

ENGAGE

Learning Design™ Position Paper



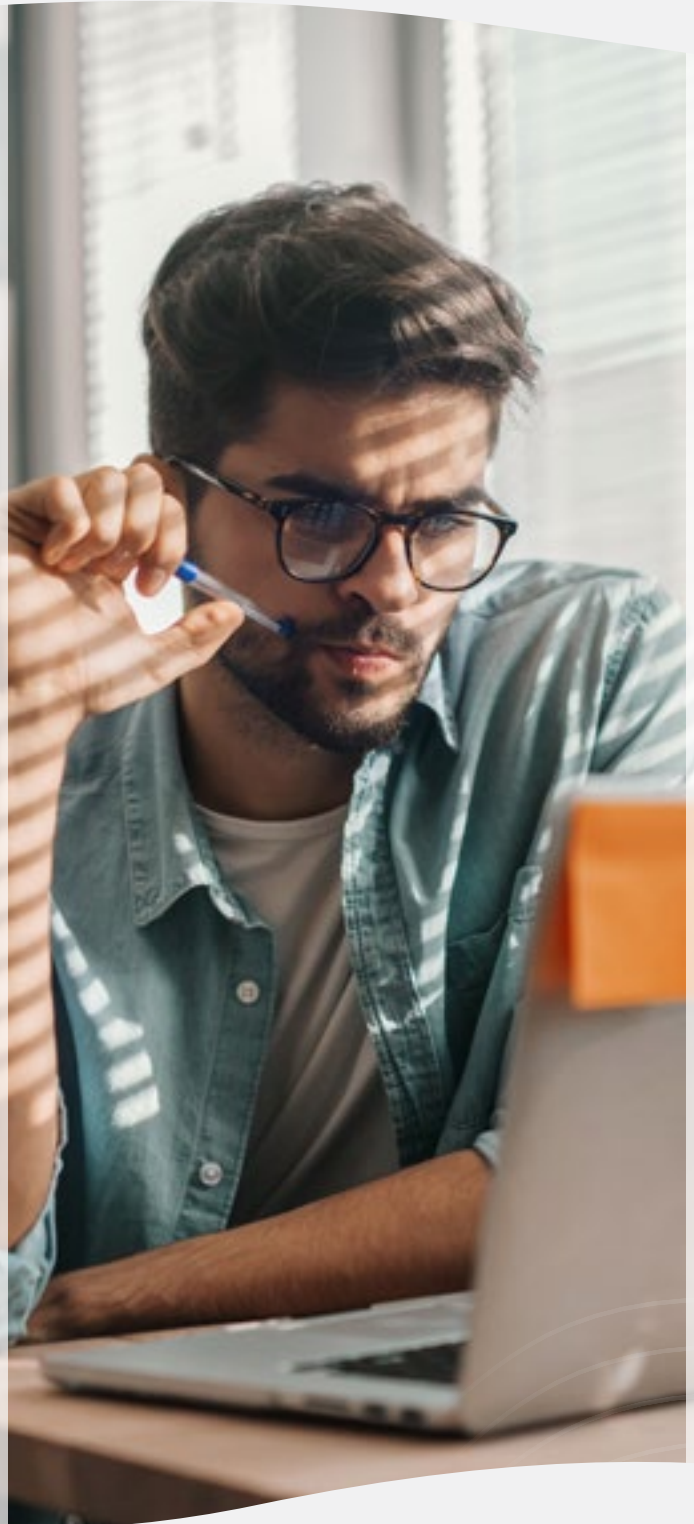
Introduction

In an educational landscape full of distractions and the constant pull of digital notifications, the need for an effective learning design to capture student's attention has never been greater.

LearningMate's ENGAGE Learning Design emerges as the north star of innovation and excellence in this context, offering a comprehensive solution to the challenges faced by educators and learners alike.

