Problem Based Learning and the Master of Divinity Program

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ABSTRACT: Problem-based learning has a long history in professional education. After a brief description of its use in medical education the question is asked: is there a meaningful role for problem-based learning within seminary education? The article traces dynamics in the seminary that contribute to academic versus professional tensions in the MDiv program and suggests that problem-based learning could be employed as a way to develop skills such as critical thinking, research, substantive dialogue, and clear writing, as well as a way to equip men and women for their roles as ministry professionals. The article concludes with suggestions for implementation and raises questions and cautions for further research.

The inception of problem-based learning

Problem-based learning (PBL) was given birth in medical education. Medical students traditionally spend the first two years studying their basic and clinical sciences (gross anatomy, biochemistry, pharmacology, and so on). Along the way, there are large and sundry areas of knowledge to master and exams to pass, not least the intimidating national test (U.S. Medical Licensing Examination). In the third and fourth years, graduating students put to work their theoretical learning as they take care of sick patients in the clinical setting, the hospital. In these years, students become acquainted with the main specialties of the great medical encyclopedia (e.g., pediatrics, surgery, internal medicine).

However, physicians came to realize that, despite the years of intense training, many medical students and residents were simply not clinically competent. They often lacked the requisite clinical skills needed to take care of patients well. These observations led to the verdict that it does not make much sense to confine students in classrooms where they learn content and theory for two years, before allowing them to encounter the clinical setting.

At Case Western and McMaster medical schools, in the mid-60s and 70s, a new curriculum was designed based on a simple yet profound thesis: structure the curriculum so that the clinical problems form the center and backbone of the learning experience. Thus, instead of studying separate subjects (e.g., anatomy or psychiatry), students work in small groups and deliberate over carefully designed clinical problems. Professors now act as facilitators. Medical education, using this method, happens in the learning *encounter* with realistic clinical problems. PBL is now the teaching standard in many medical schools; it is also common practice in professional fields such as business, agriculture, law, engineering, social work, education, and others.[1]

The most interesting observation, for our purposes, is the similarity between the original context that led to PBL for medical students and the current situation among seminary graduates. There is a growing, if disquieting, realization in many quarters that seminaries can often frustrate the ecclesial desideratum of preparing pastors-in-training.[2] It is this modern context that elicits our hinge question: *is there a meaningful role for problem-based learning within seminary education?*

Learning opportunities in the twenty-first century

Oon-Seng Tan has argued that the learning challenge for the twenty-first century is about developing intelligences. As Ted Ward observes, real world intelligence is not about how well one does on a test but on how well one interacts with new ideas. The accomplishment of feats of memory or simple understanding are necessary intellectual capacities, but the ultimate outcomes are to learn the art of wise judgment, to engage diverse perspectives with intelligence and understanding, to apply knowledge to new situations, and to be adaptable.

Tan advocates that one of the more effective educational approaches for development of twenty-first-century intelligence is problem-based learning. Observing the tendencies for educators to resist change or to adopt the new without examining the present, Tan argues that earlier developments in educational technology simply advanced the technology and broadened the number of delivery methods. The difference in information gains between computer-assisted modes and traditional methods of classroom instruction was insignificant.[3] The tendency to use the computer as a tool for memorization or information processing is a case in point. Using technology to improve, increase speed, or individualize unexamined and ineffectual processes in teaching does not, at the end of the day, lead to advances in learning.

