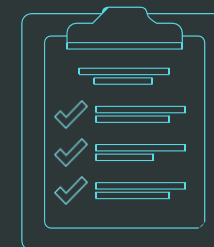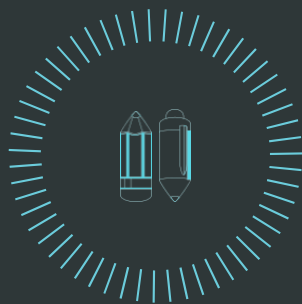# kadenze®

Introducing

Technology Enabled Creative Learning (TECL [SM])

An online learning design for creative classes.

Kadenze, Inc. ("Kadenze") is the global leader for online learning in the creative arts and design and in the use of creative technologies for creative education. With nearly 150 courses and three thousand hours of content the Kadenze approach is known as **Technology Enabled Creative Learning (TECL^SM).**

DESIGNING A COURSE FOR ONLINE USING TECL

You are a content expert. You know there are learners keen to know more about your subject matter and you may even have taught this material in classrooms or online. Committing to design, prepare and deliver your online course for the best student experience is exciting and here at Kadenze we want to help you do this smoothly and efficiently. Our priority is to address the key aspects of course design while not making the process overly or unnecessarily complicated.

TECL AND ONLINE LEARNING DESIGN

From the very beginning, online learning design has principally focused on developing analytical and linear cognitive capabilities. As we are told repeatedly, these capabilities are essential for learners to hold down a successful job and build a powerful economy. Overwhelmingly learning design has engendered the cognitive operations of mind most commonly found in Maths, Chemistry, Language, Engineering and Business education.

This approach is underpinned by cognitive load theory which holds that for online instruction to be effective, care must be taken not to overload the mind's capacity for processing information. Consequently, designers become concerned with extraneous load, working memory, redundancy and concerns about temporal and spatial split attention. All to ensure that students never become cognitively overloaded. **TECL takes an alternative approach**; preferring to draw on arts-led learning theory and how that might lead learning design for virtual spaces.

Online learning shaped by arts-led learning theories

TECL and arts-led learning frameworks encourage learners to stay with all their senses (not only their cognition). These are well established with an unbroken and 200-year line of thought:

- *from Immanuel Kant through to Schopenhauer*

- *Ernst Cassirer to Suzanne Langer*

- *and most recently, Maxine Greene and Elliot Eisner to Ken Robinson and Howard Gardner.*

We acknowledge for instance that many creative arts and design experiences are deliberately designed to stretch the limits of cognition; that not all cognitive overload is necessarily negative. In such cases cognitive overload does not result in a loss of meaning or intelligibility. Indeed, it can be understood as cognition in the making, where the very fabric of cognitive life is renewed as it struggles to make sense of experience. Arts educators see productive possibilities for learning in the overload, not simply as events which inhibit and confuse.

Online learning informed by the experiential

TECL expands the possibilities for online learning design. It is not that other learning design models are incorrect, most are certainly necessary, but alone they are not sufficient. TECL amplifies the experiential and stirs the imagination to engage in challenges of interpretation and judgement where understanding is not simply the mastery of technical skills and factual accuracy. It is a learning design applicable to all disciplines, but spawned by educators from music, dance, drama, film and media, the visual arts, design and the creative application of technology and computing power.

TECHNOLOGY ENABLED CREATIVE LEARNING (TECL)

TECL is an online learning framework built upon relevant educational research, our extensive practice as arts and design educators in face-to-face and online settings, and abiding fundamentals present in all learning. Consequently, the following fundamentals underpin the TECL approach.

Learning is not a 'one size fits all' process

The predominant learning design for online environments addresses content which has clear correct or incorrect answers. Typically, an explanation of a concept or skill is set out and then followed by a quiz which can be definitively marked right or wrong. Learning this kind of content is highly effective online. However, seeking to develop skills and understandings which rely on problem solving and interpreting behavior are poorly served through such a learning design. When students are asked to acquire the skills and understandings to manage the dynamics of a challenging situation, such as seeking behavior change, a far more active learning design is required. We specialize in enabling learners to effectively analyze and interpret procedural knowledge (the type of knowledge exercised in the performance of a task) by implementing the TECL framework.

TECHNOLOGY ENABLED CREATIVE LEARNING (TECL)

Learning is made more powerful through interactivity and engagement

Learners can effectively acquire procedural knowledge in an online environment provided they are able to share and critique their actions and deliberations. In our case we have prioritized and pioneered field-defining forums and galleries (for sharing non-text artefacts such as images and videos) enabling individual and team-based reflection.