LearningMate has been developing learning experiences for over 20 years and has used this knowledge to establish the ENGAGE Learning Design framework. It incorporates the best advancements in design thinking while pushing the envelope to improve the student experience and, ultimately, student outcomes. When combined with the potential of AI, it becomes an exponentially powerful tool, not just for creating superior learning but also for teaching and learning wraparound support.

The framework is a guiding philosophy for all our learning experience design, providing a structured approach to designing, implementing, and evaluating online and hybrid courses. It ensures that every course we develop delivers an exceptional, effective learning experience.



How is ENGAGE Learning Design different from other learning design frameworks?

ENGAGE Learning Design distinguishes itself from other learning design frameworks through its intelligent integration of artificial intelligence and its focus on pushing the boundaries of learning design.

Artificial Intelligence (AI) allows a level of personalized engagement that has never been so readily available. It is changing the experience of consumer applications dramatically and, in doing so, is raising the bar for educational experiences. At LearningMate, we have embraced this shift. We understand that LLM-driven interactivity, the immediacy of experience, and the personalization of learning are foundational to engaging learners and challenging them appropriately. We bring a learning design and cognitive science approach to the development of learning experiences that fully embrace these expectations of modern learners.

Unlike traditional frameworks, ENGAGE Learning Design combines AI-driven tools with a comprehensive approach to learning that emphasizes growth, mastery, global perspective, captivating educational experiences, and support for faculty and students.

This framework not only supports personalized learning and real-world application but also ensures courses are accessible, engaging, and designed to meet the diverse needs of today's learners. By blending AI technology with deep learning science research, ENGAGE Learning Design offers a forward-thinking solution that enhances educational outcomes and prepares learners for a future where technology and education are deeply intertwined.

ENGAGE Learning Design



Elevate your learning so that you can thrive in school, work and life.



Navigate instructionally sound and well-designed learning environments.



Practice and acquire skills through impactful assessment opportunities to **grow** and verify your new knowledge.



Feel at home in a learning experience created by people who **advocate** for inclusivity, accessibility, and diversity.



Connect with **global** perspectives and engage with your local community.



Engage in well-crafted and creative learning experiences that surprise and **enchant** you.

ENGAGE Learning Design balances what we consider the most essential learning design elements, rooted in our deep research in learning science and infused with AI. The framework is an acronym built on six pillars, each representing a fundamental aspect of learner-centered course design: Elevate, Navigate, Grow, Advocate, Global, and Enchant.





Elevate

Empower Students to Become Expert Learners

Learning experiences should be designed to help learners elevate themselves to become expert learners so they can thrive in any environment, whether work, school, or life in general.

Workplace and Real-World Relevance

When we incorporate workplace and real-world relevance, we align with the constructivist approach to learning, emphasizing authentic learning experiences that improve communication, teamwork, critical thinking, self-responsibility, and other essential skills.¹ Workplace and real-world relevance in learning design can significantly help learners by increasing engagement, enhancing learning retention, improving transfer of learning, developing practical skills, and preparing them for career success.

As educators, this is paramount in learning design. When we align teaching practices with educational goals, our learners connect new information to existing knowledge. This connection is vital, making the subject easier to understand and remember. When we connect real-world relevance to the curriculum, we help learners develop practical skills they can use in their careers and beyond.

Metacognition

The cognitivist approach focuses on learners' internal mental processes. This includes encouraging thinking, problem-solving, language development, conceptual formation,

and information processing.² In education, metacognition is a critical component of successful learning. Students who engage in metacognitive processes can better plan, monitor, and evaluate their learning, leading to improved academic performance.

Additionally, these are learning skills they can carry with them throughout their lives. A learning design approach that emphasizes metacognition is a key component in how lifelong learners are made.

Technology

As educators, it is imperative that we create innovative learning experiences that take advantage of the best and latest technologies, including rapid development authoring tools, learning platforms, immersive learning, and AI. The use of technology can significantly enhance the effectiveness and engagement of learners. The “connectivist” approach that ENGAGE Learning Design adopts relies heavily on the role of technology.