However, today's challenges call for determined and even drastic attention to the nature and purpose of education. Affirming that many educators do many things right, Tan nonetheless urges us to reconsider assumptions about "knowledge acquisition and participation in learning." For example, many educators have not fully grasped the effect, potential and actual, of the Internet on the role of the teacher as the source of knowledge.[4] "The dissemination of knowledge may no longer be of primary importance at some stages of education as the World Wide Web provides ready information anytime anywhere."[5]

In the immediate context, Tan is writing to inform and guide Singapore's shift to a knowledge-based economy so that it becomes a place where citizens use their talent to create value, where entrepreneurs thrive, and where people are developed through "continuous learning and participation in meaningful jobs."[6] Education, at every level, must foster continuous learning, thinking, and the development of real-world capacities and problem-solving skills. Hindering this development are "single-subject, single-classroom, single-teacher formats [that] lack generative and meaningful collaborative learning."[7] Alternatively, development is enhanced through practices such as incorporating

real-world challenges, presentation of unstructured problems, contextualization of knowledge, team learning, thinking across disciplines, encouragement of lifelong and "lifewide" learning, and so on.[8] Tan's foundational and far-reaching work for Singapore is helpful in exploring the suitability of PBL in the MDiv program.

Concerns about the academy and the Master of Divinity curriculum

Although this section offers criticisms of the academy, our intention is not to denigrate it to the exclusion of the potential benefits to the church of a viable community of scholars. As teachers, we have inherited a complex fabric of Western structures, traditions, and pedagogical institutions. These are all inescapably finite and fallen. Educators and administrators do their best to improve matters and to work within the system; but perfection, in whatever sphere, will elude us this side of the eschaton. To put it plainly: some things in this life only Jesus can fix. Nevertheless, the Lord calls us to be good stewards of his gifts. We are responsible to God and to each other for the way we pursue our callings. For these reasons, the situation in the academy presents the theological educator with a cluster of challenges.

First, there is the problem of knowledge splintered into hundreds of seemingly disconnected pieces fostering growing specialization and subspecialization. Academic specialists are increasingly unable, or fearful, to speak on anything outside their area of expertise. While there are advantages to specialization in research, one of its devastating consequences is that many MDiv students are not able to conceive of an integrated picture of what they learn.

Second, this situation is aggravated by the traditional fourfold curriculum (biblical, systematic, historical, and practical theology). Without canvassing the well-worn terrain,[9] it suffices here to say that these disciplinary distinctions undermine the flourishing of pastoral wisdom and practice. To be sure, one can defend a plausible "logic" to the disciplines, but this logic need not translate into or be housed within compartmentalized departments and courses. Nor does it follow that someone trained in a specialization need then be housed in a specialized department. Organizational structures typically result from a *decision*, not doctrine or mandate.

The traditional order of the curriculum also leads to the common student experience that practical theology is lowest in rank (theology or biblical studies occupy the top position). The situation is ironic. The MDiv curriculum is designed to prepare men and women for pastoral ministry, and yet, practical theology is functionally trivialized in students' experience. We need some form of "symphonic pedagogy," a teaching methodology that effectively integrates facets of knowledge and wisdom kaleidoscopically.[10]

Third, the traditional curriculum tends to privilege *scientia* over *sapientia*, that is, theoretical knowledge over practical wisdom, which can lead to theorists and practitioners disparaging one another's curricular domains. We would argue that the *raison d'être* of all theological education should be *sapientia* (wisdom), and, therefore, a sapiential pedagogy.[11] Further, the opposition of *sapientia* against *scientia* is not the way forward; wisdom, let it be said, must

entail knowledge/content (lest we are left with a dangerous pastoral utilitarianism). The difficulty created by the traditional curriculum structure is how to synthesize knowledge learned *and* make it good for pastoral work.

The fourth concern is the nature of the relationship between the academy and the church. This ecclesial gap is deeply frustrating for students, faculty, and church members. We recognize that much of pastoral practice is thoroughly dependent on theoretical material, whether pastors realize this or not. At the very least, pastoral practice presupposes the disciplines of exegesis, biblical theology, systematic theology, and church history. On one level, then, it is disastrous to dismiss the academy as immaterial to the church. But the problem is not the academy *per se*, but rather, the theory-practice (and church-academy) divide, which is exacerbated by a limited view of education. Similarly, one might argue that theological education would benefit from a fresh envisioning of the task of pedagogy, perhaps a directional view of teaching. On this directional view, theological education is teaching as fostering learning for the sake of wisdom.[12]

Fifth, and finally, there are differences in perspective and inevitable polarities among educators. In our judgment, two types of faculty[13] need to be in dialogue for effective implementation of any instructional alternative in the MDiv curriculum.