As learners acquire skills, knowledge and understandings they need to see their growing mastery; their learning needs to be visible to them

Learning is deepened when students can match clear expectations of performance with their own achievements. Scaffolding and tracking such achievements need to be an organic part of all learning pathways. Case studies and simulations of the 'real world' enable rich application of situated learning.

These fundamentals are made concrete in TECL as instructors take their first steps, mapping out clear intentions.

CLARIFY YOUR GOALS

The first crucial step in designing your course is setting goals for your learners.

Why are they taking your course? What are your participants going to take away from your course?

Perhaps your course is part of a larger award, such as a high school certificate, diploma or degree, which sets learners up for entry into a profession or workplace, or it may be for ongoing professional development or personal interest. Perhaps to gain the skills for something they want to make or do.

Your goals will clarify what kind of activities will be best for your course.

Keeping your learners' needs and aspirations at the center of your course design will ensure that the instructional activities and learning pathways you select are most suited to your learners and for the integrity and coherence of your course structure.

DESIGN YOUR COURSE
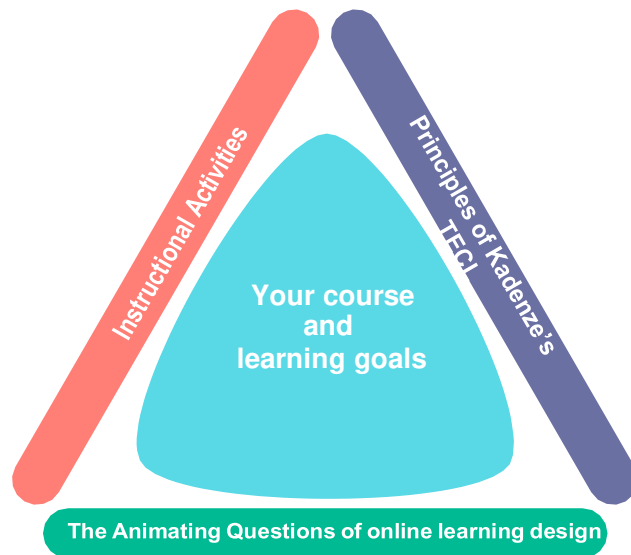
Now you have clarified and identified your goals you can begin designing your course. This involves using the three dimensions of Kadenze's **Technology Enabled Creative Learning** (TECL). All effective course design involves the interplay of the following three dimensions.

The Principles of Kadenze's Technology Enabled Creative Learning (TECL).

Instructional Activities to be selected and sequenced to create effective learning pathways.

The animating questions guiding all effective online pedagogy. The essential questions all learning designers must answer.

The figure highlights the relationship between these dimensions of course design and your emerging course.

As you design your course it is important to hold all three dimensions in mind. This is not a linear process where you can 'do' each dimension separately, one after the other. Designing a course is a creative process, moving dynamically across dimensions as your skills and ideas take shape for the benefit of others.

Dimension 1

THE **8** PRINCIPLES OF KADENZE'S TECL

The art of learning design lies in the way instructional activities are positioned and a learning pathway sequenced to maximise learning. It is not simply a matter of bouncing from one activity to the next. A shared set of guiding principles is needed to inform the overall logic of your course design. Kadenze's TECL explicitly applies eight well-established principles of arts and design education. When these principles are applied, they activate 'learning effects' to deepen learner engagement.

The **eight principles** of TECL and the learning effects they create are:

1. **Create:** Making things, early in a course and often.

2. **Tell stories:** building your learning in and through short and long narratives.

3. **Simulate:** using 'make believe', realistic simulation and branching scenarios for analysis.

4. **Observe:** repeatedly, over time and for depth.

5. **Let meaning emerge:** Let curiosity lead. Withhold answers.

6. **Let meaning come together:** ensure coherence by synthesizing what has been tried, observed, considered.

7. **Reflect:** to gain deeper and fresh perspectives to share.

8. **Master:** practice skills through creative exercises and presentations.

THE 8 PRINCIPLES OF TECL

You can find more on these principles in our four vodcasts available at the following links.

Part 1. The Creation Effect, The Narrative Effect https://blog.kadenze.com/digital-learning/ how-the-8-effects-of-arts-education-are-changing-online-pedagogy-part-1/

Part 2. The Fictional-Reality Effect, The Reflection Effect https://blog.kadenze.com/digital-learning/how-the-8-effects-of-arts-education-are-changing-online-pedagogy-part-2/?utm_source=kadenze_blog&utm_medium=referral&utm_campaign=mastery_effect_online_education

Part 3. The Emergence and Coherence Effects, The Artistic Redundancy Effect https://blog.kadenze.com/digital-learning/how-the-8-effects-of-arts-education-are-changing-online-pedagogy-part3/utm_source=kadenze_blog&utm_medium=referral&utm_campaign=mastery_effect_online_education

Part 4. The Mastery Effect https://blog.kadenze.com/digital-learning/how-the-8-effects-of-arts-education-are-changing-online-pedagogy-part-4/

Dimension 2

INSTRUCTIONAL ACTIVITIES

which can be selected and sequenced to create potent learning sessions.