These trends include social media networks such as X, YouTube, and online libraries. Learners exploring and sifting through new information show higher-order thinking.³ We adopt an agile approach, adapting to new technologies like artificial intelligence and virtual reality.



Learning Design Strategies



The Real World

For practice activities, have the students practice skills they will use in their careers and create deliverables they will need to know how to make to succeed in their jobs.



Authentic Assessments

Instead of multiple-choice exams, have the students complete authentic summative assessments in which they are placed in a real-world scenario and asked to solve a problem that simulates what they will do on the job. Use a rigorous rubric to guide students and help with evaluation.



Pre-Assessments and Post-Assessments

Create pre-assessments and post-assessments that help students gauge their own knowledge and skills, which guides students to think about the progress they are making. These often come standard with adaptive tools.



Metacognition Call-Outs

When a particular learning activity is hard, create a callout that tells students why it might be challenging and how that will benefit them.



AI Opportunities



Integrate AI Into the Curriculum

Give students valuable experience by weaving AI tools into the classroom and letting students gain hands-on experience with those AI tools. This will help them prepare for their careers where AI is becoming increasingly important.



Data Analysis

AI is a great tool for analyzing data and providing recommendations. Give students an opportunity to learn this for themselves by adding AI tools to the classroom to analyze and interpret data for assignments and assessments. These skills are in high demand in data science and business analytics fields.



Immersive Learning

As AI improves, it has the potential to change the way we use virtual reality (VR) and augmented reality (AR) in the classroom. If AI can be harnessed by VR and AR, it could create highly immersive learning experiences that simulate the real world and ask students to make real-world decisions.



Navigate

Create Seamless and Intuitive Experiences

We understand the importance of seamless navigation in enhancing the learning experience. When courses are not only instructionally sound but also beautifully designed, learners are more engaged.

With ENGAGE Learning Design, we prioritize backward design and UX and navigation, understanding that even the best content needs to be delivered with the highest quality.

Clear and Measurable Learning Outcomes

With ENGAGE Learning Design, student learning experiences are designed with clear and measurable learning outcomes aligned to assessments, assignments, and learning materials.

Clean and Intuitive Design

Clean, easy-to-use, and intuitively designed learning experiences matter in education more than ever. Learners compare their digital experiences with the best products and companies in existence, not just other learning institutions. Our design approach incorporates the Laws of UX⁴, a series of best practice design principles to optimize learning.

This attention to detail on clean design ensures that student learning is accessible, flexible, and memorable.

Concinnity

Learning design concinnity blends a harmonious integration of elements when designing experiences, creating a cohesive and balanced learning environment. ENGAGE Learning Design implements a learning design process that

ensures all elements work together seamlessly and delivers coherent learning experiences that help learners achieve their goals.

Design Consistency

When it comes to course design and learning, consistency is key. We design the look and feel of a course the same way for each course so that students and instructors only need to learn how to navigate the course once. Our courses are designed according to best practices and industry standards, with the student at the center of the design.

Backward Design

Using backward design ensures that instructional designers focus on the course learning outcomes, which are student learning and understanding. Backward design allows instructors to intentionally consider each activity, resulting in purposeful, intentional, and focused courses.⁵ Our learning design approach starts with measurable, action-oriented learning objectives and then defines assessments, assignments, practice activities, and learning materials.



Learning Design Strategies



Learning Outcomes

Write clear learning objectives that are driven by what the students will need to do in their lives and careers.



Align Learning Outcomes Throughout

Make sure all assessments, assignments, and learning materials are aligned to learning outcomes. This is the only way to demonstrate that students have learned what you want them to learn, and it prepares the course for learner analytics.



Workforce Skills

Align all learning outcomes with workforce skills, which can then be aligned to real-world job competencies and descriptions.



Consistent Look and Feel

Build courses so that they have a consistent look and feel so that students only need to learn how to navigate the course once. This is especially important for courses within the same program.