Faculty who identify themselves as representing the tradition of the academy

They see their role in the following terms: Content is not a commodity to be delivered. The teaching-learning transaction at its best demonstrates the potential for study to make one wise and fosters conversation about ways in which the subject matter of a discipline relates to contemporary problems. For these faculty members, the discipline is more than information. The themes, questions, and personalities represented by the discipline inspire and transform as well as inform—even when the mode of delivery is that of an engaging lecturer. These faculty are committed, however, to viewing habits of reflection and study as ends in themselves and able to enhance virtue, service, piety, the love of God and neighbor.

Faculty who identify themselves as facilitators of learning

They see their role in the following terms: Professionalism is not simple mechanics or pragmatism. The professional (and faculty member) is a careful inquirer into theory, knowing that knowledge for its own sake is not sufficient. Knowledge and practice are not separable—personal and professional decisions have to be made about knowledge to which students are exposed. In this sense both types of faculty members share the same value—transformation. However, one group holds that knowledge is a thing in itself; the other that knowledge is only effective when connected to something else—be it virtue, piety, wisdom, practice, or love for God and neighbor. Reasonable dialogue between these types of faculty would expose their similarities, allow productive dialogue over legitimate differences, and reveal semantic misrepresentations caused by the habit of using language understood only by an insider to the discipline.

Problem-based learning as one way forward

Tan, among others, is persuaded that problem-based learning is a significant innovation in education, not least because it is widely used in professional education and is no newcomer in educational design.

While there is little difference in retention of information between PBL and conventional approaches, PBL is more effective in developing problem-solving, communication, teamwork and interpersonal skills.[14] In PBL, teachers become designers and facilitators of learning. Unstructured, real-world problems become "triggers for self-directed and collaborative learning."[15] Note that Tan nowhere argues for the abandonment of content. Content is a constant in considerations of educational design. However, the ways in which content is organized, presented, and processed differ greatly. The issue is not abandoning content but examining the ways in which students engage it.

Obviously, the pedagogical distinctive of PBL is the use of problems. "Great learning often begins with preoccupation with a problem, followed by taking ownership of the problem and harnessing of multiple dimensions of thinking." And again: "Problems and the questions associated with them when strategically posed can enhance the depth and quality of thinking."[16] What is typically deemed as teaching using problems is often the presentation of exercises, sometimes complete with guidelines, or a simple case will be presented that can be discussed in one or two class periods. PBL, on the other hand, when designed well, makes use of complex real-world problems that require participants to seek multiple sorts of resources—and to cope with the reality that most problems are not solved with one right answer.

Nearly all problems are local, or have local consequences, but learners are connected globally. Inevitably, learners will confront different perspectives and cultures. They will also confront multiple perspectives from different disciplines. Though integration of disciplines in a conventional curriculum is often difficult, the very nature of the disciplines is that they are informed by other disciplines (e.g., sociology and anthropology; exegesis and church history; systematic theology and moral psychology, to cite a few examples).[17] In conventional education, students are left with the task of integrating ideas and insights on their own. In instructional approaches such as problem-based learning, they are more likely to learn productive ways of engaging insights from several fields of knowledge, and, thereby, develop the capacity to transcend the theory/practice divide.

One advantage for problem-based inquiry is recognized when we note that specialization and the conventional structure of the curriculum is a persisting reality. Presumably, any discipline offers viable sets of knowledge, affect, and skills—and is strengthened by the fact that it is informed by the questions, methodology, and subject matter of other disciplines. In well-crafted PBL experiences, while students acquire content competency as they work with colleagues and engage professional resources, they also better discern and use the various sets within and across disciplines and thus practice making informed judgments about interdisciplinary relations and their applications in real-world contexts.

