Editorial: Practical Tuning – Achievable Harmony

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Achieving Harmony: Tuning into Practice was the theme of the 2015 STLHE conference in Vancouver. This volume of *CELT* collects those papers presented at the conference that were reworked into scholarly manuscripts, peer reviewed, and edited. Since the conference, I have been thinking more about what it means to achieve harmony in our classrooms and what can be done to tune our teaching praxis. Are there ways in which teaching praxis can be tuned in order to better harmonize the learning goals that instructors set for their students with those that students might have set for themselves?

At the end of 2015, an active online conversation developed in response to the 2014 publication of a meta-analysis of the large body of research published on the impact that active learning can have on student learning outcomes (Freeman et al., 2014). This study conclusively indicated that implementing active learning in the classroom can positively impact student academic performance. How active learning achieves improved student learning outcomes is still being investigated, but is based on a constructivist model of learning (Dolan, 2015). Active learning works when it engages students with the material and with each other (Linton, Farmer, & Peterson, 2014), but for it to be effective it must also involve students' reflection on the activity (Linton, Pangle, Wyatt, Powell, & Sherwood, 2014). It is this last portion that likely enables students to achieve deep learning, because it involves active reconstruction of their knowledge structure: Influencing students' mental models of the world is likely how active learning improves students' academic performance (Ambrose, Bridges, DiPietro,

Lovett, & Norman, 2010a; Weimer, 2013b). Some interpret the evidence of the efficacy of active learning to suggest that it may be unprofessional to rely solely on didactic lectures due to the increased risk of failure with this instructional strategy (Freeman et al., 2014; Wieman, 2014). The online conversation that developed illustrated how polarized the conversation had become, with defenders of the lecture suggesting that it engages students in cognitive effort (Worthen, 2015) whereas advocates for active learning argue that student learning requires application of the material, interaction with peers, and taking responsibility for the rote portion of learning (Eyler, 2015; Weimer, 2015). Those who favour the lecture seemed to be defending a past experience viewed with rose-coloured glasses and, in contrast to assertions to the contrary, lecturing was really giving students what they wanted: a passive learning experience into which students could decide when and how much they would engage (Schuman, 2015). Those who extolled the virtues of the lecture painted themselves as being counter-cultural, because active learning is perceived to be in vogue in academic circles (Worthen, 2015). Students caught between these poles requested that instructors simply listen to their learning needs (Barone et al., 2016) while other writers suggested that lecturing is sometimes necessary as an efficient means of clarifying student misunderstandings, but that this should be accompanied by learning activities that engage students in the course content (Bruff, 2015; Franke, 2015).

This pitting of active learning against lecturing produces a dynamic, in which it appears that the teaching and learning cultures are not in harmony (Venkatesh et al., 2013). On the one hand,

students are believed to find active learning to be a disruption in their learning culture. On the other hand, instructors are said to have a growing sense that the lecture is falling out of favour within academia while at the same time still being the normative discourse (Ellis, 2010). How can we tune our teaching practice in such a way to ensure that students and instructors are on the same page? How can we achieve harmony in our teaching by tuning our learning experiences?

When navigating the discord over lecturing and active learning among students and faculty, I have found it especially helpful to consider them merely at either end of the continuum of teaching and learning. Where we tune the dial within the continuum of lecturing and active learning is contingent on the level of the intellectual development of our students. Perry's scheme of intellectual development can be useful in thinking about this (Allen, 1981; Kloss, 1994; Perry, 1998). If we understand most students entering university to be predominantly dualistic in their thinking, then they are going to be looking to an authority figure (e.g., the professor) to direct them to the right and wrong answers. However, asking students to instead engage with their peers in active learning will disrupt their dualistic view of the world, because active learning often invites them to consider that their fellow students may be sources of useful information and that there may be different ways of approaching a problem. Students may feel abandoned, believing that their instructor is not meeting their expectation of the professional responsibilities of instructing them, or providing the correct answer or approach to solving a problem; they might think that they need to make up for this by teaching themselves (Spence, 2004; Weimer, 2014). Students are frustrated by the difficult work of teaching themselves (i.e., learning), but the pedagogical research shows that having them struggle with the material to develop an answer or solution on their own produces deep learning (Brown, Roediger III, & McDaniel, 2014a). What learners don't know can hurt them, and novices—naïve students—imagine that the lecture is the normative idiom of university teaching (Ellis, 2010) while being unaware of the impact active learning