Design Matters

Good design is not the frosting on the cake; it starts with the ingredients and provides the foundation for everything that comes after. Today's learners expect consumer-grade learning experiences, not just a clean, consistent look and feel and intuitive navigation but aesthetic appeal. Use engaging photos, graphics, icons, and navigational tools to make your course more visually inviting.



AI Opportunities



Learning Outcomes

Use AI to brainstorm and generate learning outcomes. Go further and use AI to evaluate your learning outcomes, suggest new Bloom's verbs, or propose new learning outcomes to better engage your students.



Images

Use AI to brainstorm ideas for images for use in your course or multimedia. Go further and use AI to generate the images, even creating your own series of images that are custom-created just for your course.



New Ways of Organizing Course Content

How you organize the content in your course affects how your students consume that content. Use AI to generate code snippets to add to your online course and create new and interesting ways for your students to interact with the course content.



Grow

Support Knowledge and Skill Acquisition, Practice, and Mastery

With ENGAGE, we emphasize growth to ensure learners achieve meaningful learning outcomes and tangible results.

Through carefully curated learning design experiences, we give learners opportunities to engage actively with course material, apply learning in real-world contexts, and track their progress over time.

Frequent and Effective Feedback

We should be designing learning experiences that provide frequent opportunities for students to receive effective formative and summative feedback. With ENGAGE, we make sure courses provide opportunities for effective formative and summative feedback so every learner's performance is optimal.

Deliberate Practice

Learning experiences should be designed to provide students with carefully planned practice activities to apply their knowledge and skills in context. These no-stake or low-stakes formative assessments are the key to helping students improve their skills so that they are ready for whatever life throws at them.

Authentic Learning

The best learning experiences strive for authenticity. We design ours with authentic assessments, assignments, practice activities, and learning materials that feature real-world scenarios and deliverables. The constructivist approach helps learners enhance their higher-order thinking skills, their ability to research complex topics, reflect on them, collaborate with peers, and present their findings.⁶ Case-based

learning involves the simulation of real-world activities and situations. Case-based learning allows learners to more clearly understand the implications of their decision-making.

Focus on Mastery

With ENGAGE, a student's learning experience will be scaffolded to help build knowledge and skills as they work toward mastery. Our courses are designed to ensure that the learner is in their Zone of Proximal Development (ZPD), the area of optimal learning. Scaffolding ensures that the learners have all the necessary support, tools, and guidance such that their foundational skills are developed prior to progressing to more complex skills.⁷

Rubrics

Learning experiences will be designed with rubrics so that students always know what's expected of them on each assignment and assessment. Assessment is a critical aspect of the teaching and learning process. Feedback is necessary for learners to perform above the average performance.⁸ Rubrics have been found to be effective assessment tools in online learning courses and are essential for learners to meet their learning objectives.⁹





Learning Design Strategies



No-Stakes or Low-Stakes Formative Assessment Feedback

Create no-stakes or low-stakes formative assessments that give students lots of opportunities for active exploration and feedback without adversely affecting their grade.



Deliberate Practice

Create practice activities that incorporate interactive simulations, case studies, role-playing exercises, problem-solving tasks, and hands-on projects that mirror real-world scenarios and challenges.



Authentic Learning

Create assignments in which students are situated in real-world scenarios, use real-world tools, and submit real-world deliverables.



Scaffolding

Make sure learning experiences build on each other as students progress from foundational knowledge to mastery of complex skills and competencies.



Rubrics

Develop clear and detailed rubrics that outline performance expectations, criteria for evaluation, and levels of proficiency for each assignment and assessment.



AI Opportunities



Tutoring Chatbot

AI tutoring chatbots provide round-the-clock personalized support, offering explanations, practice exercises, and immediate feedback on performance. These chatbots adapt to each learner's pace, focusing on areas needing improvement, and thus significantly enhancing learning outcomes by providing a tailored tutoring experience akin to personal coaching.



Research Chatbot

The research assistant chatbot is an AI tool designed to aid students in their research efforts. By guiding learners through the vast expanse of available information, suggesting relevant articles, and helping to refine research questions, this chatbot makes the research process more efficient and effective, encouraging deeper engagement with the subject matter.