At Kadenze we have designed kannu, our Learning Management System (LMS), to enable instructors to draw on a range of instructional activities to enhance creativity in learning. However, no matter what LMS you use to deliver your course, it is important that you become familiar with the full range of instructional activities that can support creative education online. Once you become familiar with each type of instructional activity, you will be able to choreograph your learning sequence in ways you value most, guided by the other two dimensions of course design.

Completing a creative task

A making activity which asks learners to create or design an outcome in response to a particular challenge. Creative outcomes are expressive and open in that their meaning is subject to the interpretations of others.

Listen to audio

Audio content can serve your course much like video or other media. Audio formats like podcasts are good for longer content selections as they allow students to listen in their own time, even when they are away from Wi-Fi signal or engaged in other tasks, like commuting.

Simulation

A simulation takes a slice of real life, imitates it, and then asks learners to accept it as if for real. As they work through the possible choices a simulation presents, learners are required to respond by making decisions, and revising old decisions, to effectively manage the contingencies they are facing.

Multi-media presentation

This is a complete and coherent presentation of content and information mixing screen products of some kind (eg images, slides, video) and sound which could include a voice over, music or sound effects.

INSTRUCTIONAL ACTIVITIES

Digital Case Study (DCS)

A digital case study starts with a scripted enactment of a conversation between two or more people discussing a 'wicked' problem. Following this stimulus, various courses of action are discussed and branched actions agreed upon. These actions are then tested as part of the DCS. The rich interpersonal dynamics opened up is the perfect stimulus for further participant role-play which can be video recorded and shared for review.

Post to Forum

The objects and ideas learners produce are incomplete without feedback. Today 'feedback harvesting' comes through posting and sharing online. When we share understandings and feelings by posting them in a learning forum, we are setting up dialogues of thinking and doing, and perhaps between the past, present and future.

Video Conference

Community interactions are a critical component of creativity online. Video conferencing software (such as Zoom) effectively facilitates live gatherings, as if in an actual class. Synchronous learning, where a group of students engage in learning at the same time, is often not possible in a course running across all global time zones. However small break out video conference rooms can gather students in aligned zones to build smaller learning communities. Give advanced notice of video conferences in a detailed course schedule so students can diarize these assemblies.

Post to Gallery

Gallery posts allow learners to share non-textual items for feedback and critique. Such items may include still and moving images, music and sound and digital works.

INSTRUCTIONAL ACTIVITIES

Set Readings

Set readings provide an opportunity to expose students to experts and influencers in the field. Students can proceed at their own pace and engage in their own analysis. Readings pair well with forum discussions or other student-to-student interactions. Assigning a reading often deepens the short introduction outlined in a bespoke video.

Reflection activity

Reflection is essential if we are to learn from our experience. The key to deepening reflection lies in the questions the instructors pose. The most effective questions seek more than mere descriptions of events. Instead, they press learners to interpret, evaluate, compare, make judgements and then present evidence for those judgements.

Research to discover more

Research can fan the curiosity of your students and drive them further and deeper into the course. Students can research from resources provided by you on the course platform or they may be asked to find their own sources. A good research project always starts with a well-focused and clearly defined question crafted by either the instructor or students.

Surveys

Surveys are an effective way of monitoring the student learning experience. They allow learners to clarify their own response to and progression through the course. Students may put together their own surveys and then share their findings with their peers.

INSTRUCTIONAL ACTIVITIES

Video - found

With over 90% of the stored information of the world held in digital form, instructors have an unprecedented opportunity to bring the world to their virtual studios and cyber haunts. However, curating such assets for breadth or depth needs to be done thoughtfully.

Post on social media

You can broaden learning conversations by involving social media networks. Students can share work for feedback, gather responses from the field and test early ideas and provocations. Social media is a powerful means of expanding community networks and gathering feedback on creative projects.

Video – bespoke

The use of video is pervasive in online learning as it allows you to tailor key content specifically for your subject and your cohort, and it can be watched over and over. Instructional videos involve a teacher speaking directly to the learner and explaining a concept or demonstrating a skill. Case study videos present more complex materials, such as a real world situation for students to examine and analyze. Videos should do more than replace the live instructor and introduce fresh content. Placed in thoughtful conjunction with other activities, instructional videos can extend and transform understandings developed in the sessions.

