Assessing Creativity

A New Approach for Students, Teachers, and Educational Leaders

One of the great myths about creativity is that it is a quality immune from objective assessment. In fact, creativity can be assessed – indeed, assessment is an essential element of any educational environment that seeks to foster creativity. The challenge is that most assessment of creativity is dead wrong. These assessments are not only inconsistent with the best research on the subject, but actually stifle the risk, error, and failures that are essential to creative endeavor. This workshop provides practical guidelines about the best (and worst) practices in assessment and offers participants the opportunity to make personal application of these principles to their specific professional responsibilities.

The Presenter:

Dr. Douglas Reeves has addressed audiences around the globe on educational leadership and effective teaching. The author of more than 80 articles and 30 books, he was twice named to the Harvard University Distinguished Authors Series. Doug was named the Brock International Laureate for his contributions to educational research and received the Contribution to the Field Award from the National Staff Development Council. Doug's volunteer work includes helping doctoral students complete their dissertation (see FinishTheDissertation.org) and providing one-to-one writing coaching for veterans suffering from post-traumatic stress disorder (PTSD). Their collected work will appear in 2016 in the ***SNAFU Review***, which Doug edits and publishes. He lives with his family in downtown Boston.

Creativity Quiz

	Disagree			Neutral			Agree		
1. Some people are born with innate creative talents. It's in their genes.	☐	☐	☐	☐	☐	☐	☐	☐	☐
2. Combining other people's ideas into a new combination is just as creative as coming up with something on your own.	☐	☐	☐	☐	☐	☐	☐	☐	☐
3. In order to be creative one needs to have unfettered reign to express yourself.	☐	☐	☐	☐	☐	☐	☐	☐	☐
4. Creative ability peaks in early life.	☐	☐	☐	☐	☐	☐	☐	☐	☐
5. Creative work is fundamentally easier and more enjoyable than other types of work, like number crunching or manual labor.	☐	☐	☐	☐	☐	☐	☐	☐	☐
6. Working with others allows greater opportunities to be creative than working alone.	☐	☐	☐	☐	☐	☐	☐	☐	☐
7. Brainstorming is the best way of coming up with new ideas in a group.	☐	☐	☐	☐	☐	☐	☐	☐	☐
8. When doing creative work it's important to take your time and get it right the first time than risk wasting resources making mistakes.	☐	☐	☐	☐	☐	☐	☐	☐	☐
9. Creativity cannot happen without inspiration.	☐	☐	☐	☐	☐	☐	☐	☐	☐
10. There are no major differences between people who think with the left side of their brain and those who think with their right side.	☐	☐	☐	☐	☐	☐	☐	☐	☐
11. Originality is a defining aspect of creativity.	☐	☐	☐	☐	☐	☐	☐	☐	☐
12. It is possible to force oneself into a creative mindset through habit and action.	☐	☐	☐	☐	☐	☐	☐	☐	☐
13. When working on a new idea, it's important to ignore negative criticism and forge ahead.	☐	☐	☐	☐	☐	☐	☐	☐	☐

14. When working on a project it's important to spend time exploring possible solutions instead of buckling down and getting the work done. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
15. Creative inspiration is like lightning; it can strike at any time and there's no way of predicting its behavior. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
16. Too many guidelines or rules throttle creative progress and ability. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
17. Creativity is an important aspect of the sciences as well as the arts. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
18. Educators fail students when they don't allow them to express themselves unconditionally and by putting expectations on their creative work. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
19. Compromise is an important trait of the creative personality. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
20. Execution of an idea is just as important as coming up with the original insight. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Creativity Development Matrix Self-Assessment

