



Book Review: Active Learning Online: Five Principles that Make Online Learning Come Alive

JENNIFER INTELICATO 

BOOK REVIEW



ABSTRACT

Active Learning Online is a guide for online teaching methods built around a framework for practical active learning principles and grounded in the science of learning. Six learning principles are defined, discussed, and demonstrated throughout the book chapters. Processing, chunking, building associations, dual coding, and deliberate practice provide the framework for effective, active online learning activities. Examples of each of the principles are applicable to synchronous and asynchronous courses. Educators and course designers are guided in the direction of more engaging, effective methods of teaching and learning. The reader will finish with an arsenal of active learning tools grounded in the science of learning.

CORRESPONDING AUTHOR: Jennifer Intelicato

Boise State University, United States

jenniferintelicato@u.boisestate.edu

KEYWORDS:

Active learning; synchronous learning; asynchronous learning; online learning; science of learning

TO CITE THIS ARTICLE:

Intelicato, J. (2024). Book Review: Active Learning Online: Five Principles that Make Online Learning Come Alive. *Open Praxis*, 16(4), pp. 731–733. DOI: <https://doi.org/10.55982/openpraxis.16.4.628>

Drawing from psychology and neuroscience, *Active learning online: Five principles that make online courses come alive* (Kosslyn, 2021) is a guide for online teaching methods built around a framework for practical active learning principles grounded in the science of learning. While the title lends the reader to believe the book is written exclusively for online course designers and educators, the information provided within the pages can also be utilized in an in-person setting. Each chapter begins with a discussion of the concepts, followed by active learning activities on each of the five principles. First-hand experience and science-based evidence are followed by examples and suggestions that can be used in synchronous, asynchronous, and in-person classes. The book is a short but concise read overflowing with ways to employ active learning in the online classroom. Readers will walk away with a greater understanding of the application and theory in creating engaging, active learning environments.

STRUCTURE AND CONTENT

The first two chapters focus on the importance of active learning and the science of learning. The book begins with a brief reminder of how online learning was forced into the spotlight in education during COVID-19. While many educators and students were caught off guard by this method of teaching and learning, it is clear that online learning has been and will remain a viable method of education. Active learning is not only a more enjoyable alternative to passive approaches like lectures, but it is also more effective. Kosslyn (2021) provides the reader with functional learning examples such as the “Learning Sandwich” to circumvent passive practices like lectures.

In the book’s Preface, Kosslyn (2021) explains how he used empirical literature to structure the science of learning into sixteen principles, which were then condensed and reorganized into deep processing, chunking, building associations, dual coding, and deliberate practice. He discusses these individual active learning principles and provides examples of using them in the classroom. Deep processing is perhaps the foundation of the science of learning. The more mental processing is performed on a topic, the more likely students will retain the information. Chapter three begins with an engaging pioneer experiment conducted in 1970 that elucidates the cognitive psychology behind the principle of deep processing, followed by an explanation of the principles and practical activities to encourage deep processing in the virtual classroom. Each subsequent chapter follows a similar outline with personal experiences, reflections, and operational active online activities. Kosslyn (2021) walks the reader through the science and application of methods such as organizing information into three or four “chunks” or units, integrating known information into new content to encourage associations, presenting further information in different modalities, and using feedback to provide a student with the means to “update” their knowledge.

Chapter eight opens with an explanation of the “ICAP hypothesis.” This hypothesis suggests students are most engaged when using interactive, constructive, active, and passive activities (ICAP). This chapter discusses the benefits of combining the principles demonstrated using the ICAP framework. Additionally, other combination techniques such as elaboration, generation effect, testing effect, games, and metacognition are explained throughout the chapter.

At the core of all learning, Kosslyn (2021) argues, is student motivation. The science mentioned above, and principles are only possible if a student is engaged. Chapter nine considers intrinsic and extrinsic motivation. The flipped classroom example shows how lacking student interest or participation can render an otherwise valuable method useless. Kosslyn (2021) shows how the Self-Determination Theory (SDT) can be used to develop intrinsic motivation while building incentives and consequences into activities to increase extrinsic motivation in students.

The book closes by providing many specific exercises and active learning formats. Examples of each exercise are modified for synchronous and asynchronous classes. Multiple exercises are given for each activity type: analyzing and evaluating, perspective-taking, explaining, and problem-solving. Individual work, focused discussion, think-pair-share, extended think-pair-share jigsaw, and extended jigsaw and reveal techniques are also formatted for synchronous and asynchronous courses.

OVERALL IMPRESSION AND RELEVANCE TO THE FIELD

Kosslyn (2021) intended to provide a practical guide to developing active learning lessons online. Taking the emphasis off lectures and putting it on active learning activities allows for a more engaging and valuable learning experience for students. The methods outlined in this book are grounded in the science of learning. The book is pragmatic and methodically written, with a conversational tone that is pleasing and easily understood by the reader. The content provides the framework to develop and execute the suggested activities and the theory and research behind each method. Understanding the “why” and the “how” enables the reader to build active learning activities self-reliantly. Kosslyn’s expertise benefits those new to online learning and seasoned online educators alike.

COMPETING INTERESTS

The author has no competing interests to declare.

AUTHOR CONTRIBUTIONS (CRediT)

Jennifer Intelicato: writing—original draft preparation, writing—review and editing; The author has read and agreed to the published version of the manuscript.

AUTHOR AFFILIATIONS

Jennifer Intelicato  orcid.org/0009-0007-0350-3753
Boise State University, United States

REFERENCES

Kosslyn, S. M. (2021). *Active learning online: Five principles that make online courses come alive*. Alinea Knowledge LLC. ISBN 978-1-7358107-0-6.

Intelicato
Open Praxis
DOI: 10.55982/
openpraxis.16.4.628

733

TO CITE THIS ARTICLE:

Intelicato, J. (2024). Book Review: Active Learning Online: Five Principles that Make Online Learning Come Alive. *Open Praxis*, 16(4), pp. 731–733. DOI: <https://doi.org/10.55982/openpraxis.16.4.628>

Submitted: 11 December 2023

Accepted: 23 June 2024

Published: 29 November 2024

COPYRIGHT:

© 2024 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See <http://creativecommons.org/licenses/by/4.0/>.

Open Praxis is a peer-reviewed open access journal published by International Council for Open and Distance Education.