Well-crafted problems are not necessarily well-ordered problems. They leave room for unstructured thinking and exploration. Often, engaging problems over a long period of time generates insights that may not appear on a list of course objectives but are nevertheless valuable. Learners engaged in serious problem analysis are developing and strengthening several cognitive functions (e.g., making connections, identifying patterns and themes, judging among alternatives, and so on).

At each point, the teacher or a proctor can be involved to question, challenge, encourage, and suggest. In PBL, the teacher does not abandon his or her role as a knowledge-presenter but is more intentional about thinking through the following: How can I design and use real-world problems as anchors around which students can achieve the learning outcomes? How do I coach students in problem-solving processes, self-directed and peer learning, and so on? How will students see themselves as active problem solvers? The teacher or proctor facilitates PBL processes (e.g., changing mindsets, developing inquiry skills, engaging in collaborative learning), coaches students in strategies for problem solving (e.g., deep reasoning, metacognition, critical thinking, systems thinking), and mediates information acquisition (e.g., scanning the information environment, accessing multiple information sources, making connections).[18]

The key to effective problem-based learning is a good problem.

In a PBL experience, someone, or some group, presents the problem. The problem stimulates inquiry where the learners engage in initial analysis (raising questions about the problem), identify what must be known or understood in order to deal with the problem, make assignments of individual and group tasks, meet together in ways that suit the group's work, meet with the teacher or proctor who helps the group clarify and sharpen questions, examine the decisions they have made about learning tasks and resources, and possibly seek additional resources. The group and the teacher meet to discuss findings and the possibility to engage in further examination of a problem incompletely or inadequately resolved.

Because it seems obvious that men and women involved in the professions need to learn to deal with real-world problems, problem-based methodology has become commonplace in virtually all professional education.[19] The teacher does not provide answers; he or she provides the context, points toward or presents key foundational concepts, and encourages collaboration, which allows participants to learn with the specialist how to function effectively in their professional roles.[20]

A good problem has several characteristics.

An ill-structured problem, as the starting place for learning, is as close to a real-world situation as possible. While some problems are less ill-structured—since they are by nature less multidisciplinary and more focused on one specific issue—a well designed, ill-structured problem will foster individual and collaborative learning, stimulate curiosity, obligate the search for primary and secondary sources, provide enough information to assist but not so much as to

shut down creative process, and is reasonable in terms of time expectations.[21] A good problem will require examination of multiple perspectives. Students should quickly see that knowledge and insight from various subjects, disciplines, and resource persons is necessary. Inevitably, the problem will reveal gaps in current knowledge, attitudes, and capacities. At this point, the habits of conventional education will be difficult to overcome. Students will falter if they are unwilling to seek information and exercise cognitive skills such as inquiry, analysis, synthesis, critical judgment, and so on. Similarly, faculty who are unwilling to suspend the conventional practice of content transmission will hinder student development in the capacities required to function as a professional.

Clearly, determination of the background knowledge both possessed and needed in order to deal with the problem is a factor in good problem design. Here Tan differs from some PBL exponents. PBL purists maintain that knowledge is gained through the process of working with the problem. Tan asserts that, "We also have to ascertain that students have the basic and foundational knowledge needed to inquire and to understand the problem."[22] To be sure, knowledge is gained and deepened through the process of seeking resources, developing questions, and so on. However, it may be necessary for a teacher to actually present or make available necessary information. Students may be given a learning package that contains summary material, the problem, expectations for advance reading, and so on. However, an "answering pedagogy" is to be avoided in PBL design.