Creativity Essential	Level 1	Level 2	Level 3	Level 4
1. Mistake- Tolerant Culture	The culture requires compliance. Success is equated with avoiding mistakes. "We've worked too hard to get to where we are to mess it up with any new ideas."	Initiatives are more characterized by announcements, labels, and speeches – not substantive changes in professional practice. The culture "declares victory and moves on" rather than expose new ideas to systematic evaluation.	Within the past year you can think of at least two specific ideas that were welcomed as potentially worthy, subjected to rigorous experimentation, and then rejected – all without negative consequences to the bankers of those ideas.	Learning mistakes – errors that test hypotheses and found them to be wrong – are visibly celebrated. We have the bone- deep belief that a "zero mistake zone" is a "zero learning zone."
2. Rigorous Decision-making Systems	The leader decides and the team implements.	We listen to presentations from competing vendors and come to a consensus about what to decide.	We consider at least two alternatives and use the best available evidence from a variety of sources and methods.	We always consider at least two mutually exclusive hypotheses and test them with data. We *know* what works and doesn't work because we test alternatives.
3. Culture that nurtures creativity	We are a "high- reliability" system. We know what works and we deliver that product – student learning – in a consistently effective way based upon decades of experience and research.	When we make changes, we do so around the edges. Our fundamental mission, vision, and values are "untouchables" whatever changes we make must be made without violating our sacred traditions.	We can identify a significant change which was studied, debated, implemented, tested, and that stood the test of time through constant rigorous assessment.	We have many case studies, modeled on well-recognized creative successes in music, art, engineering, teaching, learning, and leadership. Our students and staff have the discipline to start with repetition and the courage to experiment creatively with new ideas.

Creativity Essential	Level 1	Level 2	Level 3	Level 4
4. Leadership Models and Supports Creativity	We might try some initiatives, such as new technology implementation, but that's for the Geek Squad, not busy leaders. When it's all working perfectly, the leaders will take a look – but not until there is no risk of public embarrassment.	Leaders are masters of the rhetoric of change. They have posters on the virtues of innovation and creativity in their offices and return from conferences with lots of futuristic thinking, typically framed in vague phrases and evidence-free predictions.	Leaders know that creative ideas will lack credibility without visible leadership support. There are at least a couple of examples in the past year when the leader personally modeled a change before it was implemented throughout the organization.	Leaders are actively engaged in experimentation, including flipping agendas for board meetings and personally engaging in alternative learning and teaching strategies. Leaders openly talk about their biggest mistakes and what they learned from them.

Evaluating Creativity Rubrics

This matrix is designed to assess and improve rubrics and scoring guides that are designed to evaluate student creativity.

Dimension	Developing (1)	Progressing (2)	Proficient (3)	Exemplary (4)
Research Basis	The rubric is based on intuition or hunches and has little basis in research as evidenced by the promotion of practices[1] that are contrary to research.	The rubric includes some elements based in research and some other elements that are not based on research.	The rubric reflects current research on creativity.	The rubric reflects the latest and best research on creativity, with clear citations.
Multidisciplinary Perspective	The rubric focuses narrowly on subjects and ideas from a single discipline, and explicitly punishes or dissuades students from using sources or media from other disciplines.	The rubric allows students to explore projects in an individual interdisciplinary approach, but does not evaluate or note that approach.	The rubric encourages and rewards an interdisciplinary perspective.	There is clear evidence that students, through an iterative process expand the scope of their work to include ideas and perspectives from an array of media and disciplines.
Source Material	The rubric expects students to be completely original and punishes the use of outside materials for inspiration or use.	The rubric allows for students to consider outside sources, but makes no special note of the process.	The rubric encourages the use of a variety of digital, print, and personal sources.	The rubric encourages the both the use and accreditation of outside sources.
Clarity of Guidelines	The Rubric contains language that is ambiguous, so that the difference between the levels of the rubric is unclear to students and inconsistently applied.	The rubric is expressed in language that is not accessible to students so even if it is clear to the teacher, it is rarely used as a feedback tool.	The rubric guidelines encourage teachers to clearly outline what is expected and the methods by which the students will be evaluated.	The guidelines dictate that evaluation should be made clear to students in a way that fosters continued performance improvement, with the expectation of failure.

