self-reports of lifelong learning depend on the nature of the self-report instrument. A different instrument might identify different degrees of correlation between the rubric and students' self-assessments. Consequently, we acknowledge the need for additional research that focuses on the self-report instrument. Studies that examine the self-report instrument in different samples of participants may be useful. For instance, it could be useful to compare self-reported lifelong learning characteristics between students and new graduates or alumni. Further scale development studies, such as those which critically evaluate the factor structure of the items would provide further options to instructors who seek to assess lifelong learning characteristics.

References

Association of American Colleges and Universities. (2009). *Foundations and Skills for Lifelong Learning VALUE Rubric.* Retrieved from: https://www.aacu.org/sites/default/files/files/VALUE/LifelongLearning.pdf

Aspin, D. N., & Chapman, J. (2001). Towards a philosophy of lifelong learning. In D. N. Aspin, J. Chapman, M. Hatton, & Y. Sawano (Eds.), *International Handbook of Lifelong Learning* (pp. 3-34). New York, NY: Springer.

Berlyne, D. E. (1960). *Conflict, arousal, and curiosity.* New York: McGraw-Hill.

Billett, S., & Choy, S. (2011). Cooperative and work-integrated education as a pedagogy for lifelong learning. In R. K. Coll & K. E. Zegwaard (Eds.), *International Handbook for Cooperative and Work-Integrated Education: International Perspectives of Theory, Research and Practice* (2nd ed., pp. 25-30). Waikato, NZ: WACE.

Boud, D., & Falchikov, N. (2006). Aligning assessment with long-term learning. *Assessment and Evaluation in Higher Education, 31*(4), 399-413.

Bresciani, M. J., Oakleaf, M., Kolkhorst, F., Nebeker, C., Barlow, J., Duncan, K., & Hickmott, J. (2009). Examining design and inter-rater reliability of a rubric measuring research quality across multiple disciplines. *Practical Assessment, Research, & Evaluation, 14*(12), 1-7.

Candy, P. C., Crebert, G., & O'Leary, J. (1994). *Developing lifelong learners through undergraduate education.* Canberra, Australia: National Board of Employment, Education, and Training.

Candy, P. C. (1991). *Self-direction for lifelong learning: A comprehensive guide to theory and practice.* San Francisco, CA: Jossey-Bass

Deakin Crick, R. Broadfoot, P., & Claxton, G. (2004). Developing an effective lifelong learning inventory: The ELLI project. *Assessment in Education: Principles, Policy, & Practice, 11*(3), 247-272.

Drewery, D., Nevison, C., Pretti, T. J., & Pennaforte, A. (2017). Lifelong learning characteristics, adjustment and extra-role performance in cooperative education. *Journal of Education and Work, 30*(3), 299-313.

Dyment, J. E., & O'Connell, T. S. (2011). Assessing the quality of reflection in student journals: A review of the research. *Teaching in Higher Education, 16*(1), 81-97.

Dweck, C. S. (2006). *Mindset: The new psychology of success.* New York: Ballantine Books.

Grant, A. M., & Ashford, S. J. (2008). The dynamics of proactivity at work. *Research in Organizational Behavior, 28*, 3-34.

Hojat, M., Nasca, T. J., Erdmann, J. B., Frisby, A. J., Veloski, J. J., & Gonnella, J. S. (2003). An operational measure of physician lifelong learning: Its development, components and preliminary psychometric data. *Medical Teacher, 25*(4), 433-437.

Hojat, M., Veloski, J., Nasca, T. J., Erdmann, J. B., & Gonnella, J. S. (2006). Assessing physicians' orientation toward lifelong learning. *Journal of General Internal Medicine, 21*, 931-936.

Jarvis, P. (2007). *Globalisation, lifelong learning and the learning society: Sociological perspectives.* London: Routledge.

Kashdan, T. B., Rose, P., & Fincham, F. D. (2004). Curiosity and exploration: Facilitating positive subjective experiences and personal growth opportunities. *Journal of Personality Assessment, 82*(3), 291-305.

Kashdan, T. B., Stiksma, M. C., Disabato, D. J., McKnight P. E., Bekier, J., Kaji J., & Lazarus, R. (2018). The five-dimensional curiosity scale: Capturing the bandwidth of curiosity and identifying four unique subgroups of curious people. *Journal of Research in Personality, 73*, 130-149.