might have on their grades (Wieman, 2014). Students don't realize that lectures tend to be useful only for transmitting information, but are no better in that regard than reading the class assignment (Bligh, 1998). To achieve deep learning requires focused and active study, not passive listening on the part of the student (Bramming, 2007).

Frustration or fear of failure, however, can interfere with learning (Cox, 2009; Lane, 2008). The efforts of many instructors to produce a safe learning environment may be an attempt to alleviate student annoyance and dread when learning (Bledsoe & Baskin, 2014): Courses are designed such that it is safe for students to test-drive their new learning without the risk of failing to meet the standard of expertise. That is not to say that frustration will be completely removed from the learning environment. Rather, student dissatisfaction needs to be managed so that learning does not seem impossible; the learning environment needs to include desirable difficulties—ones to work through—and not impossible tasks (Brown et al., 2014a).

If the goal of post-secondary education is to develop independent learners, then we need to tune our practice so that students are supported in their maturation from dualistic thinking to an understanding that there are multiple ways of knowing, and that correct answers may depend on the specific context, information available at the time, or worldview. Thus, instructors must harmonize their teaching strategies such that students are nudged along their intellectual development (Ambrose, Bridges, DiPietro, Lovett, & Norman, 2010b). This means leading students away from dependence on their instructor for all pertinent information (Grow, 1991) and encouraging them to widen their search for answers and research their own solutions, including even the creation of knowledge that was previously unknown. After all, the ultimate independent learner is a researcher. To do this effectively, we need to consider our students' intellectual needs (Barone et al., 2016). This will surely require judicious use of lecturing for novice learners in order to bring together texts and other resources, which students would otherwise initially find difficult to locate or interpret (Friesen, 2011), but with the goal of moving students

toward more student-centred learning that includes active learning (Weimer, 2013a). Explaining our reasons for choosing the instructional strategies we implement by sharing the theory and evidence that suggest their effectiveness might further impact student learning by encouraging student buy-in (Seidel, Reggi, Schinske, Burrus, & Tanner, 2015). In essence, we need to include students in the scholarship of teaching and learning by modelling for them the scholarly activity that is learning and teaching (Bovill, Cook-Sather, & Felten, 2011).

These issues are considered in the papers contained in this ninth volume of *CELT*, and are considered in five sections: (1) Tuning Our Practice – Invited Papers, (2) Achieving Harmony through Our Learning Experiences, (3) Practical Harmony in Our Teaching Experiences, (4) Tuning Achievement with Metacognition, and (5) Achievable Practice through Learning Environment Design. The first invited paper is authored by 2015 keynote presenter, Dee Fink, in which he contrasts his *Five High-Impact Teaching Practices* with Kuh's High Impact Practices (Kuh, 2008), maintaining that these five teaching practices are more easily implementable by individual instructors in their courses, while many of Kuh's practices require implementation on an institutional level. In the second invited paper, *Expanding on #YouDoYou*, six of the 2015 cohort of 3M Student Fellows reflect on their educational experiences and call upon instructors to develop a more student-centred teaching praxis, while supporting their development as independent learners.

