

Editor: Soni Ariawan

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E-LEARNING

online education



Nano Learning in Education

Concept and Best Practice

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Nano Learning in Education: Concept and Best Practice

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Editor : Soni Ariawan.

ISBN: 978-634-7062-65-9

Penyunting dan Penata Letak:

Tim PT Penamuda Media

Desain Sampul:

Tim PT Penamuda Media

Penerbit:

PT Penamuda Media

Redaksi:

Casa Sidoarum RT03 Ngentak, Sidoarum Godean Sleman

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Cetakan Pertama, Februari 2025

X + 234 halaman; 15 x 23 cm

Hak cipta dilindungi undang-undang

Dilarang memperbanyak maupun mengedarkan buku dalam bentuk dan
dengan cara apapun tanpa izin tertulis dari penerbit maupun penulis

Preface

First and foremost, I would like to congratulate all authors who have successfully presented this book which explores a pivotal term, Nano Learning. Nano learning represents a pivotal shift in how we approach education especially when it closely deals with the advancement of technology. In today's fast-paced world, where time is scarce and attention spans are fragmented, the ability to distill complex ideas into concise, digestible modules is not just innovative, it's essential. The authors grab attention to respond the learning preferences from learners that fits their characters. The authors of this book have done a remarkable job of bringing clarity and depth to this emerging field. Their dedication to exploring the nuances of nano learning, from its theoretical underpinnings to its practical applications, ensures that readers will leave with both understanding and inspiration. This is not merely a book to read, it is a resource to engage with, reflect upon, and apply in every pedagogical and learning setting.

I encourage every reader to approach this book with curiosity and an open mind. It is relevant not only for educators and learners, but those who are passionate about looking at a change and a shift in the education context. Allow yourself to experience the potential of nano learning, not just as a

concept, but as a practice that can enhance your personal and professional growth.

Finally, this book is just a starter or might be a continuation of previous work. However, discussion on another type or technique in learning might occur shortly due to the rapid exchange of information and technology. Researchers, educators, and learners are suggested to follow along with the change as well as adapt to its contexts.

Mataram, January 24, 2025

Soni Ariawan

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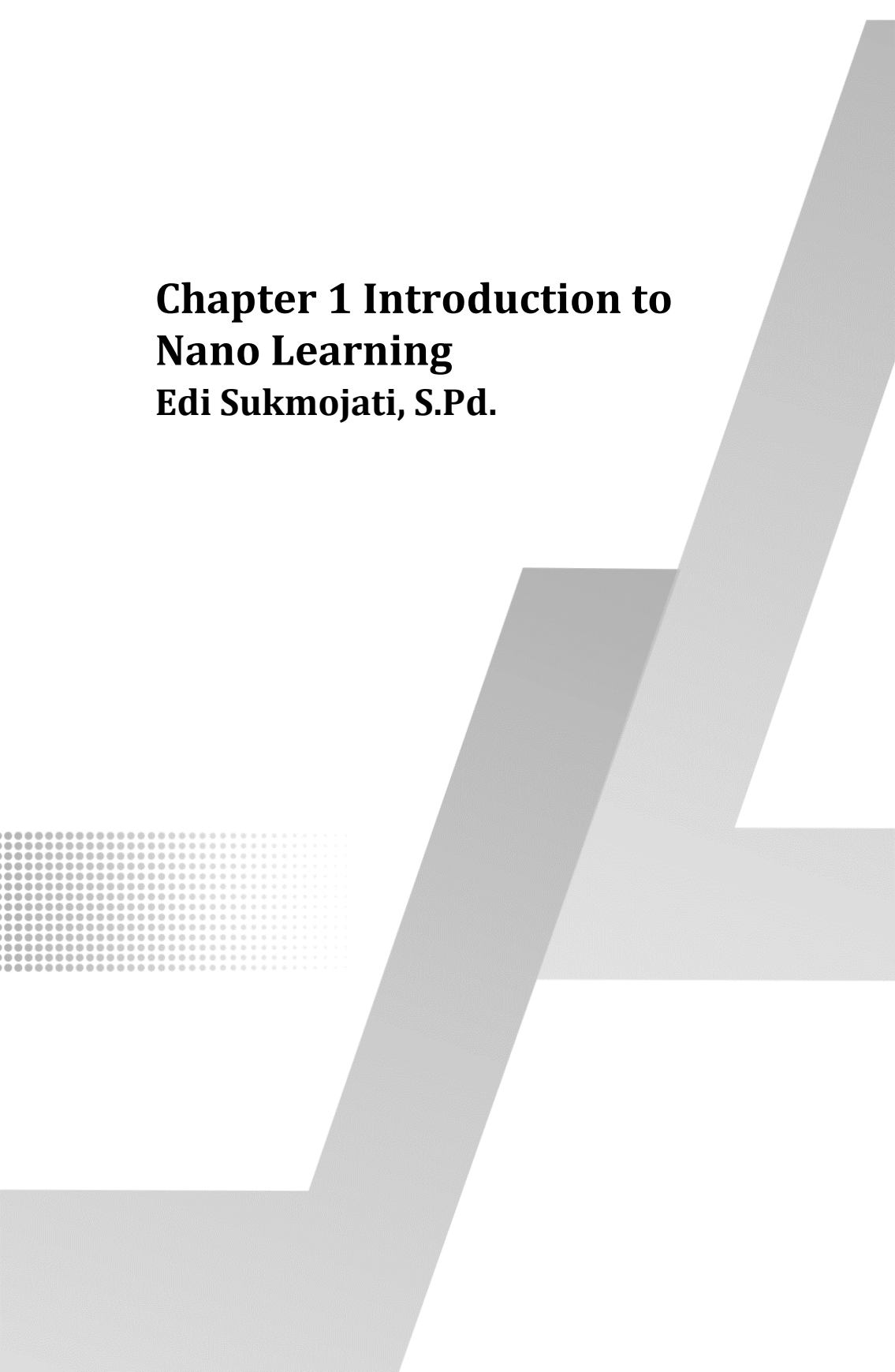
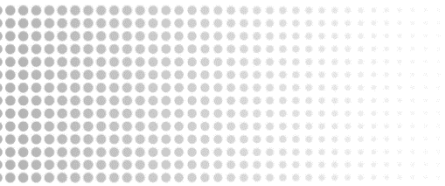
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Chapter 1 Introduction to Nano Learning