The characteristics of good problems reveal the limitations of conventional course scheduling and time tables. PBL activities do not fit into neat curricular boxes. Conventional curriculum design focuses on content coverage and exposure to a field of knowledge (however narrowly or broadly). Conventional curriculum also tends to be organized in self-contained, noncommunicating units of departments or courses. In making the decision to organize a curriculum using problem-based learning, the assumptions that inform conventional curriculum need to be examined in light of expectations related to student learning and practice. However, it should be noted that PBL is not a replacement curriculum but an alternative design employed for sound reasons.

Several types of problems are possible.

(1) A malfunctioning system that requires intervention and/or improvement. (2) A normally functioning system where there is a need to raise or revise standards or improve quality. (3) A description of a phenomenon or an observation where students are required to examine, assess, and offer proposals or observations related to the phenomenon. (4) A problem that describes the gap between the current state of knowledge in a field, or in a particular practice, and the actual understanding or expertise needed. (5) Because decision making "represents one of the most important forms of challenges" [23] in the real world, a problem can incorporate matters related to policy, opinion, human rights, ethics, and so on. The problem reflects that such matters involve rational and emotive reasoning. (6) Finally, "Creative problems that lead to a new system design or an invention represent an important category of prob-

lems in the knowledge-based economy. Are there new ways of doing things? What are some of the possible consequences and impacts?"[24]

Clearly, there is no one right way to do problem-based learning. The elements described thus far can be employed in a variety of ways, depending on the problem and the background of the participants. The relevant question here, for our purposes, is whether PBL, at its best, is one educational design that offsets many of the challenges that beset modern theological education and, in particular, the MDiv program.

Possible approaches for the implementation of PBL in the MDiv program

Once problem-based learning is implemented, faculty teams will need to discuss processes such as integration of content areas, evaluation, and design of problems. Administrators will need to discuss various contractual arrangements with faculty. Specific training areas will need to be identified (e.g., how to design a problem, facilitation skills, and so on), resources and resource persons secured, and communication processes organized. The remainder of this document, however, simply presents possible options for implementation with some cautions.

1. Develop two parallel tracks for the MDiv: the conventional program and a problem-based learning track. In some cases PBL experiences could overlap with traditional classes.
2. Develop one class that runs throughout the MDiv curriculum in both semesters.
3. Create one or more prerequisite classes that present the technical information and/or content required for particular PBL experiences.
4. Develop PBL problems that lead students through content acquisition and conceptual understanding.
5. Design an experimental PBL course that parallels the MDiv internship experience.
6. Organize a cohort that moves through one or two years of the MDiv program together using PBL as their primary experience.
7. Organize cohorts that change each semester and that are involved in PBL for at least two semesters of their program.

Reasons for skepticism? A cautionary tale

Good pedagogical theory does not always yield good learning practice. The experienced faculty member thus has sufficient reason here to adopt caution about the pedagogical merits of problem-based learning. One is wise to ask the hard questions; PBL is no exception. We suggest eleven broad lines of interrogation that a concerned faculty member may want to pursue:

1. As with any educational design, including that which is currently in use in most seminaries, studies disagree on the efficacy of problem-based learning compared to traditional education.[25] If PBL is adopted in some part of the MDiv program, questions such as, In what ways is PBL helping us achieve learning goals for the program? In what specific areas of learning has PBL demonstrated its usefulness? will need to be asked. It is conceded that there is little difference between conventional lecture modes and PBL in terms of amount of content gained. The extent to which outcomes related to conceptual gains and development of learning capacities are better achieved by PBL-like approaches will need to be assessed.
2. The traditional theological disciplines are significantly different from medicine or business. Medical knowledge may be "always changing"—and therefore ripe for PBL. Clearly, knowledge related to biblical studies, theology, church history, philosophy, and so on is always "changing" or developing as a result of scholarly inquiry, research, and practice. But, to what extent would the nature of development in these disciplines affect the implementation of PBL? In what particular areas is development in these disciplines evident? What particular problems require investigation in these distinctive disciplines?
3. A curriculum is only as good as its students. Motivated students tend to fare well in whatever curricular circumstances they are placed; students without motivation will fail irrespective of curriculum. Suppose PBL is adopted in the curriculum. Will we discover, in the end, that the students who do well are the same students who did well with the traditional curriculum? And if so, what have we really gained?
4. The perceived purpose of the MDiv program is to develop pastors—professionally and academically. However, because the MDiv is organized and typically taught as if it were an academic degree, some students may perceive that the MDiv degree is a program leading to further studies. Therefore, students may resist PBL as a professional development approach precisely because they are using the MDiv degree as preparation for an advanced masters program or a doctorate. In this respect, a two-track MDiv is likely the sensible option.
5. The possibility of integrating PBL with a conventional MDiv program should be left open. To what extent would two separate curricular approaches (PBL and traditional) contribute to the solution of admitted problems in the current MDiv curriculum? In what settings would combining PBL with traditional, text-oriented learning be practicable? Is it possible to have clear curricular distinctions between those elements that may need to be learned through careful study and those elements that may require a PBL approach?
6. The theological school curriculum is almost hopelessly overcrowded. To simply add one or two PBL courses will exacerbate the problems faced by faculty and students trying to work with too many courses in a time-bounded degree program. Further, learning and the desire for alternative curricular designs can be held hostage by inflexible class scheduling procedures.

7. As we have described above, the learning problems are *the* central component of PBL. The learning experience is thus only as good as the problem. This implies that any PBL curriculum will need excellent problems and excellent facilitators. Some faculty do not see themselves as facilitators of learning. Given that PBL requires effective facilitation and problem design, certain faculty with the skill set, or interest in developing the necessary skills, may need to be invited as the early adopters. Further, the dean will need to give thought as to how faculty contracts can be designed in relation to the time required to develop PBL experiences.
8. The traditional curriculum works with disciplinary divisions and faculty experts. These faculty professors carry out important research in their fields, contribute to scholarship, write books, and of course, teach students. Our argument has been that this traditional framework may not always be ideal for pastors-in-training. PBL emphasizes instructors qua facilitators (not merely content experts) as well as the integration of the disciplines. Accordingly, a proposal to implement PBL in the MDiv program might force the questions: Where does this leave the academic specialist? What is the role of the scholar in a PBL design?
9. Fenwick and Parsons[26] raise the concern that PBL "teaches through problems abstracted from embodied social contexts and objectified for the [training] of preservice professionals . . ." They suggest that an objectified PBL may "reinforce the dominance of the professional elite" and privilege control over those served by the profession.[27] To what extent, therefore, has the learning experience helped students to reflect on their own habits of perceiving and responding? To what extent have students learned to collaborate with those they presume to help?
10. If PBL is understood as problem-solving activity, the student will miss the point that not all problems in life and organization are solvable.[28] When problems are constructed to give the student a good problem-solving experience "the perspectives, intentions, desires and priorities of the various actors forming the network of any situation, including the professional taking responsibility for it all, are generally rendered irrelevant by the push for productive solution that regulates problem-based practice."[29] Humility and suspending the habit of control are among the appropriate lessons in PBL; otherwise, the student will apply "cookie-cutter" responses to ill-understood situations. "A hermeneutical response to life's difficulty is not to solve it, but to understand it, interpret what it is, and seek a deeper understanding of one's changing and dynamic relationship to the changing and dynamic situation."[30]
11. The final question that must be examined in any PBL experience is the extent to which the student is equipped through this (or any other) medium for professional practice. Therefore, the role of evaluation is, in some ways, more crucial in PBL and PBL-like learning experiences than in conventional cognitive-based testing. Typically, evaluation in higher education is done poorly. Understanding the nature and practice of effective evaluation is a critical element in PBL.

Conclusion

Problem-based learning has proven to be an effective approach for professional education. Will it work in ministry education in a theological school context?