The second section considers the learning experiences of our students. In *Original Undergraduate Research in Classroom Contexts*, Drs. Manarin, McGrath, and Carey describe an assignment that tiers the research process throughout the term via a series of journal entries, in which students reflect on the research experience. Authors Cockfort *et al* follow this with their paper *New Interdisciplinary Science Course for First-Year Faculty of Science Students*, which reports preliminary results from their course pilot. Similar to McGrath *et al*, this IDS course attempts to scaffold the scholarly experience that is university and college by first giving students the tools to be academically successful and

then giving students in subsequent years the experience of tutoring first-year students how to succeed in their undergraduate studies. *Going Blended with a Triple-Entry Activity* by Lannie Kanevsky, Cindy Xin, and Ilana Ram outlines an online assignment that facilitates both writing and peer review for students using the Marginalia program, and seems to promote students' preparation for class and the development of a learning community. The last paper in this section, *Flexible Learning Strategies in First through Fourth-Year Courses*, by Alice Cassidy and colleagues, describes a student-centred approach that facilitates when, how, and what students learn through community-based learning and projects with the intent to promote student engagement, and thus, learning.

Often our teaching practice is influenced by the practical realities of everyday life. The papers in the third section consider how it is possible to achieve a practical harmony in our teaching experiences. In *"Can I have a grade bump?"* authors Kristie Dukewich and Suzanne Wood consider how faculty manage student requests for extensions and higher grades. Their analysis suggests that there is no correct answer and that removing responsibility from faculty for making these decisions may make us weaker academics and poorer teachers, because it removes the need for faculty to be reflective about the administration of their teaching policies. Jacqueline Beres and Jess Dixon report, in *Examining the Role of Friendship in Mentoring Relationships*, that there is no consensus over whether friendship promotes or hinders the development of graduate students as researchers and professionals, indicating that further research is necessary. Martha McAlister discusses, in *Emerging Communities of Practice*, some of the attributes of these communities, suggesting approaches to their intentional formation and how they may facilitate the business of education in which collegial conflict is necessary and sought. The last paper in this teaching experiences section, *Faculty Perceptions of Challenges and Enablers of Effective Teaching in a Large Research-Intensive University* by Briseño-Garzón *et al*, discusses a faculty survey that asked what instructors consider to promote or obstruct effective teaching. One challenge identified

by surveyed faculty that resonates with previous publications (Arum & Roksa, 2011; Pocklington & Tupper, 2002) is an institution's focus on research, which can produce a culture that views teaching as interfering with research.

The fourth section of papers considers how to improve both students' learning, and instructors' teaching by being metacognitive about our educational processes. Gail Frost and Maureen Connolly suggest in *Is Fine-Tuning Possible with Grade-Focused Students?* that concentrating on grades can interfere with risk-taking, a necessary component for deep learning. They offer a number of formative assessments and activities intended to create the safe environment in which students need to practice their new-found knowledge. The goal of these formative assessments and educational activities is for students to understand that true learning takes time and repeated practice: An approach that counters a culture of binge learning (Bain, 2004) and the assumption that immediate feedback will produce spontaneous learning, rather than the development of understanding. In *Making Students' Metacognitive Knowledge Visible*, Petra Menz and Cindy Xin report that reflective writing assignments engaged the metacognition of math students and that the level of metacognition was impacted by the type of reflective prompt provided to students. Giving students some responsibility for how they are assessed links grading to student-centred teaching and provides students with the opportunity to consider the place of assessment (Is it formative, summative, or both?) and how that can have an impact upon students' learning – student-centred learning produces deep learning when students reflect on the experience (Brown, Roediger III, & McDaniel, 2014b). Nicky Didicher discusses a couple of different approaches to assessment in *Bento and Buffet* that offer students some say in how they are evaluated, including what is assessed and the weighting of that appraisal. The penultimate section of this volume closes with *Balancing Openness and Interpretation in Active Listening*, in which Joseph Topornycky and Shaya Golparian articulate the importance of actively listening to faculty during educational consultations. Their argument is that educational developers must

be open to what instructors are saying/expressing, but at the same time they should not simply record instructors' thoughts. Instead, the role of educational developers is to facilitate the thinking of teachers, which requires developers to interpret what faculty are saying in order to clarify the issue at hand. They suggest that active listening is relevant to everyone in the academy whose position requires a consultative role; instructors, for example, need to develop the ability to actively listen to their students in order to facilitate students' development as independent learners.