INSTRUCTIONAL ACTIVITIES

Pre-text with artefacts

A pre-text presents a task or challenge with an air of mystery to stimulate the curiosity of learners. The artefacts may be presented as images, text or video which frame the problem to be investigated. Artefacts may be real (this is the Manifesto of the Staatliches Bauhaus from April 1919) or fictional (we have recently uncovered these preliminary designs…could they be by Frank Lloyd Wright?)

Game

The structure of many common games can be applied to or adapted for learning. The flow and circumstances of a *treasure hunt* for instance can mirror a challenge-based sequence of tasks for discovery or skills acquisition.

H5P templates

These are free plug-ins which allow instructors to create lively interactive instructional activities investigating content of their choice. Over 30 learning tools can be created and applied using H5P.

Quiz

A quiz is used frequently in online learning as a way of testing that students have understood key concepts. They are appropriately used to confirm that students have retained factual knowledge, where answers can be judged right or wrong. Regular testing in this way can also help students monitor their learning journey. A quiz is far less useful for testing understandings of more complex or ambiguous content.

MAPPING A LEARNING PATHWAY (EXEMPLAR) Each pathway through the instructional activities is the result of actively considering all three dimensions of Kadenze's TECL

Creative activity	Creative activity	Creative activity	Creative activity
Simulation	Simulation	Simulation	Simulation
Listen to audio/podcasts	Listen to audio/podcasts	Listen to audio/podcasts	Listen to audio/podcasts
Multi-media presentation	Multi-media presentation	Multi-media presentation	Multi-media presentation
Digital Case Study	Digital Case Study	Digital Case Study	Digital Case Study
Video conferencing	Video conferencing	Video conferencing	Video conferencing
Post to Forum	Post to Forum	Post to Forum	Post to Forum
Post to Gallery	Post to Gallery	Post to Gallery	Post to Gallery
A research task	A research task	A research task	A research task
A Reflection activity	A Reflection activity	A Reflection activity	A Reflection activity
A Set reading	A Set reading	A Set reading	A Set reading
Undertake a survey	Undertake a survey	Undertake a survey	Undertake a survey
Video - bespoke	Video - bespoke	Video - bespoke	Video - bespoke
Video - found	Video - found	Video - found	Video - found
Social media post	Social media post	Social media post	Social media post
Pre-text with Artefacts	Pre-text with Artefacts	Pre-text with Artefacts	Pre-text with Artefacts
Game	Game	Game	Game
H5P template	H5P template	H5P template	H5P template
Quiz	Quiz	Quiz	Quiz

Dimension 3

THE ANIMATING QUESTIONS GUIDING EFFECTIVE ONLINE PEDAGOGY

While the guiding principles of TECL provide an overarching logic to the design of learning sequences or sessions, they need to be complemented by a number of educational tenets known to improve the quality of learning and the experience of online learners. We have found that framing these as questions for course designers is the most effective way of keeping them present during the curriculum design process. How will you actively address the following questions?

SEQUENCING

1. How will I position and pace each activity and learning sequence?

What is the best order for your learning activities? One starting point is to decide what you want students to complete and then work backwards from that. What would your students need to have done, learned or thought about in each step towards that final activity?

How will you manage the flow and variety of your course? How long will it take students to complete each instructional activity? How might one activity lead to the next?

A good course is sequenced in an optimal order. Students move step by step towards their final outcomes such that each learning activity scaffolds the next activity. A strong sequence helps your students to feel curious about and capable of doing what comes next. An engaging course spreads out the challenges and varies the kinds of activities students will engage with, so students are neither bored by repetitive and tedious tasks nor frustrated by excessive or irrelevant challenges.

THE ANIMATING QUESTIONS

FEEDBACK

2. How will I help students see the progress they have made?

Student learning is deepened when they can track their accomplishments. Effective courses mix learning activities that reinforce and apply what students have learned with fresh content and creative challenges. How will you structure multiple opportunities for students to test their knowledge, or express what they understand in their own words or creative works?

QUESTIONING

3. How will I craft and position key questions to deepen learning?

The questions you pose throughout your course will have a significant impact on learning, critical thinking, engagement and emotional response. Good questions kindle real curiosity and connect clearly with your goals. Questions need not be long or complicated to be effective. Take time and care in shaping them. What follow up questions will prompt your students to think about why or how they arrived at a particular response? When questions are related to your goals it creates a sense of coherence and can help your students move from simpler to more complex concepts.