Dimension	Developing (1)	Progressing (2)	Proficient (3)	Exemplary (4)
Product	The product requirements are ambiguous (or absent) and differences among performance levels are not clear.	Although a work product is required, there is not objective feedback that leads to improved product development.	The rubric requires the creation of a work product, with objective evaluation of the product based on the rubric.	The rubric requires a work product that can be objectively evaluated, with the feedback on the product used for improvement.
Process	The process requirements are ambiguous and differences among performance levels are not clear.	Process requirements are inconsistent and students have difficulty using the rubric to improve their creative processes.	The rubric has clear process requirements and students can differentiate performance levels based on the rubric.	The rubric evaluates not only the end product, but also evaluates the students through every step of the process, to examine the method as well.
Collaboration	The rubric requires that students work in complete isolation without the aid or feedback of other students or teachers.	The rubric allows for collaborative or group work, but has no guidelines for evaluating the process of collaboration itself and which party was responsible for what.	The rubric requires a portion of the project to be group based, and sets up clear guidelines as to how group collaboration should be utilized.	The rubric sets guidelines on how collaboration should be utilized, with also the expectation of citation individual participation.
Practice and Error	The rubric promotes "one-shot" attempts at performance. The ideal submission is error-free.	The rubric allows for re-drafting work products that are not acceptable on the first attempt.	The rubric requires multiple drafts of work products with students using the rubric to improve performance	The rubric requires multiple drafts and there is clear evidence that students learn from their mistakes. The ideal work is never "error-free" but full of learning that resulted from errors.

Creativity Rubric 1

Criteria/ Creative Thinking Process	Minimal = 1	Basic = 2	Proficient = 3	Advanced = 4	Self Assessment: Rate yourself on each category; Support with examples	Teacher Assessment
Researching: Selection and development of themes, problems, issues, techniques and processes through study, research or exploration	**The student:** Is unable to plan or conduct research without continuous help, therefore selection, development or solution of themes, problems and issues, techniques or processes is entirely dependent on teacher; makes no deliberate attempt to explore appropriate sources.	**The student:** Often self-directed with frequent teacher help; is able to plan and conduct research that leads to selection, development, or solution of a few satisfactory themes, problems, issues, techniques or processes; uses several meaningful sources to gather information; Needs teacher to tell next step in process.	**The student:** Conducts sufficient planning and research enabling selection, development and solution of complex and personal themes, problems, issues, techniques or processes; uses a wide variety of appropriate sources to gather information; works somewhat independently.	**The student:** Demonstrates exemplary ability to plan and conduct in-depth, personal research that results in highly successful solution of complex themes, problems and issues; uses wide variety of sources to gather information; works independently.		
Brainstorming/ Thumbnails	Does not create thumbnails or brainstorming activity.	Brainstorms on separate piece of paper; poorly thought out ideas.	Creates 2 thumbnails or most of brainstorming activity; searches for original ideas.	Creates 3 thumbnails and brainstorming activity of possible ideas that are original in nature – not cliché.		

Criteria/ Creative Thinking Process	**Minimal = 1**	**Basic = 2**	**Proficient = 3**	**Advanced = 4**	**Self Assessment: Rate yourself on each category; Support with examples**	**Teacher Assessment**
Creation/Production: Personalized and expressive approach; intellectual and creative curiosity.	Works in a haphazard manner with little understanding of a successful problem-solving process; requires frequent direction; exhibits ideas that are generally mundane and trivial; very little if any original images used; at times shows a spark of intellectual or creative curiosity.	May work in a personalized and expressive manner, but is occasionally dependent on guidance; develops ideas that are sometimes meaningful or important; little use of original images in work; some manipulation; frequently exhibits an intellectual and creative curiosity that drives work.	Nearly always approaches work in an independent and expressive manner; develops ideas of conceptual importance; inquisitive and willing to explore intellectually and creatively; used mostly original images in work; very original solutions to problem given.	Approaches all work in a highly individualized and expressive manner and is able to direct own process; develops ideas that are conceptually strong and reveal important insights; **all original work used –** drawings and/or photographs; demonstrates a passionate and keen intellectual and creative curiosity toward work.		
Craftsmanship/ Technical Skills: Attention to details of final; Sought new skills to learn through teacher direction or individual needs; Image put together with excellent craftsmanship and technical ability.	Sloppy workmanship; Not really interested in learning new skills; used same old solutions to problems; did not want to learn anything new.	Title/name missing or not original; OK workmanship and craftsmanship; Showed little individual direction to search out solutions to technical problems; waited for teacher to show solution; did not even try to find solution through asking others; just applied filters to make it look different.	Title somewhat well thought out; above average technical abilities demonstrated in image; Good workmanship and craftsmanship; Some individual searching for ways to make image work better; researched answer to technical problem or asked someone; high skill level in work.	Highly crafted image; edges are clean; high quality of workmanship and well constructed; Sought to learn new skills to make work better and to meet goals; Worked independently to research needed skill or worked with others who are skilled in solving that problem; very high skill level work.		