The last section of this ninth volume of *CELT* considers how the design of our learning environments impacts whether teaching and learning are achievable. In *Standing to Preach, Moving to Teach*, Victoria Chen, Andy Leger, and Annie Riel suggest that physical space impacts our ability to use student-centred teaching practices, and influences how those teaching practices are perceived by students taught in classrooms that are flexible (i.e., active learning) versus less-flexible (i.e., traditional). *Breathing Life into the Syllabus* by Mark Feltham and Mary Anne Krahn documents the interdisciplinary conversation that occurred between Nursing and English faculty regarding the professional writing style used in Nursing and good writing style in general; a conversation that was required in order to develop a writing skills course relevant to a discipline outside of English. The last three papers move the discussion from what happens inside the classroom to the institutional and national conversations that shape students' learning. Simon Albon, Isabeau Iqbal, and Marion Pearson provide advice on how to make strategic planning efficient and less painful in *Strategic Planning in an Education Development Centre*. They suggest that, although there are many resources available for strategic planning, participants who anticipate the messiness of the process will likely have less stress. Cramer *et al* suggest, in *The Marketing of Canadian University Rankings*, that the ranking is poorly done and has the unfortunate effect of misinforming students and their families regarding which institution might best meet their educational needs. Finally, *CELT 2016* closes with *Mapping the Past, Present, and Future of Teaching Leadership Chairs*

in Canada by David Andrews, Judy Bornais, and Ken Cramer, in which they compare the nascent Canada Teaching Leadership Chairs program to Canada Research Chairs. Their paper argues that the teaching chairs program may provide leverage to increase support for excellent teaching by influencing hiring and tenure/promotion policies.

Assembling a volume of *Collected Essays on Learning and Teaching* requires a team effort that stretches across Canada and beyond. Robert Lapp and Dianne Bateman provided support from our publisher, the Society for Teaching and Learning in Higher Education. Samantha Christensen and Sara Dyck did excellent work copyediting the 21 pieces in this volume with Alexandra Malley alerting us to typos during proofreading. *CELT* continues to receive the institutional support from the University of Windsor, which hosts the servers housing *CELT* and provides technical assistance from their Leddy Library when the operation of the Open Journal System is not intuitively obvious. The University of Alberta also provides institutional support in the form of a grant from the Office of the Vice-President (Research) in support of editing scholarly journals. In addition, the Department of Science, at the Augustana Campus, donates the time of Lois Larson to serve as *CELT*'s editorial assistant. Finally, 52 reviewers from around the world contributed to developing the published articles. Without all of your help and support, this volume of *CELT* would not be possible. The editorial board thanks everyone involved.

References

- Allen, R. D. (1981). Intellectual development and the understanding of science: Applications of William Perry's theory to science teaching. *Journal of College Science Teaching*, 11(2), 94–97.
- Ambrose, S. A., Bridges, M. W., DiPietro, M., Lovett, M. C., & Norman, M. K. (2010a). How does the way students organize knowledge affect their learning? In *How Learning Works: Seven Research-Based Principles for Smart Teaching* (pp. 40–65). San Francisco, CA: Jossey-Bass Publishers.
- Ambrose, S. A., Bridges, M. W., DiPietro, M., Lovett, M. C., & Norman, M. K. (2010b). Why do student development and course climate matter for student learning? In *How Learning Works: Seven Research-Based Principles for Smart Teaching* (pp. 153–187). San Francisco, CA: Jossey-Bass, an imprint of Wiley.
- Arum, R., & Roksa, J. (2011). *Academically Adrift: Limited Learning on College Campuses*. Chicago, IL: University of Chicago Press.
- Bain, K. (2004). How do they treat their students? In *What the Best College Teachers Do* (pp. 135–149). Cambridge, MA: Harvard University Press.
- Barone, J., Chaplinsky, C., Ehnle, T., Heaney, J., Jackson, R., Kaler, Z., ... Wade, D. (2016, January 4). A lecture from the lectured. *Vitae - The Chronicle of Higher Education*. Washington D.C. Retrieved from <https://chroniclevitae.com/news/1235-a-lecture-from-the-lectured> VIEW ITEM
- Bledsoe, T. S., & Baskin, J. J. (2014). Recognizing student fear: The elephant in the classroom. *College Teaching*, 62(1), 32–41. <http://dx.doi.org/10.1080/87567555.2013.831022> VIEW ITEM
- Bligh, D. A. (1998). Evidence of what lectures achieve. In *What's the Use of Lectures?* (5th ed., pp. 10–23). Exeter: Intellect.
- Bovill, C., Cook-Sather, A., & Felten, P. (2011). Students as co-creators of teaching approaches, course design, and curricula: Implications for academic developers. *International Journal for Academic*