Writing Assistant Chatbots and Tools

AI writing assistants help improve writing skills by offering suggestions on grammar, style, and coherence, making the writing process smoother and educational. These tools also provide feedback that learners can immediately apply, fostering iterative learning and enhancing writing proficiency over time.



Grading

For educators, we create learning experiences that utilize AI systems to immediately grade assignments and exams, which is particularly useful in large-scale, high-enrollment courses. AI grading reduces the risk of human error and ensures that grading standards are consistently

applied to all students. AI-assisted grades on assignments and exams allow learners to understand their performance and areas for improvement in real-time. This can help students learn more effectively and make timely adjustments to their study habits. AI-assisted feedback can also be used to guide students in their writing and open-response efforts prior to summative assessment.



Predictive Analysis

AI-driven learning experiences have the potential to help predict future student outcomes and performance, which helps inform instructional decisions and, in some cases, interventions. AI has the potential to identify specific areas where students may need additional help or practice. Uncovering targeted support areas can

help students improve their understanding and mastery of complex concepts. Over time, AI's ability to provide feedback and track student progress allows students to see their growth and improvement.



Adaptive Learning

AI has the potential to analyze student learning habits, performance, and preferences to tailor learning materials and activities to individual needs. AI can be leveraged to analyze data to identify patterns and trends. Based on this analysis, AI can then personalize the learning experience for each student. As the student progresses, AI can be deployed to adjust the difficulty level of the materials, providing additional support or challenges as needed.





Advocate

Prioritize Learners' Needs

ENGAGE Learning Design prioritizes learner satisfaction and success and recognizes learners' diverse needs. As a partner in the design process, we advocate for learners and educators by ensuring courses are tailored to individual preferences and goals.

Students learn better when they feel supported and feel free to take ownership of their learning journey.

Universal Design for Learning

Your learning experience will be designed to incorporate the Universal Design for Learning principles, which emphasizes providing learners with multiple opportunities for acquiring information (representation), demonstrating knowledge (expression), and engaging with course content (engagement), thus fostering inclusive and effective learning experiences for all students.

Every Learner Counts

We believe every learner matters. As such, our learning experiences are designed to include everyone. When a learner's lived experience is reflected in the curriculum they are studying, engagement soars. We ensure every learning experience has a specific audience in mind, and we tailor the course accordingly. Within a connectivist approach, past experiences and existing knowledge base matter, and our courses are designed to build on that.

DEI

Every learning experience with ENGAGE Learning Design is designed to incorporate the principles of diversity, equity, and inclusion. Inclusive pedagogy, a core tenet of ours, results in improved student outcomes.¹⁰ The pedagogical approach aims to create a learning experience available to all learners. Studies have shown that an inclusive pedagogical approach results in an increased sense of belonging, which is crucial for the learner's success.¹¹

Accessibility

Learning experiences should be designed to pass a defined level of accessibility, which is most often defined by the institution. To that end, we incorporate the Web Content Accessibility Guidelines (WCAG) in the design and creation of courses, ensuring high levels of accessibility.



Learning Design Strategies



AI Opportunities

- ✓ **Multiple Means of Expression**
Give students options for expressing their ideas and demonstrating their mastery of course content through multiple means of expression, including videos, LinkedIn articles, infographics, slide decks, and other real-world deliverables.
- ✓ **Multiple Means of Engagement**
Offer diverse and inclusive learning activities that cater to different interests, cultural backgrounds, and abilities. Provide options for student choice and autonomy to increase engagement and motivation.
- ✓ **Plain Language**
Use plain language to improve comprehension and enhance accessibility for students with learning differences or limited English proficiency.
- ✓ **Diverse Representation**
Include diverse perspectives, voices, and experiences in course materials, readings, and examples. Incorporate content that reflects the diversity of identities, cultures, and backgrounds represented within your student population.
- ✓ **Go Beyond WCAG 2.1 Level AA**
Focus on creative long descriptions, captions in multiple languages, interactive transcripts, and more to go beyond what's expected.
- ✓ **Universal Design for Learning**
Use AI to embrace UDL principles and generate activities that incorporate a plethora of interests, cultural backgrounds, and more so that more students see themselves in the courses.
- ✓ **Empathy Chatbot**
Much like virtual reality can be used to generate empathy by putting yourself in someone else's shoes, use an AI chatbot to hold a conversation with different characters to foster empathy.
- ✓ **DEI**
Use AI to brainstorm real-world scenarios from different perspectives and cultures to celebrate a multitude of ideas and vantage points.
- ✓ **Accessibility**
Use AI to generate captions in multiple languages and use AI to generate artfully crafted long descriptions and alt text. There are a myriad of ways that AI can help craft better experiences for those students that need it.