Criteria/ Creative Thinking Process	**Minimal = 1**	**Basic = 2**	**Proficient = 3**	**Advanced = 4**	**Self Assessment: Rate yourself on each category; support your reasons with examples**	**Teacher Assessment**
Presentation: Presentation of work to class.	Makes some attempt to present work in an organized and acceptable manner; has difficulty discussing, reflecting upon and evaluating work including own; unable to identify strengths and weaknesses in own work or other's works; Made inappropriate remarks; Rarely discriminates between degrees of quality in work; rarely makes connection to other content areas and daily life.	Presents work in a cohesive and satisfactory manner; usually able to discuss, reflect upon and evaluate work including his/her own; Sometimes able to identify strengths and weaknesses in own and other's works; Made inappropriate remarks; makes meaningful connections to other content areas and daily life.	Presents and organizes work effectively; discusses, reflects upon and evaluates work; Demonstrates ability to recognize and discuss own strengths and weaknesses as well as to discriminate between varying degrees of quality in work; makes relevant connections to other content areas and daily life; Comments on other's works in an appropriate manner.	Presents work in a well-organized and professional manner; Listened attentively when others presented; Discusses, reflects upon and evaluates work with astute personal insight; demonstrates a clear understanding of own personal development and can easily discriminate between varying degrees of quality in work; makes relevant and multiple connections to other areas of daily life; Comments on other's works in an appropriate manner.		

Collaborative Practice for Creativity Rubric Reviews

Instructions: First, the group should select creativity rubric that they will use for collaborative assessment. We suggest beginning with an anonymously created rubric from Appendix D, E, or F. Only after the group has achieved a high degree of consistency (80% agreement or more), should you then proceed to the evaluation of rubrics in your own school or system.

Please start be working *entirely alone*, without communication with your colleagues. Once everyone in the group has completed Part I, Individual Ratings, then proceed to Part II, Analysis, and Part III, Group Ratings.

Part I – Individual Ratings

Please use the meta-rubric that has been provided to you (or from Appendix x of this book) and evaluate the creativity rubric you have been given on a scale of zero to 4. There are no "+" or "-" grades – just check the category of performance that most closely matches the characteristics of the rubric you are considering.

Dimension	Rating (0-4)	Remarks
1. Research Basis		
2. Multidisciplinary Perspective		
3. Source Material		
4. Clarity of Guidelines		
5. Product		

Dimension	Rating (0-4)	Remarks
6. Process		
7. Collaboration		
8. Practice and Error		
Total Score:		

Part II – Analysis

For each rating, calculate the percentage of agreement among your colleagues. For example, if 5 out of ten colleagues rated a rubric a "3", while 3 rated it a "2" and one each rated it a "1" and a "1", then the highest level of agreement was five out of ten, so enter "50%" in the middle column. Discuss any item where agreement is *less than 80% seek to tether revise the ratings or change the meta-rubric so that, for the use by your faculty, the meta-rubric will have the highest possible consistency.*

Dimension	**Level of Agreement** **Majority score divided by total participants x 100 (up to 100%)**	**Changes in Meta-Rubric For Your School?**
1. Research Basis		
2. Multidisciplinary Perspective		
3. Source Material		
4. Clarity of Guidelines		
5. Product		
6. Process		
7. Collaboration		
8. Practice and Error		
Total Score:		