- Development*, 16(2), 133–145. Retrieved from <http://dx.doi.org/10.1080/1360144X.2011.568690> VIEW ITEM
- Bramming, P. (2007). An argument for strong learning in higher education. *Quality in Higher Education*, 13(1), 45–56. <http://dx.doi.org/10.1080/13538320701272722> VIEW ITEM
- Brown, P. C., Roediger III, H. L., & McDaniel, M. A. (2014a). Embrace difficulties. In *Make it stick: The science of successful learning* (pp. 67–101). Cambridge, MA: Harvard University Press.
- Brown, P. C., Roediger III, H. L., & McDaniel, M. A. (2014b). To learn, retrieve. In *Make it stick: The science of successful learning* (pp. 23–45). Cambridge, MA: The Belknap Press of Harvard University Press.
- Bruff, D. (2015). In defense of continuous exposition by the teacher. *Agile Learning: Derek Bruff's Blog on Teaching and Technology*. Retrieved from <http://derekbruff.org/?p=3126> VIEW ITEM
- Cox, R. D. (2009). “It was just that I was afraid”: Promoting success by addressing students’ fear of failure. *Community College Review*, 37(1), 52–80. <http://dx.doi.org/10.1177/0091552109338390> VIEW ITEM
- Dolan, E. L. (2015). Biology education research 2.0. *CBE-Life Sciences Education*, 14(4), 1–2. <http://dx.doi.org/10.1187/cbe.15-11-0229> VIEW ITEM
- Ellis, C. (2010, November 16). Tweekling, iconoclasm and lecturing as a normative discourse: Reflections on two ALT-C keynotes. *cathellis13*. Retrieved from <http://cathellis13.blogspot.ca/2010/11/font-face-font-family-cambria-p.html> VIEW ITEM
- Eyler, J. (2015, October 20). Active learning is not our enemy: A response to Molly Worthen. *A Lifetime's Training: Thoughts on Teaching and Learning in Higher Education*. Retrieved from <https://josheyler.wordpress.com/2015/10/20/active-learning-is-not-our-enemy-a-response-to-molly-worthen/> VIEW ITEM
- Franke, D. (2015, October 18). Why lecture matters: A view from the trenches. *The Winds of War*. Retrieved from <http://www.milestrenuous.com/2015/10/18/why-lecture-matters-a-view-from-the-trenches/> VIEW ITEM
- Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences of the United States of America*, 111(23), 8410–5. <http://dx.doi.org/10.1073/pnas.1319030111> VIEW ITEM
- Friesen, N. (2011). The lecture as a transmedial pedagogical form: A historical analysis. *Educational Researcher*, 40(3), 95–102. <http://dx.doi.org/10.3102/0013189X11404603> VIEW ITEM
- Grow, G. O. (1991). Teaching learners to be self-directed. *Adult Education Quarterly*, 41(3), 125–149. <http://dx.doi.org/10.1177/0001848191041003001> VIEW ITEM
- Kloss, R. J. (1994). A nudge is best: Helping students through the Perry Scheme of intellectual development. *College Teaching*, 42(4), 151–158. <http://dx.doi.org/10.1080/87567555.1994.9926847> VIEW ITEM
- Kuh, G. D. (2008). *High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter*. Washington,

