

menciptakan suasana belajar yang aman dan hangat.⁴⁰ Tidak semua dosen memiliki pengalaman menjadi tutor/fasilitator belajar mahasiswa. Oleh karena itu dosen memerlukan pelatihan spesifik berkaitan dengan perilaku kerja dan dinamika kelompok, menjadi tutor/fasilitator yang baik, psikologi belajar kekinian, dan tentu tentang PBL itu sendiri. Pelatihan dalam bidang ini dapat dilakukan melalui konferensi, workshop atau kerja kelompok antar dosen. Pengembangan profesional dalam konteks ini akan memperkuat keinginan dan kemauan dosen menerapkan PBL.⁴¹

Kesimpulan

Untuk menghasilkan lulusan perguruan tinggi yang berkualitas pada abad 21 diperlukan proses pembelajaran yang memungkinkan mahasiswa mengaplikasikan materi kuliah, bertanggungjawab pada belajar mereka, menggunakan teknologi secara bermakna, dan bekerjasama dalam belajar. PBL merupakan metode pembelajaran berbasis konstruktivisme yang sesuai dengan tujuan pembelajaran ini. Berbagai penelitian dengan ragam pendekatan dan subyek telah mengidentifikasi dampak positif bagi pembelajaran di perguruan tinggi, seperti meningkatnya kemampuan berpikir kritis, pemecahan masalah, komunikasi, dan hasil belajar mahasiswa. Namun, masih banyak perguruan tinggi, termasuk PTKI, yang belum menjadikan PBL sebagai satu tradisi model pembelajaran. Merupakan suatu tantangan bagi dosen untuk berubah dan dengan dukungan pimpinan yang memadai, maka ada peluang luas dalam upaya meningkatkan kualitas pembelajaran di perguruan tinggi (Islam) terutama dengan metode-metode konstruktivistik seperti PBL.

⁴⁰ La Trobe University, "Effective Teaching Guide: Problem Based Learning," accessed May 24, 2018. <https://www.latrobe.edu.au/ltlt/resource-library/sources-bk/effective-teaching-guide-problem-based-learning>.

⁴¹ Tanya Rogers, "Overcoming Implementation Challenges with Problem and Project Based Learning in Advanced Technological Education Programs within Community Colleges" (PhD diss., , Northeastern University, 2014), hlm. 3.

Referensi

- Akili, Waddah, "Problem-Based Learning (Pbl): How to Implement, Strategize, and Infuse Pbl in an Engineering Program?" (paper presented at the Qscience Proceedings (World Congress on Engineering Education 2013), 2014), hlm. 6-7. <https://doi.org/10.5339/qproc.2014.wcee2013.2>.
- Barbara J. Duch, Susan E. Groh, and Deborah E. Allen, *The Power of Problem-Based Learning : A Practical "How to" for Teaching Undergraduate Courses in Any Discipline*, 1st ed. (Sterling, Va.: Stylus Pub., 2001)
- Biggs, "What the Student Does: Teaching for Enhanced Learning,"
- Bouhuijs, Peter AJ, "Implementing Problem Based Learning: Why Is It So Hard?," *REDU: Revista de Docencia Universitaria* 9, no. 1 (2011): hlm. 21. <http://red-u.net/redu/files/journals/1/articles/190/public/190-196-2-PB.pdf>.
- Clarke, Karen Maria, "Understanding Effective Teaching: Perceptions from Students, Staff and Executive Managers in a Post-1992 University" (PhD diss., University Of Wolverhampton, 2015), hlm. 114-16.
- Dictionary.cambridge.org, "Problem," accessed 7 Mei 2018. <https://dictionary.cambridge.org/dictionary/english/problem>.
- Dina Octaria and Eka Fitri Puspa Sari, "Peningkatan Self-Efficacy Mahasiswa Melalui Problem Based Learning (Pbl) Pada Mata Kuliah Program Linier," *Jurnal Elemen* 4, no. 1 (2018): hlm. 66. <http://e-journal.hamzanwadi.ac.id/index.php/jel/article/view/496>.
- Dochy, Filip et al., "Effects of Problem-Based Learning: A Meta-Analysis," *Learning and Instruction* 13, no. 5 (2003): hlm. 533. [https://doi.org/10.1016/S0959-4752\(02\)00025-7](https://doi.org/10.1016/S0959-4752(02)00025-7).
- Downing, Kevin, Flora Ning, and Kristina Shin, "Impact of Problem- Based Learning on Student Experience and Metacognitive Development," *Multicultural Education & Technology Journal* 5, no. 1 (2013): hlm. 55. <https://doi.org/10.1108/17504971111121928>.
- Ersoy, Esen and Neş'e Başer, "The Effects of Problem-Based Learning Method in Higher Education on Creative Thinking," *Procedia - Social and Behavioral Sciences* 116 (2014) <https://doi.org/10.1016/j.sbspro.2014.01.790>.
- Fosnot, Catherine Twomey and Randall Stewart Perry, "Constructivism: A Psychological Theory of Learning," in *Constructivism: Theory, Perspectives, and Practice*, ed. Catherine Twomey Fosnot (New York: Teachers College Press, 2005)
- Freeman, Scott et al., "Active Learning Increases Student Performance in Science, Engineering, and Mathematics," *Proceedings of the National Academy of Sciences* 111, no. 23 (2014) <https://doi.org/10.1073/pnas.1319030111>