Part III – Group Ratings after Discussion and Revisions

Dimension	Rating (0-4)	Remarks
1. Research Basis		
2. Multidisciplinary Perspective		
3. Source Material		
4. Clarity of Guidelines		
5. Product		
6. Process		
7. Collaboration		
8. Practice and Error		
Total Score:		

Creativity Rubric 2

Criteria	4	3	2	1	0
Original Thinking	The student explores many avenues to gather resources for the project and incorporates new directions or approaches to the work.	The student explores some avenues to gather resources for the project and incorporates some new directions or approaches to the work along with unoriginal or cliché ideas.	The student explores few avenues to gather resources for the project and incorporates few new approaches to the work along with multiple unoriginal or cliché ideas.	The student uses only one source for the project and does not use original ideas.	The student's ideas are unoriginal and do not attempt to explore different sources.
Preparedness/ Organization	The student comes to class and is consistently prepared, organized, and ready to add to the class discussion.	The student is prepared and organized most of the time and usually adds to class discussion.	The student is sometimes prepared and organized, but often forgets materials and contributes minimally to class discussion.	The student is unprepared and unorganized most of the time and does not contribute to class discussion.	The student is never prepared or organized, and often misses class.
Creativity	The project shows excellent creativity in design.	The project shows average creativity in design.	The project shows moderate creativity in design.	The project shows little creativity in design.	The project shows no creativity at all.
Errors/Mistakes	The student's work contains no errors or mistakes.	The student's work contains few errors or mistakes.	The student's work contains multiple errors or mistakes.	The student's work contains many errors or mistakes.	The student's work is unacceptable and can not be graded.
Effort	Superior effort is recognized.	Average effort is recognized.	Little effort is recognized.	No effort is recognized.	
Process	The student was able to work independently for the entire duration of the project and did not require teacher direction or assistance.	The student was able to work independently for most of the duration of the project and did not require teacher direction or assistance.	The student required teacher direction or assistance on multiple occasions, and was unable to work independently.	The student required teacher direction or assistance for most of the project.	The student needed assistance for the entirety of the project and was unable to complete any portions of the project independently.

Part I – Individual Ratings

Please use the meta-rubric that has been provided to you (or from Appendix x of this book) and evaluate the creativity rubric you have been given on a scale of zero to 4. There are no "+" or "-" grades – just check the category of performance that most closely matches the characteristics of the rubric you are considering.

Dimension	Rating (0-4)	Remarks
1. Research Basis		
2. Multidisciplinary Perspective		
3. Source Material		
4. Clarity of Guidelines		
5. Product		
6. Process		
7. Collaboration		
8. Practice and Error		
Total Score:		

Part II – Analysis

For each rating, calculate the percentage of agreement among your colleagues. For example, if 5 out of ten colleagues rated a rubric a "3", while 3 rated it a "2" and one each rated it a "1" and a "1", then the highest level of agreement was five out of ten, so enter "50%" in the middle column. Discuss any item where agreement is *less than 80% seek to tether revise the ratings or change the meta-rubric so that, for the use by your faculty, the meta-rubric will have the highest possible consistency.*

Dimension	**Level of Agreement** **Majority score divided by total participants x 100 (up to 100%)**	**Changes in Meta-Rubric For Your School?**
1. Research Basis		
2. Multidisciplinary Perspective		
3. Source Material		
4. Clarity of Guidelines		
5. Product		
6. Process		
7. Collaboration		
8. Practice and Error		
Total Score:		

Part III – Group Ratings after Discussion and Revisions

Dimension	Rating (0-4)	Remarks
1. Research Basis		
2. Multidisciplinary Perspective		
3. Source Material		
4. Clarity of Guidelines		
5. Product		
6. Process		
7. Collaboration		
8. Practice and Error		
Total Score:		