Global

Foster Global Perspectives and Unique Communities

As a global company, we understand the power of thinking globally. It is in our DNA. We believe incorporating a world perspective is essential for fostering understanding, empathy, and collaboration in an increasingly interconnected world.

Our courses are designed with a global mindset, incorporating the best practices, insights, and resources from around the world. All of this leads to the creation of a unique community within the classroom. By fostering these diverse and inclusive learning communities, we create a rich tapestry of perspectives that enrich the learning experience for all.

Global Perspective

As educators, we must ensure every learning experience is designed with a global perspective that takes into account a diversity of ideas and vantage points. This is how we shape the leaders of tomorrow to attack our largest societal challenges.

Community of Inquiry

Learning experiences should be designed to take advantage of the principles of the Community of Inquiry model¹², which focuses on the intersection of cognitive presence, teaching

presence, and social presence. Through these three foundational elements, students and instructors have the potential to create deep and meaningful connections.

Plain Language

Create learning experiences that use plain language, which means that instructional material will be clear, precise, and succinct. Plain language simplifies mechanics and vocabulary so that learners of all ages, abilities, and educational, cultural, and socioeconomic backgrounds can easily understand what they are reading.¹³



Learning Design Strategies



Different Perspectives

Create real-world scenarios from different perspectives. Instead of one scenario, use the same situation but present it from different vantage points or with different people.



Service Learning Projects

Ask students to complete service learning projects and gain practical experience applying course concepts and skills to address real-world challenges in their local community.



Collaborative Project

Assign collaborative projects or group assignments that require students to work together to achieve common goals. Provide guidelines and tools for effective collaboration, such as project management tools, templates, and collaboration platforms.



Peer Feedback and Review Activities

Incorporate peer feedback and review activities where students can provide constructive feedback on each other's work. Encourage students to offer specific suggestions for improvement and highlight strengths, fostering a culture of mutual support and continuous learning.



Online Events and Activities

Organize guest lectures, virtual field trips, academic competitions, or social gatherings that allow students to interact with each other outside of the regular course content.



AI Opportunities



Conversation Chatbot

Conversation chatbots simulate real-world interactions, allowing students to engage in dialogues on a wide array of topics. These AI-powered chatbots are designed to understand and respond to student queries in natural language, making learning more interactive and personalized. They can be used for language practice, role-playing scenarios in professional contexts, or exploring complex subject matter through guided conversation. This innovative tool not only enhances language skills and subject matter understanding but also fosters soft skills like communication and empathy, which are essential in a global world.



Plain Language

Plain language is essential for understanding. Use AI to review and edit instructional material for plain language and improve comprehension.



Global Perspective

Use AI to review and edit instructional material to incorporate various global perspectives to help foster understanding, empathy, and collaboration.



Enchant

Deliver Captivating Learning Experiences

At the heart of ENGAGE Learning Design lies a commitment to delivering the best possible learning experience. If a course doesn't grab a student's interest, it has little chance of changing them and increasing their knowledge.

With ENGAGE Learning Design, our courses are designed to enchant learners, captivating their interest, inspiring their curiosity, and fostering a sense of wonder and discovery. Through engaging multimedia, interactive activities, and unique instructional strategies, we are constantly exploring and implementing different strategies to create transformative learning experiences for students and educators.