THE ANIMATING QUESTIONS

COMMUNITY & COLLABORATION

4. How can I enable students to learn from each other?

How will I ensure collaborative opportunities will stimulate engagement and increase my course completion rates? Include small collaborative opportunities early, maybe pairs responding to each other's work. Expand these challenges and groupings as trust and personal understandings grow. Collaborative tools, like instant messaging, are perfect for building learning communities and enabling knowledge transfer and exposing diverse habits of mind between students, especially interculturally. Remember the world is likely to be in your class!

PASSIONS & REWARDS

5. How do the activities I select amplify students' motivation?

While some students will take your course for the certificate or credit it brings, for many others your course will connect with their passions and deep interests. They will be hungry to know more about this topic, so how do you use that hunger to motivate them to want to know even more, perform highly and surprise themselves with their achievements? Use a survey to understand why students have enrolled in your course and connect your tasks and activities with their ambitions and lives. Remember the power of harnessing creativity to motivate learning. How will you make the experience of your course a creative one?

THE ANIMATING QUESTIONS

CONSISTENCY & COHERENCE

6. How can I help students recognize patterns?

Pattern recognition is increasingly identified as a key 21st Century thinking skill. How will you challenge learners to identify and make sense of patterns, comparisons and divergences in the content of your course? Pattern recognition occurs across both the sciences and the arts and is a central attribute of STEAM enquiry. (Science, Technology, Engineering, Arts and Mathematics.)

COMPLEX COMMUNICATIONS

7. How can I make student communication tasks more complex and rich?

This is a generic attribute of 21st Century learning and is known as the fourth 'C' – communication (along with creativity, critical thinking and collaboration). How might you diversify the speaking, listening, writing, codifying and expressive tasks for learners? How might you vary audiences and forms of communication to shift the contexts and purposes of communication? How might you structure opportunities for students to use the languages of informing, imagining, feeling, controlling and negotiating?

THE ANIMATING QUESTIONS

PRESENCE

8. How will I communicate my enthusiasm and presence as a teacher?

It has been shown that one of the most potent influences on student achievement is teacher credibility. Given that, be neither too humble nor a braggart. How will you demonstrate your credibility as a teacher to those enrolled? In online courses, the teacher is an instructor, host and guide. A student will stay longer and travel further if you are engaging and engaged. Students will follow your lead as a curious and committed learner yourself. How can you adjust your script and presentation style to show your own interest in and commitment to your topic?

CONCLUSION

Kadenze's TECL framework has been developed through and tested in practice by creative educators from many countries.

As you apply it to meet the specifics of your context, content and learners we encourage you to adapt, expand and experiment with it, confident in the belief that your course will meet the needs of your learners and stand as a fine example of aesthetic education.

We welcome your questions and feedback.

Please register your interest in attending a webinar on TECL, by contacting us at **kadenze.com**

ACKNOWLEDGEMENTS

Authors

The TECL framework was developed by the following team at Kadenze,Inc.

- Brad Haseman, Executive Vice President, Kadenze, Inc.
- John Holyoke, Lead Instructional Specialist, Lincoln Center Education
- Amanda Morris, Director Higher Education Engagement, Kadenze, Inc.

in collaboration with our many Kadenze colleagues who have spent thousands of hours building cutting-edge online courses in the creative arts, design, creative technology and creative education.

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The Kadenze team acknowledge the importance of the following key works:

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Kadenze, Inc. is your partner in online learning for the creative arts, design and creative technology.

We welcome enquiries from prospective partners for the following:

kadenze.com

University Courses are from partners, taken from their undergraduate programs, and approved by their Academic Boards. Many courses are approved for credit transfer between institutions. All courses are accessed by learners becoming Premium Members of kadenze.com at USD $20.00 per month.

Programs are prepared by industry partners and universities dealing with in-demand workplace skills. Programs are purchased for a set fee.

Micro-courses are shorter learning packages designed for artists and creatives everywhere. Prepared by discipline experts these are highly personalized learning opportunities which are just-enough and just-in-time for busy learners. Micro-courses are purchased for a set fee.

Kadenze's Learning Management System (LMS)

All kadenze.com courses are built on **Kannu, our proprietary Learning Management System** (LMS) designed to create learning pathways which are highly interactive, media-rich and engrossing.

Kadenze Virtual Studio (KVS) was launched in August 2020. A Kadenze Virtual Studio gives independent studio teachers and artists their own platform to teach their own content, the way they choose. This pure white-label teaching solution streamlines planning, designing, delivering and managing classes and content all through the one centralized technology.