Creativity course

By Mario Miqueles Maureira

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A complete guide of theory and practice to learn and teach creativity

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Study program

Course description

This course provides theoretical and practical tools to develop and apply creativity in personal and professional contexts. Through active methodologies, experiential exercises, and real projects, participants will explore techniques such as SCAMPER, mind maps, and lateral thinking. It is ideal for educators, creatives, and individuals who want to enhance their creative thinking in a structured and applied way.

Competency to be acquired in this course

Use creativity consciously and methodologically to generate innovative ideas and/or possible solutions to problems at any time.

Learning methodology

a. Reading bibliography (2 hours per week)
b. Developing practical exercises (3 hours per week)
c. Self-assessments (1 hour per week)

Duration

20 weeks, with an approximate dedication of 6 hours per week.

Modality

This course can be taken in person or online, synchronously or asynchronously, and either in groups or individually.

Progression of the competency to be acquired

Unit 1. Introduction to creativity

Week 1. Recognize the different types of creativity

Week 2. Understand the historical evolution of creativity

Week 3. Learn the basic theories of creativity

Week 4. Understand the definition of creativity

Unit 2. Creative thinking techniques

Week 5. Learn basic brainstorming techniques

Week 6. Recognize divergent and convergent thinking

Week 7. Apply lateral thinking techniques

Week 8. Develop divergent thinking

Unit 3. Creative techniques for problem solving

Week 9. Identify problem areas

Week 10. Generate potential solutions

Week 11. Evaluate the feasibility of the solution

Week 12. Apply problem-solving methodologies

Unit 4. Tools for idea generation

Week 13. Use brainstorming for ideation

Week 14. Use mind maps for ideation

Week 15. Use SCAMPER for ideation

Week 16. Generate and refine ideas

Final project

Week 17. Empathize with a target group

Week 18. Define a project

Week 19. Ideate possible solutions

Week 20. Prototype a solution

Course evaluation

The evaluation of this creativity course has been designed to foster reflection, progressive engagement, and the development of creative competencies in an authentic and practical way. Each activity includes a clear rubric that allows students to self-assess their performance in a transparent and formative manner.

Each type of activity has its own individual and total percentage value. Below is a descriptive table with key information to consider when conducting the evaluations for this course.

Type of activity	Quantity	% individual	% total
Creative Challenges	4	2%	8%
Weekly Practical Exercises	16	3%	46%
Final Project (4 Stages)	4	8%	32%
Idea Notebook	1	14%	14%
Total	-	-	100%

Evaluation rubrics

Each activity must be evaluated using the corresponding rubrics included with each activity. Each evaluation rubric consists of four performance levels with their respective associated scores.

Performance Level	Score per criterion	Total possible score
Excellent	4 points	16 points
Good	3 points	12 points
Acceptable	2 points	8 points
Insufficient	1 points	4 points

Performance scale

To calculate overall performance in the course:

1. Evaluate each activity using the corresponding rubric.
2. Add up the total score for each activity (maximum 16 points).
3. Convert that score to a percentage using this formula:

(score obtained ÷ 16) × activity percentage

4. Add all the weighted percentages obtained.

Interpret the total result using the following performance scale:

% obtained from the total course	Final performance level
0% to 25%	Insufficient
26% to 50%	Acceptable
51% to 75%	Good
76% to 100%	Excellent

Evaluation table

Use the evaluation table provided below to keep a record of each assessment. Once all course activities have been completed, you will be able to evaluate the overall performance. Use the example evaluation table as a guide on how to fill it out.

Each activity must be evaluated according to its rubric, recording the score obtained (from 1 to 16). The "Estimation (formula)" column indicates how to convert the score into a percentage, and the "% Achieved" represents the weighted value of that activity.

Evaluation table (template)