Media that Delights

Learning experiences should be designed with a variety of creative media items to better engage learners. Whether it's animated explainer videos or scenario-based interactives, students love media, so whenever possible, learning experiences should include a plethora of robust and creative media solutions.

Storytelling

Learning experiences should be designed to incorporate elements of good storytelling, from suspense to humor to unexpected twists.

Stories and examples help learners solidify their learnings especially around complex information.¹² Additionally, stories assist in transforming abstract content into more concrete and digestible learnings. As students observe a variety of examples and applications of concepts, they are able to understand and explain the concept with more confidence.¹⁵

Unique and Creative Instructional Techniques

With ENGAGE Learning Design, learning experiences are designed with unique and creative instructional techniques to better engage learners. At LearningMate, instructional designers and media experts are constantly exploring new techniques. Within course development, these instructional designers and media experts partner with instructors to create the best possible learning solutions to engage students.

Active Learning

Passive learning experiences can be boring. Learning experiences should be designed to be active. This ensures that students are active in the learning process when it comes to decision-making, problem-solving, discussions, and expressions of their ideas, either through text or verbally. Our courses are designed with a variety of active components, such as discussion forums, interactive activities, and self-reflection.¹⁶



Learning Design Strategies



Cognitive Primers

Replace staid introductions with cognitive primers by starting each week with a brief anecdote or question that activates students' prior knowledge or introduces key concepts. This primes their cognitive processes and prepares them for learning.



In-Video Questions

Solve for Bloom's 2-Sigma Problem by embedding questions within instructional videos to encourage active engagement and reflection. These questions can pause the video and prompt students to think critically about the content before proceeding, acting like a one-on-one tutoring session.



Learning Slingshots

Propel students forward by providing short, focused, real-world scenarios or problem-solving exercises directly after reading textbook chapters or articles or watching videos. This allows students to make connections between theory and practice, reinforcing their understanding and retention of the material.



The Power of Storytelling

Use narrative techniques, including humor, mystery, and conflict, to connect with students on an emotional level, making learning more relatable and meaningful.



Media That Delights

In a world filled with TikTok videos and Instagram stories, use media to meet the students where they are to engage them in memorable ways. Use animations to explain difficult concepts. Use talking head videos and screencasts to provide better directions to students. Use interactives to help students practice applying knowledge in a low-stakes environment.



AI Opportunities



Media Creation Chatbots and Tools

AI tools can rapidly generate animations and videos in a fraction of the time it takes to create them today. Use media to simplify complex concepts or to provide additional context that was missing from the textbook.



Personalized Conversation Chatbot

Conversation chatbots offer learners interactive dialogue experiences, perfect for practicing languages, soft skills, or exploring new topics. These AI-powered chats simulate real conversations, providing a safe space for learners to practice and receive instant feedback. For example, in a history course, talk directly with George Washington, MLK, or Rosa Parks!



Task Chatbot

Task-oriented chatbots assist learners by performing specific educational tasks, such as organizing study materials or generating quizzes. This personalized aid encourages proactive learning and efficient study habits, which are tailored to students' needs.



Gamification

AI has the potential to enhance learning through gamified elements, adjusting challenges to the learner's level for optimal engagement. Dynamic leaderboards, achievements, and role-playing games make education more like play, fostering motivation and applying knowledge in real-world scenarios.

Conclusion

At the heart of **ENGAGE Learning Design** lies a commitment to transforming the learning experience, making it more engaging and effective. Through its six pillars – Elevate, Navigate, Grow, Advocate, Global, and Enchant – ENGAGE Learning Design provides a holistic approach to learning design, leveraging the latest in AI technology and learning science research.