- Graaf , Erik De and Anette Kolmos, "Characteristics of Problem-Based Learning," *International Journal of Engineering Education* 19, no. 5 (2003): hlm. 658. <https://www.ijee.ie/articles/Vol19-5/IJEE1450.pdf>.
- Hallinger, Philip and Jiafang Lu, "Implementing Problem-Based Learning in Higher Education in Asia: Challenges, Strategies and Effect," *Journal of Higher Education Policy and Management* 33, no. 3 (2011): hlm. 267. <https://doi.org/10.1080/1360080X.2011.565000>.
- Hénard, Fabrice and Deborah Roseveare, *Fostering Quality Teaching in Higher Education: Policies and Practices: An Imhe Guide for Higher Education Institutions* (OECD Institutional Management in Higher Education, 2012)
- Howard S Barrows, "Problem-Based Learning in Medicine and Beyond: A Brief Overview," *New Directions for Teaching and Learning*, no. 68 (1996): hlm. 4. <https://doi.org/10.1002/tl.37219966804>.
- ITS Education Asia, "What Are Problems?," accessed May 5, 2018. <http://www.itseducation.asia/What-are-problems.htm>.
- J. Allan, K. Clarke, and M. Jopling, "Effective Teaching in Higher Education: Perceptions of First Year Students," *International Journal of Teaching and Learning in Higher Education* 2, no. 3 (2009) <http://www.isetl.org/ijtlhe/past2.cfm?v=21&i=3>.
- J. Biggs, "What the Student Does: Teaching for Enhanced Learning," *Higher Education Research and Development* 31, no. 1 (2012): hlm. 60. <https://doi.org/10.1080/07294360.2012.642839>. Menurut Biggs pendekatan *surface learning* mengacu pada aktivitas kognitif tingkat rendah dan menghasilkan capaian belajar yang tidak utuh, sedangkan pendekatan *deep learning* merujuk pada kegiatan-kegiatan yang tepat untuk menyelesaikan tugas sehingga hasil tercapai seraca utuh. Mendorong pendekatan *deep learning* sangat dianjurkan dalam pembelajaran apalagi di perguruan tinggi.
- J. G. Delaney et al., *Students' Perceptions of Effective Teaching in Higher Education* (St. John's, NL: Distance Education and Learning Technologies, 2010)
- J. Leppink et al., "The Effect of Guidance in Problem-Based Learning of Statistics," *Journal of Experimental Education* 82, no. 3 (2014): hlm. 391. <https://doi.org/10.1080/00220973.2013.813365>.
- Jamaludin, Mohammad Zamry et al., "Crafting Engineering Problems for Problem-Based Learning Curriculum," *Procedia-Social and Behavioral Sciences* 56 (2012) <https://doi.org/10.1016/j.sbspro.2012.09.666>.
- John R. Savery, "Overview of Problem-Based Learning: Definitions and Distinctions," *Interdisciplinary Journal of Problem-Based Learning* 1, no. 1 (2006): hlm. 9. <https://doi.org/10.7771/1541-5015.1002>.
- Kani Ulger, "The Effect of Problem-Based Learning on the Creative Thinking and Critical Thinking Disposition of Students in Visual Arts Education," *Interdisciplinary Journal of Problem-Based Learning* 12, no. 1 (2018). <https://doi.org/10.7771/1541-5015.1649>.