Activities	Points	% assigned	Estimation	% achieved
Challenge 1		2%	= (_____/16) * 2	
Week 1 excercise		3%	= (_____/16) * 3	
Week 2 excercise		3%	= (_____/16) * 3	
Week 3 excercise		3%	= (_____/16) * 3	
Week 4 excercise		3%	= (_____/16) * 3	
Challenge 2		2%	= (_____/16) * 2	
Week 5 excercise		3%	= (_____/16) * 3	
Week 6 excercise		3%	= (_____/16) * 3	
Week 7 excercise		3%	= (_____/16) * 3	
Week 8 excercise		3%	= (_____/16) * 3	
Challenge 3		2%	= (_____/16) * 2	
Week 9 excercise		3%	= (_____/16) * 3	
Week 10 excercise		3%	= (_____/16) * 3	
Week 11 excercise		3%	= (_____/16) * 3	
Week 12 excercise		3%	= (_____/16) * 3	
Challenge 4		2%	= (_____/16) * 2	
Week 13 excercise		3%	= (_____/16) * 3	
Week 14 excercise		3%	= (_____/16) * 3	
Week 15 excercise		3%	= (_____/16) * 3	
Week 16 excercise		3%	= (_____/16) * 3	
Final project week 17		8%	= (_____/16) * 8	
Final project week 18		8%	= (_____/16) * 8	
Final project week 19		8%	= (_____/16) * 8	
Final project week 20		8%	= (_____/16) * 8	
Idea notebook		14%	= (_____/16) * 14	
Total	-	-	-	
				de 100%
Final permormance level				

Evaluation table (example)

Activities	Points	% Assigned	Estimation	% Achieved
Challenge 1	10	2%	= (10/16) * 2	1,25%
Week 1 excercise	10	3%	= (10/16) * 3	1.875%
Week 2 excercise	14	3%	= (14/16) * 3	2,625%
Week 3 excercise	16	3%	= (16/16) * 3	3%
Week 4 excercise	14	3%	= (14/16) * 3	2,625%
Challenge 2	14	2%	= (14/16) * 2	1,75%
Week 5 excercise	16	3%	= (16/16) * 3	3%
Week 6 excercise	12	3%	= (12/16) * 3	2,25%
Week 7 excercise	12	3%	= (12/16) * 3	2,25%
Week 8 excercise	16	3%	= (16/16) * 3	3%
Challenge 3	16	2%	= (16/16) * 2	2%
Week 9 excercise	14	3%	= (14/16) * 3	2,625%
Week 10 excercise	14	3%	= (14/16) * 3	2,625%
Week 11 excercise	10	3%	= (10/16) * 3	1.875%
Week 12 excercise	14	3%	= (14/16) * 3	2,625%
Challenge 4	12	2%	= (12/16) * 2	1,5%
Week 13 excercise	16	3%	= (16/16) * 3	3%
Week 14 excercise	14	3%	= (14/16) * 3	2,625%
Week 15 excercise	10	3%	= (10/16) * 3	1.875%
Week 16 excercise	10	3%	= (10/16) * 3	1.875%
Final project week 17	14	8%	= (14/16) * 8	7%
Final project week 18	12	8%	= (12/16) * 8	6%
Final project week 19	14	8%	= (14/16) * 8	7%
Final project week 20	10	8%	= (10/16) * 8	5%
Idea notebook	16	14%	= (16/16) * 14	14%
Total	-	-	-	**75,77%**
				de 100%
Final permormance level	**Good**			

Bibliography

Alessandroni, N. (2017). Imaginación, creatividad y fantasía en Lev S. Vygotski: una aproximación a su enfoque sociocultural. Actualidades en Psicología, 31(122), 45–60.

Almeida, L. S., Prieto, L. P., Ferrando, M., Oliveira, E., & Ferrándiz, C. (2008). Torrance Test of Creative Thinking: The question of its construct validity. Thinking Skills and Creativity, 3(1), 53–58.

Altshuller, G. (1999). The innovation algorithm: TRIZ, systematic innovation, and technical creativity. Worcester, MA: Technical Innovation Center.

Amabile, T. M. (1983). The social psychology of creativity: A componential conceptualization. Journal of Personality and Social Psychology, 45(2), 357–376.

Amabile, T. M. (1996). Creativity in Context. Westview Press.

Amabile, T. M. (2012). Componential theory of creativity (Working Paper No. 12-096). Harvard Business School.

Arnheim, R. (1969). Visual Thinking. University of California Press.

Basadur, M. S., Runco, M. A., & Vega, L. A. (2000). Understanding how creative thinking skills, attitudes and behaviors work together: A causal process model. The Journal of Creative Behavior, 34(2), 77–100.

Basadur, M., & Gelade, G. A. (2005). The role of knowledge management in the innovation process. Creativity and Innovation Management, 14(1), 45–62.

Basadur, M., Basadur, T., & Calic, G. (n.d.). Organizational development. In Handbook of Organizational Creativity. Manuscript.