Clearly, conventional schooling creates significant challenges for the incorporation of PBL. Large numbers of students; time-bounded classes; separated disciplines of knowledge and faculty that seldom interact across the curriculum; students acculturated to a more passive and individualized learning environment; diverse faculty perceptions of knowledge and teaching; and faculty expectations of teaching load, classroom time, and assessment perspectives conspire to hinder the development of learning-focused approaches such as problem-based learning.

But let us assume a willingness to overcome these difficulties and to develop a learning environment suited to the academic *and* professional goals of the MDiv degree program. Because the program is considered a professional degree with academic and professional elements, it is necessary to consider that which will enhance the professional development of students, develop content competency, and enrich their academic capabilities. Problem-based learning is a plausible option.[31]

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ENDNOTES

1. See Barbara B. Levin, ed., *Energizing Teacher Education and Professional Development with Problem-Based Learning* (Alexandria, VA: Association for Supervision and Curriculum Development, 2001); Peter Schwartz, *Problem-Based Learning: Case Studies, Experience and Practice* (London: Routledge, 2001); Carol Baillie and Ivan Moore, eds., *Effective Learning and Teaching in Engineering* (New York: RoutledgeFalmer, 2004); David Boud and Grahame I. Feletti, eds., *The Challenge of Problem Based Learning* (London: Routledge, 1998); Barbara J. Duch, Susan E. Groh, and Deborah E. Allen, eds., *The Power of Problem-Based Learning: A Practical "How To" for Teaching Undergraduate Courses in Any Discipline* (Sterling, VA: Stylus Publishing, 2001); Imogen Taylor, *Developing Learning in*

Professional Education: Partnerships for Practice (Buckingham, England: Open University Press, 1998); David Boud, "Problem-Based Learning in Education for the Professions," *The Journal of Higher Education* 58, no. 4 (1987): 490–492. On the use of PBL outside medicine, see http://www.pbli.org/pbl/pbloutside.htm (accessed May 8, 2008). For a good news-bad news trial of PBL in an anthropology course: see http://www.udel.edu/pbl/dancase3.html (accessed May 8, 2008).

2. See Robert Banks, *Revisioning Theological Education* (Grand Rapids, MI: Eerdmans, 1999); Jackson Carroll, "The Professional Model of Ministry—Is It Worth Saving?" *Theological Education* 21, no. 2 (Spring 1985): 7–48; Linda Cannell, *Theological Education Matters* (Illinois: EDCOT Press, 2006); Ellen T. Charry, *By the Renewing of Your Minds: The Pastoral Function of Christian Doctrine* (Oxford: Oxford University Press, 1997); Edward Farley, *Theologia: The Fragmentation and Unity of Theological Education* (Philadelphia: Fortress Press, 1983); Edward Farley, *Practicing Gospel: Unconventional Thoughts on the Church's Ministry* (Louisville, KY: Westminster John Knox Press, 2003); Barbara Wheeler and Edward Farley, eds., *Shifting Boundaries: Contextual Approaches to the Structure of Theological Education* (Louisville, KY: Westminster John Knox 1991); Paul Wilkes, "The Hands That Would Shape Our Souls," *Atlantic* 266, no. 6 (December 1990): 59–88; Charles Monroe Wood, *Vision and Discernment: An Orientation in Theological Study* (Decatur, GA: Scholars Press, 1985).

3. Oon-Seng Tan, *Problem-Based Learning Innovation: Using Problems to Power Learning in the 21st Century* (Singapore: Thomson, 2003), 6.

4. Simply saying that a revolution is called for will not, of course, make it so. The divide will persist between one group of teachers who consider the Internet another form of computer assisted instruction and thus insignificant in its impact, and a second group who advocate that the Internet is one of the important factors fueling the shift from an instructional to a learning paradigm. Note the recent newspaper articles about students who annoy teachers by accessing the Internet in class, particularly, it is noted, when class gets boring. Is this simply the twenty-first century version of passing notes in class—and all we have to do is turn off wireless access (the first group of teachers)? Or, is it an indication that something potentially powerful in learning is possible (the second group of teachers)?

