

EDITORIAL

Bite-Sized Pedagogy in Experiential Learning Cycles and Effectiveness of Top Tips in Higher Education.

AUTHOR:

Claire Parkin

Reader, Kent and Medway Medical School, UK.

E: claire.parkin@kmms.ac.uk

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Abbreviations

None

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E: AJPP@kent.ac.uk

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Bite-Sized learning is a modern approach to education that emphasises short, focused lessons that can be completed quickly and easily. Bite-Sized learning has become a popular strategy for delivering educational content in small, focused chunks. It has been shown to be effective in improving learning outcomes and productivity. This editorial focuses on the effectiveness of Bite-Sized learning and its benefits in relation to Kolb's model of experiential learning and provides rationale for accepting Bite-Sized Pedagogical submissions to AJPP.

Bite-Sized learning is a teaching approach that uses relatively small learning units with short term focused activities. The approach is designed to deliver content in small digestible chunks that are easier to understand and to breakdown complex topics into smaller more manageable pieces that can be learned and retained more easily (Koh, Gottipati and

Shankararaman, 2018). Back in 1956, Miller suggested that humans have limited working memory which consists of only seven chunks of memorable space (e.g., remembering 7 digits).

Cognitive Load Theory extends this idea to suggest that working memory is subject to certain types of load and that overloading working memory impedes learning (Clark *et al.*, 2005). Bite-Sized learning therefore is designed to avoid cognitive overload by delivering material in short focus bursts. This type of learning is particularly suited to health professions education, including professional development and interprofessional education, because it can help a student contend with copious and complex content (Manning *et al.*, 2021).

To further consider the benefits of offering Bite-Sized Pedagogical papers within this journal, is to consider how Bite-Sized learning might *fit* Kolb's model of experiential learning (1984). Kolb's model is based on a four-stage cycle of learning which includes concrete experience, reflective observation, abstract conceptualisation and active experimentation. According to Kolb, learning occurs when individuals engage in this cycle, moving through each stage in turn (Kolb, 1984).

There is no clear evidence as to whether Bite-Sized learning fits with

Kolb's model, however, Bite-Sized learning is a useful tool for implementing Kolb's learning cycle in a practical and effective way (NursingAnswers, 2018). Therefore, Bite-Sized Pedagogy papers submitted to AJPP should be aligned with Kolb's model and designed to fit into each of its stages, providing readers with small, meaningful pieces of information that they can reflect on, conceptualise and experiment with. Authors should emphasise the importance of a concrete experience and make reflective observations on that experience. They should then, by abstract conceptualisation, use that reflective experience to develop some *Top Tips* for readers to implement into their study practices. This form of implementation, through active experimentation, will enable learners to apply what they have learnt from the paper, into their real-world situation.

Top tips are often given to students to help them learn and improve their academic performance; however, the effectiveness of top tips is subject to debate. It is important to note that top tips can be helpful if they are based on sound educational principles (Anderson and McCormick, 2005), however, tips that may be based on anecdotal or personal experience rather than empirical evidenced based research, may be detrimental to academic performance (Learning Centre, no date). Therefore, authors are advised to develop their Top Tips

from a published evidence-base where possible.

Overall whilst Top Tips can be helpful for students if they are based on sound educational principles and tailored to individual differences, they are not a panacea for academic success.

Students also need to be motivated, engaged and committed to their learning in order to achieve their academic goals. Implementing them into regular study can help students study more efficiently (Edwards *et al*, 2014; McGuire and McGuire, 2016).

Authors are hereby invited to develop and submit Bite-Sized Pedagogy learning units to AJPP, in order to deliver educational content in digestible units, with evidence-based Top Tips suitable for integration into educational practices.

References

- Anderson, J. and McCormick, R. (2005) 'Ten pedagogic principles for e-learning', *Oinsight*, no volume (no issue), pp. 1 – 4.
- Clark, R. C., Nguyen, F. and Sweller, J. (2005) *Efficiency in learning: Evidence based guidelines to manage cognitive load*. SF: Pfeiffer.
- Edwards, A. J., Weinstein, C. E., Goetz, E. T. and Alexander, P. A. (2014) *Learning and study strategies: Issues in assessment, instruction, and evaluation*. USA: Elsevier.
- Koh, N.S., Gottipati, S. and Shankararaman, V. (eds) (2018) *Effectiveness of Bite-Sized Lecture on Student Learning Outcomes, 4th International Conference on Higher Education Advances*. Valencia: Universitat Politecnica de Valencia. doi: 10.4995/HEAd18.2018.8027
- Kolb, D.A. (1984) *Experiential Learning: Experience as the source of learning and development (Vol 1)*. Englewood Cliffs, NJ: Prentice-Hall.
- Learning Centre. (no date) Studying 101: Study smarter not harder. Available at: <https://learningcenter.unc.edu/tips-and-tools/studying-101-study-smarter-not-harder/> [Accessed 11 May 2023].
- NursingAnswers. (2018) Kolb's Learning Cycle. Available at: <https://nursinganswers.net/reflective-guides/kolbs-learning-cycle.php?vref=1> [Accessed 11 May 2023].
- Manning, K.D., Spicer, J.O., Golub, L., Akbashev, M. and Klein, R. (2021) 'The micro revolution: effect of Bite-Sized Teaching (BST) on learning engagement and learning in postgraduate medical education. *BMC Med Educ*, 21(69), pp. 1-11. doi: 10.1186/s12909-021-02496-z
- McGuire, S.Y. and McGuire, S. (2016) *Teach Students How to Learn: Strategies You Can Incorporate in Any Course to Improve Student Metacognition, Study Skills, and Motivation*. LLC: Stylus Publishing.

Miller, G. A. (1956) 'The magical number seven, plus or minus two: some limits on our capacity for processing information', *Psychological Review*, 63(2), pp. 81-97.