Basadur, M., Basadur, T., & Gelade, G. (2013). Simplexity thinking. En E. G. Carayannis (Ed.), Encyclopedia of Creativity, Invention, Innovation and Entrepreneurship. Springer.

Basadur, M., Gelade, G., & Basadur, T. (2014). Creative problem solving process styles, cognitive work demands, and organizational adaptability. Journal of Applied Behavioral Science, 50(1), 80–115.

Boden, M. A. (2004). The creative mind: Myths and mechanisms (2nd ed.). Routledge.

Bonnardel, N., & Didier, J. (2020). Brainstorming variants to favor creative design. Applied Ergonomics, 83, 102987.

Brown, T. (2009). Change by Design: How Design Thinking Creates New Alternatives for Business and Society. Harvard Business Press.

Buzan, T. (2004). Cómo crear mapas mentales. Ediciones Urano.

Buzan, T. (2006). The ultimate book of mind maps. Thorsons.

Byron, K. (2012). Creative reflections on brainstorming. London Review of Education, 10(2), 201–213.

Cabrera Cuevas, J. (2018). Epistemología de la creatividad desde un enfoque de complejidad. Educación y Humanismo, 20(35), 114–128.

Cropley, D. H. (2015). Creativity in engineering. En G. E. Corazza & S. Agnoli (Eds.), Multidisciplinary contributions to the science of creative thinking (pp. 155–173). Springer.

Cropley, A. J. (2015). Promoting Creativity in Engineering Students. In D. D. Williams (Ed.), Exploring Innovation in Education and Using the iPad (pp. 53–71). University of Latvia Press.

Cropley, D. H., & Patston, T. J. (2019). Supporting creative teaching and

learning in the classroom: Myths, models, and measures. En C. A. Mullen (Ed.), Creativity Under Duress in Education? (pp. 267–288). Springer.

Csikszentmihalyi, M. (1996). Creativity: Flow and the psychology of discovery and invention. HarperCollins.

Csikszentmihalyi, M. (1998). Fluir (Flow): Una psicología de la felicidad. Barcelona: Editorial Kairós.

de Barros, R., Resende, L. M., & Pontes, J. (2025). Exploring creativity and innovation in organizational contexts. Journal of Open Innovation, 11, 100526.

De Bono, E. (1990). Lateral thinking: A textbook of creativity. Penguin Books.

De Bono, E. (1986). Six thinking hats. Viking.

De Bono, E. (1992). Serious Creativity: Using the Power of Lateral Thinking to Create New Ideas. HarperBusiness.

Dow, S. P., Glassco, A., Kass, J., Schwarz, M., Schwartz, D., & Klemmer, S. R. (2010). Parallel prototyping leads to better design results, more divergence, and increased self-efficacy. ACM Transactions on Computer-Human Interaction (TOCHI), 17(4), 18.

Duch, W. (2007). Creativity and the brain. In A.-G. Tan (Ed.), A handbook of creativity for teachers (pp. 507–530). World Scientific Publishing.

Eberle, B. (2008). SCAMPER: Creative games and activities for imagination development. Prufrock Press.

Finke, R. A., Ward, T. B., & Smith, S. M. (1992). Creative Cognition: Theory, Research, and Applications. MIT Press.

Gardner, H. (1995). Estructuras de la mente: La teoría de las inteligen-

cias múltiples (Original work published in 1983 as Frames of Mind: The Theory of Multiple Intelligences). Fondo de Cultura Económica.

Gaut, B. (2022). Group creativity. Royal Institute of Philosophy Supplement, 92, 5–26.

Glăveanu, V. P. (2014). Distributed creativity: Thinking outside the box of the creative individual. Springer.

Guilford, J. P. (1967). The nature of human intelligence. McGraw-Hill.

Hattie, J., & Timperley, H. (2007). The Power of Feedback. Review of Educational Research, 77(1), 81–112.

Isaksen, S. G., Dorval, K. B., & Treffinger, D. J. (2003). Creative problem solving (CPS version 6.1™): A contemporary framework for managing change. Center for Creative Learning, Inc. y Creative Problem Solving Group, Inc.

Isaksen, S. G., & Treffinger, D. J. (2005). Creative problem solving: The history, development, and implications for gifted education and talent development. Gifted Child Quarterly, 49(4), 342–353.

Isaksen, S. G., Dorval, K. B., & Treffinger, D. J. (2011). Creative problem solving: Powerful tools for managing change (4th ed.). Creative Problem Solving Group.