- Kholis, Nur, "Mencari Alternatif Formulasi Pengembangan Sistem Pendidikan Revolusioner Di Era Millenium Iii," *NIZAMIA: Jurnal Pendidikan dan Pemikiran Islam* 3, no. Juli-Desember (2000): hlm. 4. <http://digilib.uinsby.ac.id/id/eprint/24027>.
- Koh, Gerald Choon-Huat et al., "The Effects of Problem-Based Learning During Medical School on Physician Competency: A Systematic Review," *CMAJ : Canadian Medical Association journal = journal de l'Association medicale canadienne* 178, no. 1 (2008): hlm. 40. <https://doi.org/10.1503/cmaj.070565>
- La Trobe University, "Effective Teaching Guide: Problem Based Learning," accessed May 24, 2018. <https://www.latrobe.edu.au/ltlt/resource-library/sources-bk/effective-teaching-guide-problem-based-learning>.
- MediaIndonesia.com, "Presiden Minta Perguruan Tinggi Ubah Metode Pembelajaran," accessed Mei 20, 2018. <http://www.mediaIndonesia.com/news/read/127626/presiden-minta-perguruan-tinggi-ubah-metode-pembelajaran/2017-10-17>.
- P. M. Finch, "The Effect of Problem-Based Learning on the Academic Performance of Students Studying Podiatric Medicine in Ontario," *Med. Educ.* 33, no. 6 (1999) <https://www.ncbi.nlm.nih.gov/pubmed/10354316>.
- Polanco, Rodrigo, Patricia Calderón, and Francisco Delgado, "Effects of a Problem- Based Learning Program on Engineering Students' Academic Achievements in a Mexican University," *Innovations in Education and Teaching International* 41, no. 2 (2004): hlm. 145. <https://doi.org/10.1080/1470329042000208675>.
- Ribeiro, Luis Roberto de Camargo and Maria da Graça Mizukami, "An Experiment with Pbl in Higher Education as Appraised by the Teacher and Students," *Interface - Comunicação, Saúde, Educação* 9 (2005): hlm. 359. <http://dx.doi.org/10.1590/S1414-32832005000200011>
- Roya Sadeghi, Mohammad Mehdi Sedaghat, and Faramarz Sha Ahmadi, "Comparison of the Effect of Lecture and Blended Teaching Methods on Students' Learning and Satisfaction," *Journal of Advances in Medical Education & Professionalism* 2, no. 4 (2014) <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4235559/>.
- Savery, John R and Thomas M Duffy, "Problem Based Learning: An Instructional Model and Its Constructivist Framework," *Educational Technology* 35, no. 5 (1995)
- Schmidt, Henk, "A Review of the Evidence: Effects of Problem-Based Learning on Students and Graduates of Maastricht Medical School," *Oxford Scholarship Online*, accessed May 2, 2018. <http://dx.doi.org/10.1093/acprof:oso/9780199583447.003.0024>.
- SIU School of Medicine, "Innovations," accessed 19 Mei, 2018. <https://www.siumed.edu/dme/innovations.html>.

- Sockalingam, Nachamma and Henk G Schmidt, "Characteristics of Problems for Problem-Based Learning: The Students' Perspective," *Interdisciplinary Journal of Problem-based Learning* 5, no. 1 (2011): hlm. 23-28. <https://doi.org/10.7771/1541-5015.1135>.
- Surif, Johari, Nor Hasniza Ibrahim, and Mahani Mokhtar, "Implementation of Problem Based Learning in Higher Education Institutions and Its Impact on Students' Learning" (paper presented at the PBL Across Cultures, 2013), hlm. 66. http://vbn.aau.dk/files/80390072/PBL_across_Cultures.pdf.
- Tanya Rogers, "Overcoming Implementation Challenges with Problem and Project Based Learning in Advanced Technological Education Programs within Community Colleges" (PhD diss., , Northeastern University, 2014).
- Teresia, Ananda, "Menristekdikti Sesalkan Kualitas Lulusan Perguruan Tinggi," accessed Mei 3, 2018. <https://kumparan.com/@kumparannews/menristekdikti-sesalkan-kualitas-lulusan-perguruan-tinggi>.
- The University of Iowa, "Steps to a Problem-Based Learning Approach," Office of Teaching, Learning & Technology, accessed 8 Mei, 2018. <https://teach.its.uiowa.edu/file-resource/869>; Howard S Barrows, "Problem-Based Learning (Pbl)," accessed June 16, 2015. <http://www.pbli.org/pbl/>; Carmen Joham and Marilyn Clarke, "Teaching Critical Management Skills: The Role of Problem-Based Learning," *Teaching in Higher Education* 17, no. 1 (2012). <https://doi.org/10.1080/13562517.2011.590975>; Surif, Ibrahim, and Mokhtar, "Implementation of Problem Based Learning in Higher Education Institutions and Its Impact on Students' Learning."
- Tugce Gunter and Sibel Klnc Alpat, "The Effects of Problem-Based Learning (Pbl) on the Academic Achievement of Students Studying 'Electrochemistry'," *Chemistry Education Research and Practice* 18, no. 1 (2017): hlm. 78, doi: <http://dx.doi.org/10.1039/C6RP00176A>.