Creativity Rubric 3

	Below Standard (1)	Approaching Standard (2)	At Standard (3)	Above Standard (4)
Innovative Thinking, Creativeness, and Problem Solving	Little imaginative engagement with the work as evidenced by the creative thinking dimensions (one or none of the dimensions: fluency, flexibility, innovation, and elaboration); Does not consider alternative approaches to solve the problem or find the best solution. Only able to reformulate a collection of available ideas.	Identify basic knowledge using a creative process within the boundaries of the discipline or field of study, as evidenced by the creative thinking dimensions (two dimensions: fluency, flexibility, innovation and elaboration); Considers and rejects less acceptable approaches to solving problem. Experiments with creating a novel or unique idea, question, or product.	Identify new knowledge using a creative process within the boundaries of the discipline or field of study, as evidenced by the four creative thinking dimensions such as fluency, flexibility, innovation and elaboration; Having selected from among alternatives, develops a logical, consistent plan to solve the problem. Creates a novel or unique idea, question, format, or product.	Identify new knowledge using a creative process beyond the boundaries of the discipline or field of study, as evidenced by the four creative thinking dimensions such as fluency, flexibility, innovation and elaboration; Not only develops a logical, consistent plan to solve problem, but recognizes consequences of solution and can articulate reason for choosing solution. Extends a novel or unique idea, question, format, or product to create new knowledge or knowledge that crosses boundaries.
Sources of Information	Uses only one source to gather information and does not demonstrate any effort to use other types of sources.	Uses only typical sources of information (website, book, article); Does not offer new ideas during discussions.	Finds one or two sources of information that are not typical; Offers new ideas during discussions, but stays within narrow perspectives.	In addition to typical sources, finds unusual ways or places to get information (adult expert, community member, business or organization, literature); Promotes divergent and creative perspectives during discussions.

	Below Standard (1)	Approaching Standard (2)	At Standard (3)	Above Standard (4)
Development of Creative Concept and Context	Inadequate use of research development from creative process to final outcome.	Shows some relevant research and its application from creative process to final outcome.	Shows relevant and effective use of research from creative process to final outcome.	Breadth and depth of creative project; effective judgment from creative process to final outcome.
Revisions	Revisions generally ineffective, disregard much of faculty feedback; excessive revisions necessary.	Somewhat effective revisions that incorporate much of faculty feedback; many revisions necessary.	Mostly effective revisions that incorporate faculty feedback; reasonable amount of revision.	Excellent revisions that incorporate faculty feedback; few revisions necessary.
Originality	Relies on existing models, ideas, or directions; It is not new or unique; Follows rules and conventions; Uses materials and ideas in typical ways.	Has some new ideas or improvements, but some ideas are predictable or conventional; May show a tentative attempt to step outside rules and conventions, or find new uses for common materials or ideas.	The project is new, unique, surprising, and shows a personal touch; May successfully break rules and conventions, or use common materials or ideas in new, clever and surprising ways.	There is clear evidence that the student made an attempt to take risks in trying something new and different, with the realization that failure may occur.

Part I – Individual Ratings

Please use the meta-rubric that has been provided to you (or from Appendix x of this book) and evaluate the creativity rubric you have been given on a scale of zero to 4. There are no "+" or "-" grades – just check the category of performance that most closely matches the characteristics of the rubric you are considering.

Dimension	Rating (0-4)	Remarks
1. Research Basis		
2. Multidisciplinary Perspective		
3. Source Material		
4. Clarity of Guidelines		
5. Product		
6. Process		
7. Collaboration		
8. Practice and Error		
Total Score:		

Part II – Analysis

For each rating, calculate the percentage of agreement among your colleagues. For example, if 5 out of ten colleagues rated a rubric a "3", while 3 rated it a "2" and one each rated it a "1" and a "1", then the highest level of agreement was five out of ten, so enter "50%" in the middle column. Discuss any item where agreement is *less than 80% seek to tether revise the ratings or change the meta-rubric so that, for the use by your faculty, the meta-rubric will have the highest possible consistency.*

Dimension	**Level of Agreement** **Majority score divided by total participants x 100 (up to 100%)**	**Changes in Meta-Rubric For Your School?**
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8. Practice and Error		
Total Score:		

Part III – Group Ratings after Discussion and Revisions

Dimension	Rating (0-4)	Remarks
1. Research Basis		
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3. Source Material		
4. Clarity of Guidelines		
5. Product		
6. Process		
7. Collaboration		
8. Practice and Error		
Total Score:		