Isaksen, S. G. (2013). A compendium of evidence on creative problem solving. Orchard Park, NY: The Creative Problem Solving Group.

Kaufman, J. C., & Beghetto, R. A. (2009). Beyond big and little: The Four C model of creativity. Review of General Psychology, 13(1), 1–12.

Kaufman, J. C., & Sternberg, R. J. (2010). The Cambridge Handbook of Creativity. Cambridge University Press.

Kelley, T., & Kelley, D. (2013). Creative Confidence: Unleashing the Creative Potential Within Us All. Crown Business.

Kilgour, M. (2006). Improving the creative process: Analysis of the effects of divergent thinking techniques and domain specific knowledge on creativity. International Journal of Business and Society, 7(2), 79–107.

Klein, R. D. (1972). Evolving creative behavior (Doctoral dissertation, University of Massachusetts Amherst).

Kozbelt, A., Beghetto, R. A., & Runco, M. A. (2010). Theories of creativity. En J. C. Kaufman & R. J. Sternberg (Eds.), The Cambridge handbook of creativity (pp. 20–47). Cambridge University Press.

Michalko, M. (2006). Thinkertoys: A Handbook of Creative-Thinking Techniques (2nd ed.). Ten Speed Press.

Mueller, P. A., & Oppenheimer, D. M. (2014). The Pen Is Mightier Than the Keyboard: Advantages of Longhand Over Laptop Note Taking. Psychological Science, 25(6), 1159–1168.

Novak, J. D., & Cañas, A. J. (2006). The theory underlying concept maps and how to construct them (Technical Report IHMC CmapTools 2006–01 Rev 01–2008). Florida Institute for Human and Machine Cognition.

Ohno, T. (1988). Toyota production system: Beyond large-scale production. Productivity Press.

Osborn, A. F. (1948). Your Creative Power: How to Use Imagination to Brighten Life, to Get Ahead. Charles Scribner's Sons.

Puccio, G. J., & Holinger, M. (2020). Alex Osborn: Applied creativity pioneer. The Journal of Creative Behavior, 54(2), 402-425.

Robinson, K., & Aronica, L. (2015). Creative schools: The grassroots revolution that's transforming education. Viking Penguin.

Runco, M. A., & Acar, S. (2012). Divergent thinking as an indicator of creative potential. Creativity Research Journal, 24(1), 66–75.

Roam, D. (2009). The Back of the Napkin: Solving Problems and Selling Ideas with Pictures. Portfolio.

Sawyer, R. K. (2015). Group flow and group genius. The NAMTA Journal, 40(3), 29-52.

Sawyer, R. K., & Henriksen, D. (2024). Explaining creativity: The science of human innovation (3rd ed.). Oxford University Press.

Savery, J. R. (2006). Overview of Problem-Based Learning: Definitions and Distinctions. Interdisciplinary Journal of Problem-Based Learning, 1(1), 9–20.

Torrance, E. P., & Torrance, J. P. (1973). Is creativity teachable? Bloomington, IN: Phi Delta Kappa Educational Foundation.

Torrance, E. P., Almeida, L. S., Prieto, M. D., Ferrando, M., Ferrándiz, C., & Saiz, C. (2008). Torrance Test of Creative Thinking: The question of its construct validity. Thinking Skills and Creativity, 3(1), 53–58.

Treffinger, D. J., Isaksen, S. G., & Dorval, K. B. (2000). Creative problem solving: The history, development, and implications for gifted education and talent development. Gifted Child Quarterly, 44(4), 326–329.

Treffinger, D. J., Isaksen, S. G., & Stead-Dorval, K. B. (2006). Creative problem solving: Powerful tools for managing change. Gifted and Talented International, 22(2), 8–17.

Treffinger, D. J., & Selby, E. C. (2008). Comprendiendo y desarrollando la creatividad: una aproximación práctica. Revista de Psicología, 26(1), 7–21.

VanGundy, A. B. (2005). 101 activities for teaching creativity and problem

solving. Pfeiffer.

Vázquez Gestal, M. (2000). Apuntes sobre creatividad: origen del término y su pervivencia. Revista Latina de Comunicación Social, 25.

Wyse, D., & Ferrari, A. (2015). Creativity in education: An overview of the implications of creativity in curricula. In A. Runco & S. Pritzker (Eds.), International encyclopedia of creativity (2nd ed.). Routledge.

Yentzen, E. (2003). Teoría general de la creatividad. Polis, Revista Latinoamericana, 6.

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