What sets ENGAGE Learning Design apart is its commitment to transcending the boundaries of today's learning experiences and its pioneering integration of potential AI solutions. These AI solutions hold the potential to not only improve learning outcomes but to streamline the course development process, making it more efficient and responsive to the needs of both learners and educators. Furthermore,

ENGAGE Learning Design's emphasis on learner satisfaction, diversity, equity, inclusion, and a global perspective ensures that the learning experience is inclusive, accessible, and relevant to a diverse student population.

As LearningMate introduces ENGAGE Learning Design to the world, we invite higher education, university and academic, and workforce leadership to embrace this revolutionary approach. ENGAGE Learning Design is not just a framework but a promise of a better future for education, where every course is designed to captivate, inspire, and ultimately transform learners. By adopting ENGAGE Learning Design, institutions can not only enhance their educational offerings but also prepare their students for the challenges and opportunities of the 21st century.

GROW BOLDLY



Lead with confidence in the face of technological change.

Footnotes

1. Gazi, Z. A. (2009). Implementing constructivist approach into online course designs in distance education institute at Eastern Mediterranean University. *Turkish Online Journal of Educational Technology*, 8(2), 68-81.
2. Kurt, Dr. S. (2023, October 25). Cognitivism learning theory, strategies and examples. *Educational Technology*. <https://educationaltechnology.net/cognitivism-learning-theory-strategies-and-examples/>
3. Siemens, G. (2008, January 27). Learning and knowing in networks: Changing roles for educators and designers. Article presented to ITFORUM. Retrieved from <http://itforum.coe.uga.edu/Paper105/Siemens.pdf>
4. Yablonski, J. (n.d.). Laws of UX. <https://lawsofux.com/>
5. Bowen, R. S. (2017). Understanding by Design. Vanderbilt University Center for Teaching. Available: <https://cft.vanderbilt.edu/understanding-by-design/> [2024, February 12].
6. Crumley, C., Dietz, P., & D'Angelo, S. (2014). *Pedagogies for Student-Centered Learning: Online and On-Ground*. Fortress Press. <https://doi.org/10.2307/j.ctt9m0skc>
7. Saunders, Laura and Wong, Melissa. (2020) *Instruction in Libraries and Information Centers*.
8. Bloom, B. S. (1984). The 2 Sigma Problem: The Search for Methods of Group Instruction as Effective as One-to-One Tutoring. *Educational Researcher*, 13(6), 4-16. <https://doi.org/10.2307/1175554>
9. Gold, S. (2001). A constructivist approach to online training for online teachers. *Journal of Asynchronous Learning Networks*.
10. Liz, T. (2016). Developing Inclusive Learning to Improve the Engagement, Belonging, Retention, and Success of Students from Diverse Groups. 10.1016/B978-0-08-100213-1.00009-3.
11. Sanger, C. S. 2020. "Inclusive Pedagogy and Universal Design Approaches for Diverse Learning Environments." In *Diversity and Inclusion in Global Higher Education: Lessons from Across Asia*, 31-71. Singapore: Springer, 2020. https://doi.org/10.1007/978-981-15-1628-3_2.
12. The Community of Inquiry. (n.d.). <https://www.thecommunityofinquiry.org/coi>
13. LearningMate. (2020) *In-house plain language guidelines*.
14. Graesser, A. C., Olde, B. & Klettke, B. (2002). How does the mind construct and represent stories? In M. Green, J. Strange & T. Brock (Eds.), *Narrative impact: Social and cognitive foundations* (pp. 229-262). Mahwah, NJ: Lawrence Erlbaum Associates.
15. Goldstone, R. L., & Son, J. Y. (2005). The Transfer of Scientific Principles Using Concrete and Idealized Simulations. *Journal of the Learning Sciences*, 14(1), 69-110. https://doi.org/10.1207/s15327809jls1401_4
16. Crumley, C., Dietz, P., & D'Angelo, S. (2014). *Pedagogies for Student-Centered Learning: Online and On-Ground*. Fortress Press. <https://doi.org/10.2307/j.ctt9m0skc>



LearningMate

A STRAIVE COMPANY



Reach out to us at:

communications@learningmate.com
www.learningmate.com

