoretically on the characteristics of contemporary higher education than on the characteristics of the students who attend those institutions. What is especially strong about Dinsmore's article, as a consequence, is his ability to link the outcomes of his review back to theories of students' academic performance and development.

Overall, there is an intriguing paradox about tertiary students that needs to be acknowledged. On the one hand, so much of the empirical literature in educational psychology has drawn on tertiary students as participants of choice, perhaps understandably so given their ready access. On the other hand, there has been less concerted effort to use that literature to construct models and theories that speak specifically to learning within that educational context. The articles in this special issue are a step in the right direction in that they put higher education as a learning environment in the foreground. Yet, much more needs to be done to provide a full and compelling portrayal of learning at this academic stage.

Continuity: The Before and the After

To this point, I have discussed the conceptualization of the constructs and the explication of the interplay between those constructs and the characterization of higher education within the

contributions to this special issue. The final issue I want to raise reflects my long-term concern for the academic development and for the transformations that learners undergo in their knowledge, strategic abilities, and interests as they progress in their journey toward expertise. This perspective toward a more developmental examination of learning makes me sensitive to questions about what learners bring to any educational experiences, as well as what they carry forward from those experiences. I acknowledge that this was not the focus of this special issue, and that I cannot necessarily hold these contributions to this more developmental perspective. Nonetheless, when I read the very well-crafted reviews that comprise this special issue, I was compelled to ask how the characterizations of learning in higher education give adequate consideration to pre-existing conditions that must unquestionably contribute to the patterns and profiles these authors proffered. Let me offer a few cases in point to frame this discussion.

When there is a desire to capture student approaches to learning or particular “styles” that students manifest when they are academically engaged, there is the underlying question of when and how those approaches or “styles” take shape. Is it likely that those categorized as *reproduction-directed*, *meaning-directed*, *application-directed*, and *undirected* (Vermunt et al., 2017) in their learning at the tertiary level would be similarly categorized in the middle school or at the secondary level? If we are to understand the interaction between learner and context, then it becomes imperative to look not only across the tertiary years but also across the students’ academic career. Even when there is evidence of movement in student approaches, as was described in several reviews, are these enduring adaptations or simply temporary adjustments to the immediate educational demands? Again, this question cannot be answered without examining data prior to and following the tertiary period.

As I attempted to establish in the Model of Domain Learning (Alexander, 1997, 2003), even the patterns of learners’ strategy use, be those strategies deep, surface, motivated, self-regulatory, cognitive, or metacognitive in nature, cannot be nested solely within any academic period. Whether learners delve deeply and critically is reflective of the knowledge and interests they bring with them. As Dinsmore (2017) and others (e.g., Asikainen & Gijbels, this issue) suggest in their reviews, higher education should contribute to students’ knowledge base, especially in their areas of academic concentration. Higher education likely affords students more opportunity for choice in the courses they take and, thus, be an environment where perceived control is more apt to be manifested. However, it is again the interface of students’ pre-existing knowledge base, individual interests, and sense of efficacy that likely informed their decisions to pursue higher education or to major in one field of study over another.

Why this observation matters is that the patterns revealed in these reviews treat higher education learning unidimensionally, without a disentangling of required from optional courses, those in students’ chosen area of study from those outside. Perhaps, if just these factors were used to complexify the label of “higher education,” the reported findings in the reviews or the emerging patterns might be clearer or even more informative. I have no premonition that these potential trends will, in fact, emerge, but it is worth putting such questions to empirical test. It is certainly fair to say that unless researchers regard the intricacies of higher education in greater detail beyond the challenges such institutions face and interject more of students’ orientation to those institutions, the more precise nature of learning in higher education may not be understood.

Concluding Thoughts

I greatly appreciate the opportunity to read and respond to the reviews that afford an updated and intriguing portrayal of learning with higher education. All those who are privileged to read these articles will come away with new insights about what it means to be a learner within contemporary institutions of higher education. Since the last special issue on the topic of learning in higher education was published by *Educational Psychology Review* in 2004, changes have been occurring in higher education. This is a claim that the contributions to this special issue have effectively demonstrated. During that same period, the empirical literature pertaining to learning at the tertiary level has grown. The combination of these two factors more than justified the need for this compilation. The collective findings and trends captured in the pages of this issue are the rewards readers will reap as a consequence. I can only hope that the comments and questions I have raised in this commentary will serve to heighten the perceived value of this special issue to the literature and perhaps suggest directions for the next such special issue.

Compliance with Ethical Standards

Conflict of Interest The author declares that there is no conflict of interest.

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