Edi Sukmojati, S.Pd.



Nano learning represents a transformative shift in educational methodologies, characterized by its delivery of concise, targeted learning segments aimed at addressing specific educational needs. Defined as an instructional approach that delivers micro-content in short, digestible formats—typically two to ten minutes—nano learning aligns seamlessly with contemporary digital habits and the cognitive preferences of modern learners (Epling, 2020). With the increasing prevalence of digital media and the evolving demands of global education, nano learning has emerged as a promising solution for fostering accessible and personalized education in diverse contexts.

At its core, nano learning is a method of instruction designed to optimize retention and engagement by presenting information in small, manageable portions. The brevity of nano learning modules is particularly suited to the digital age, where the average human attention span has reportedly decreased to approximately eight seconds. Unlike traditional, long-form instructional strategies, nano learning emphasizes specificity, delivering content that focuses on a single, clearly defined objective. By doing so, it aligns with cognitive load theory, which posits that breaking down information into smaller units reduces mental strain and facilitates better understanding (Sweller, 1988).

The modular nature of nano learning also allows for a high degree of personalization. Learners can engage with content that is tailored to their individual needs, enabling them to address specific knowledge gaps or acquire targeted skills. This adaptability is particularly beneficial in professional and corporate environments,

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Nano-learning is an essential term for educators and learners to understand the learning characteristics of today's rapid information and communication technology change. It is just like a shifting paradigm for teachers to deeply know students' learning styles and preferences in the current context and for learners to see an alternative way of learning to strengthen their knowledge. This book is fundamental as the introduction to Nano Learning, and it details the significant benefits of Nano Learning, particularly its ability to engage youngsters or digital natives who are passionate about interactive content, short display of knowledge and science, as well as attractive audio-visual resources. Moreover, this is about flexibility that accommodates diverse learning styles, making it a versatile tool in educational and professional contexts.

In corporate and professional training, Nano Learning is an effective tool for compliance, skill development, and workplace training. By delivering goal-oriented, succinct modules, organizations can foster continuous professional growth. Additionally, its role in online education is explored, emphasizing course design best practices such as structuring content effectively, utilizing multimedia, and maintaining learner engagement. The book also discusses methods to measure success in digital learning environments.

While Nano Learning offers numerous benefits, the book addresses challenges such as resistance to shorter learning methods and concerns about content depth. Strategies for ensuring quality and overcoming these hurdles are proposed, emphasizing the importance of maintaining educational standards while delivering concise lessons. Finally, the book includes chapters on assessment and feedback, offering insights into micro-assessments and their role in evaluating learning outcomes. Real-world case studies demonstrate successful implementations in teaching, EdTech startups, and developing countries, showcasing the versatility of Nano Learning. The concluding chapters explore future trends, including AI integration and the expansion of Nano Learning into non-traditional fields. Recommendations for educators and institutions provide strategic approaches to adopt this methodology effectively.

It is a valuable resource for educators, institutions, and professionals seeking to harness the potential of Nano Learning in a rapidly evolving educational landscape.



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