Kirby, J. R., Knapper, C. K., Evans, C. J., Carty, A. E., & Gadula, C. (2003). Approaches to learning at work and workplace climate. *International Journal of Training and Development, 7*(1), 31-52.

Kirby, J. R., Knapper, C., Lamon, P., & Egnatoff, W. J. (2010). Development of a scale to measure lifelong learning. *International Journal of Lifelong Education, 29*(3), 291-302.

Knapper, C. K., & Cropley, A. J. (2000). *Lifelong learning in higher education (3rd ed.).* London: Kogan Page Limited.

Litman, J. A. (2008). Interest and deprivation factors of epistemic curiosity. *Personality and Individual Differences, 44*(7), 1585-1595.

Martin, A., & Hughes, H. (2009). *How to make the most of work integrated learning: A guide for students, lecturers & supervisors.* Palmerston North, NZ: Massey University Press.

Martin, A. J., & Marsh, H. W. (2006). Academic resilience and its psychological and educational correlates: A construct validity approach. *Psychology in the Schools, 43*(3), 267-281.

Mezirow, J. (1991). *Transformative dimensions of adult learning.* San Francisco, CA: Jossey-Bass.

O'Connell, T. S., & Dyment, J. E. (2011). The case of reflective journals: Is the jury still out? *Reflective Practice: International and Multidisciplinary Perspectives, 12*(1), 47-59.

Sattler, P., & Peters, J. (2013). *Work-integrated learning in Ontario's postsecondary sector: The experience of Ontario graduates.* Toronto, ON: Higher Education Quality Council of Ontario.

Wielkiewicz, R. M., & Muewissen, A. S. (2014). A lifelong learning scale for research and evaluation of teaching and curricular effectiveness. *Teaching of Psychology, 41*(3), 220-227.

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Appendix A: Lifelong Learning Rubric

Disposition/ Skill	Level 4	Level 3	Level 2	Level 1
Curiosity	Continually will look beyond established processes/procedures (people, technology, organization)to make sense of, and complete assigned tasks; with intense interest in all aspects of their job and workplace	Frequently will look beyond established processes/procedures (people, technology, organization) to make sense of, and complete assigned tasks; with regular interest in all aspects of their job or workplace	Occasionally will look beyond established processes/procedures (people, technology, organization)to complete assigned tasks; with mild interest in some aspect of their job or workplace	Satisfied with using established processes/procedures (people, technology, organization) to complete assigned tasks; with low interest in any aspect of their job or workplace
Taking Initiative	Identifies an opportunity to improve performance or a process: related to their job or in another area of the organization; and implements a plan of action.	Identifies an opportunity to improve performance or a process: related to their job or in another area of the organization; and looks to their supervisor or peer for direction.	Identifies an opportunity to improve performance or a process: related to their job or in another area of the organization.	Completes assigned work.
Transfer	References existing knowledge, skills and/or values from previous academic, work or life experiences; and applies them in an innovative way to a task in the current work term.	References existing knowledge, skills and/or values from previous academic, work or life experiences; and shows evidence of directly applying them to a task in the current work term.	References existing knowledge, skills and/or values from previous academic, work or life experiences; and attempts to directly apply them to a task in the current work term.	No reference to existing knowledge, skills and/or values from previous academic, work or life experiences.
Resilience	Bounces back from a stressful workplace experience/adverse situation; choosing not to be deterred, building confidence for handling similar situations in the future.	Eventually bounces back from a stressful workplace experience/adverse situation; will make an effort to persist or push through in resolving it.	Somewhat bounces back/deals with a stressful workplace experience/adverse situation; makes a minimal effort in dealing with it with no resolve.	Might acknowledge a stressful experience/adverse situation in the workplace but is at a loss for how to deal with it.
Reflection	Reviews their learning on this work term including: referring back to an earlier reflection/benchmarking, how they have progressed on the goals set previously; assessing/benchmarking their current knowledge, skills and/or values; developing specific goals looking ahead; and putting	Reviews their learning on this work term including: referring back to an earlier reflection/benchmarking; assessing/benchmarking their current knowledge, skills and/or values; and developing specific goals looking ahead.	Reviews their learning on this work term including: assessing/benchmarking their current knowledge, skills and/or values.	Somewhat reviews their current learning on this work term with no context in terms of past or future goals for development, or assessment/benchmarking of their current knowledge, skills and/or values.