5. Tan, *Problem-Based Learning Innovation*, 6.

6. *Manpower 21: Vision of a Talent Capita* (Ministry of Manpower, 1999), 18, cited in Tan, *Problem-Based Learning Innovation*, 9.

7. P. Schlechty, *Schools for the 21st Century* (San Francisco, CA: Jossey-Bass, 1990), cited in Tan, *Problem-Based Learning Innovation*, 11.

8. Tan, *Problem-Based Learning Innovation*, 11.

9. There is also a helpful discussion in David K. Clark, *To Know and Love God: Method for Theology* (Wheaton, IL: Crossway Books, 2003), 165–193. Clark may not go far enough in his diagnosis but his discussion is useful. For a more critical and prophetic treatment of this issue, see Ellen T. Charry, *By the Renewing of Your Minds: The Pastoral Function of Christian Doctrine* (New York: Oxford University Press, 1997). Also consult the older, but justly famous, Edward Farley, *Theologia: The Fragmentation and Unity of Theological Education* (Philadelphia: Fortress Press, 1983).

10. The allusion is to Vern S. Poythress, *Symphonic Theology: The Validity of Multiple Perspectives in Theology* (Phillipsburg, NJ: P&R, 1987).

11. See Dan J. Treier, *Virtue and the Voice of God: Toward Theology as Wisdom* (Grand Rapids, MI: William B. Eerdmans Pub. Co., 2006).

12. It is this peculiar problem, in part, that has stimulated Kevin Vanhoozer to propose a *directional* view of doctrine as fitting participation in the drama of redemption. See Kevin Vanhoozer, *The Drama of Doctrine: A Canonical-Linguistic Approach to Christian Theology* (Louisville, KY: Westminster John Knox Press, 2005).

13. Actually, there are faculty who share both perspectives on teaching; we discuss them here as ideal "types" primarily for ease of exposition.

14. Tan, *Problem-Based Learning Innovation*, 12.

15. Ibid., 13.

16. Ibid., 17.

17. Significantly, we define a "Renaissance person" as learned—one who thinks and communicates across several areas of knowledge in relation to real world issues.

18. Tan, *Problem-Based Learning Innovation,* 44–45.

19. Notably, theological education and ministry education are exceptions. Though the MDiv program, for example, is considered a professional degree, courses tend to be arranged and taught as if it were a liberal arts or academic-research degree.

20. Significantly, it is the experiences teachers have had since the achievement of their PhD degree that defines their competency in a discipline. In what ways have faculty members who are considered competent in their disciplines developed those competencies in the years following their schooling? What can be understood about learning from this self-reflection? What clues does this self-reflection provide as faculty members seek to guide professional development experiences for students?

21. Tan, *Problem-Based Learning Innovation*, 86 (see also p. 31).

22. Ibid., 85.

23. Ibid., 80.

24. Ibid., 81.

25. Cf. Jerry A. Colliver, "Effectiveness of problem-based learning curricula: research and theory," *Academic Medicine* 75, no. 3 (2000): 259–66. This article stimulated a lively debate in medical education.

26. Tara Fenwick and Jim Parsons, "Boldly Solving the World: a Critical Analysis of Problem-Based Learning as a Method of Professional Education*" Studies in the Education of Adults* 30, no. 1 (1998): 53–56.

27. Ibid., 54.

28. For this and other reasons, the use of the word "problem" is problematic, leading some to suggest alternative nomenclature for this learning design (for example, inquiry-based learning, or project learning, and so on).

29. Fenwick and Parsons, "Boldly Solving the World," 58.

30. Ibid., 62

31. The authors wish to thank Mike Sleasman and Doug Sweeney for helpful comments on this article.