- DC: American Association of Colleges and Universities (AAC&U).
<http://dx.doi.org/10.1187/cbe.15-03-0049>
VIEW ITEM
- Lane, D. R. (2008). Teaching skills for facilitating team-based learning. *New Directions for Teaching & Learning*, 2008(116), 55–68. Retrieved from <http://dx.doi.org/10.1002/tl.333> VIEW ITEM
- Linton, D. L., Farmer, J. K., & Peterson, E. (2014). Is peer interaction necessary for optimal active learning? *CBE-Life Sciences Education*, 13(2), 243–252. <http://dx.doi.org/10.1187/cbe.13-10-0201> VIEW ITEM
- Linton, D. L., Pangle, W. M., Wyatt, K. H., Powell, K. N., & Sherwood, R. E. (2014). Identifying key features of effective active learning: The effects of writing and peer discussion. *CBE-Life Sciences Education*, 13(3), 469–477. <http://dx.doi.org/10.1187/cbe.13-12-0242> VIEW ITEM
- Perry, W. G. (1998). *Forms of Ethical and Intellectual Development in the College Years: A Scheme* (revised). San Francisco, CA: Jossey-Bass Publishers.
- Pocklington, T., & Tupper, A. (2002). *No Place To Learn: Why Universities Aren't Working*. Vancouver, BC: UBC Press.
- Schuman, R. (2015, October 21). Professors shouldn't only teach to younger versions of themselves. *Slate*. Retrieved from http://www.slate.com/articles/life/education/2015/10/professors_shouldn_t_only_teach_to_younger_versions_of_themselves.html VIEW ITEM
- Seidel, S. B., Reggi, A. L., Schinske, J. N., Burrus, L. W., & Tanner, K. D. (2015). Beyond the biology: A systematic investigation of noncontent instructor talk in an introductory biology course. *CBE-Life Sciences Education*, 14(4), article 43.
<http://dx.doi.org/10.1187/cbe.15-03-0049>
VIEW ITEM
- Spence, L. (2004). “The professor made us do it ourselves.” *The Teaching Professor*, 18(4), 6.
- Venkatesh, V., Jedwab, J., Rabah, J., Thomas, T., Varela, W., & Alexander, K. (2013). From disconnected to connected: Insights into the future of distance education and Web 2.0 tools in higher education. *International Journal of Technologies in Higher Education*, 10(3), 6–13. Retrieved from http://ritpu.ca/IMG/pdf/RITPU_v10_n03_6.pdf VIEW ITEM
- Weimer, M. (2013a). Learner-centered teaching: Roots and origins. In *Learner-Centered Teaching: Five Key Changes to Practice* (2nd ed., pp. 3–27). San Francisco, CA: Jossey-Bass, a Wiley imprint.
- Weimer, M. (2013b). Research: Evidence that learner-centered approaches work. In *Learner-Centered Teaching: Five Key Changes to Practice* (2nd ed., pp. 28–55). San Francisco, CA: Jossey-Bass, a Wiley imprint.
- Weimer, M. (2014, September 10). “She didn’t teach. We had to learn it ourselves.” *Faculty Focus - The Teaching Professor Blog*. Madison, WI: Magna Publications. Retrieved from <http://www.facultyfocus.com/articles/teaching-professor-blog/didnt-teach-learn/> VIEW ITEM
- Weimer, M. (2015, November 4). Step away from the lectern. *Faculty Focus - The Teaching Professor Blog*. Madison, WI: Magna Publications. Retrieved from <http://www.facultyfocus.com/articles/teaching-professor-blog/step-away-from-the-lectern/> VIEW ITEM
- Wieman, C. E. (2014). Large-scale comparison of science teaching methods sends clear

message. *Proceedings of the National Academy of Sciences of the United States of America*, 111(23), 8319–20. <http://dx.doi.org/10.1073/pnas.1407304111> VIEW ITEM

Worthen, M. (2015, October 18). Lecture me. Really. *The New York Times*, p. SR1. New York, NY. Retrieved from http://www.nytimes.com/2015/10/18/opinion/sunday/lecture-me-really.html?_r=0 VIEW ITEM