



SCALE

Support of Creativity in
A Learning Environment

© Richardson & Mishra 2017

SCALE: Support of Creativity in a Learning Environment

© 2017 Carmen Richardson & Punya Mishra

For more information contact: punya.mishra@asu.edu
or carmen@carmenrichardson.com
or visit punyamishra.com

About the Authors

Carmen Richardson (carmen@carmenrichardson.com) is an Instructional Technology Specialist at Kamehameha Schools Hawai'i, as well as a doctoral candidate in the Educational Psychology and Educational Technology program at Michigan State University. She is interested in teacher professional development, creativity, and educational technology. You can find out more about her by going to carmenrichardson.com.

Dr. Punya Mishra (punya.mishra@asu.edu) is Associate Dean of Scholarship & Innovation and Professor at the Mary Lou Fulton Teachers College, Arizona State University. His research lies at the intersection of education, design, and creativity. He has published over 90 articles and book chapters, and has received over \$7 million in grants. You can find out more about him by going to punyamishra.com

Support of Creativity in a Learning Environment (SCALE)

SCALE (Support of Creativity in Learning Environment) is an instrument developed to assess the ways in which a learning environment supports student creativity.

SCALE is a short, focused, and informal instrument aimed not to evaluate the teacher but rather to gather information about practice (modeled on The Three-Minute Classroom Walk-Through). SCALE seeks to both enrich the research around the design of educational environments that support creativity in students; and to guide practitioners seeking to evaluate and improve learning environments for creativity.

SCALE addresses a key gap in the research. Much of the existing scholarship in the field of creativity has focused on individual, psychological, and/or personality variables, which, while important, offer minimally practical advice to educators. The intentional design of learning environments is profoundly important to supporting the development of creativity.

SCALE measures three different aspects of a learning environment: Learner Engagement; the Physical Environment; and the Learning Climate.

SCALE was developed by Carmen Richardson and Punya Mishra, currently at Michigan State University and Arizona State University, respectively.

The complete process that led to the development of the SCALE instrument can be found in:

Richardson, C., & Mishra, P., (2017). Learning Environments that Support Student Creativity: Developing the SCALE. *Thinking Skills and Creativity*
<https://doi.org/10.1016/j.tsc.2017.11.004>

Key Principles

There are a few key beliefs or principles that underly the design of SCALE. They are:

SCALE illustrates ways to support student creativity. All students have creative potential. In schools, the learning environment plays an integral role in the support of creative potential. As described in more detail below, the SCALE contains research based items that have been empirically shown to support student creativity.

SCALE is non-evaluative in nature. The purpose of this instrument is not to evaluate, but rather to allow a teacher to reflect on what an observer notices about the support of creativity at a certain time.

SCALE is short and informal. It can be completed in one sitting in 10-20 minutes. It is an informal instrument that is used for the benefit of teacher reflection and growth.

Dimensions of SCALE

SCALE measures three different aspects of a learning environment: Learner Engagement; the Physical Environment; and the Learning Climate.

Learner Engagement

Learner Engagement includes the actual tasks that students are involved in. Tasks that support creativity involve active learning and exploration where all members of the environment are seen as co-learners and co-teachers, with an emphasis on the process and not the product. Tasks that are open-ended, involve choice, or focus on authentic problems are more likely to support creativity (Cullingford, 2007). Research has shown that pedagogical practices that are constructivist based support creativity (McWilliam & Dawson, 2008). Inquiry or discovery based learning is a constructivist approach that supports student creativity, especially when tasks are relevant and exciting (Jeffrey & Craft, 2004). Other techniques include giving students choice; designing integrated units; encouraging the expression of ideas through a wide variety of media (Craft, 2001); stimulating student's intrinsic motivation (Peterson & Harrison, 2005); and building in time for exploration and play (Craft, 2001). There is an emphasis in this component on what the learners are actually doing - not what the teacher has planned or hoped the learners will be doing.

Physical Environment

The space of the learning environment itself should be open, containing furniture that is flexible, allowing for multiple spaces in which small groups of students can easily work together (Warner & Myers, 2010). Teachers should have a variety of rich resources and materials readily available for student use (Peterson & Harrison, 2005).

Learning Climate

The relationship between teacher and student, the relationships among students, and the overall atmosphere of a classroom all play an integral role in the support of creativity. An open atmosphere in which students communicate freely, accept and discuss new ideas, trust each other, and support taking risks (Craft, 2001; Esquivel, 1995; Peterson & Harrison, 2005) is an ideal climate for the support of creativity. Creativity tends to flourish when there are opportunities for exploration and when originality is valued (Kozbelt et al., 2010). Creativity can thrive when there is a climate of community, care, and cooperation that emphasizes positive student and teacher relationships.

Scoring the SCALE

0 (No Evidence)	No evidence for the item. The item was not observed.
1 (Minimal Evidence)	Minimal evidence for the item. This may include only one or two students involved in the item or a minimal amount of time spent on the item.
2 - Moderate Evidence	Multiple but not the majority of students are involved. The item is observed for a limited amount of time.
3 - High Evidence	The item is infused throughout the environment with the majority of students involved in or much time spent on the item.

Using the SCALE instrument effectively

Before observations are conducted teachers and observers should be familiar with the items on the instrument. There should be a shared understanding of each component and the items within the component.

Observations should be scheduled for a time when teachers feel they will be supporting student creativity.

After the observation the teacher and observer should engage in a reflective conversation.

During an observation it is fine to talk with students as long as it does not disrupt the lesson.

Support of Creativity in a Learning Environment (SCALE) 1 of 2

SCALE Component	Rating	Evidence/Notes
Physical Environment		
A variety of resources are available and accessible to students.	0 1 2 3	
Examples of student work appear in the space.	0 1 2 3	
A variety of work stations or areas are available to students.	0 1 2 3	
The furniture allows for multiple arrangements and configurations.	0 1 2 3	
Learning Climate		
Students are involved in discussions among themselves, with or without the teacher, that deepen their understanding.	0 1 2 3	
The students are caring, respectful, and value differences.	0 1 2 3	
The teacher is a facilitator, co-learner, explorer, or inquirer with students.	0 1 2 3	
Mistakes, risk-taking, and novel ideas are valued or encouraged.	0 1 2 3	

Support of Creativity in a Learning Environment (SCALE) 2 of 2

SCALE Component	Rating	Evidence/Notes
Learner Engagement		
Students are involved in tasks that are open-ended and/or involve choice.	0 1 2 3	
Students are involved in activities that may include inquiry, project based learning, or interdisciplinary tasks.	0 1 2 3	
Students use multiple perspectives/view-points/ways of knowing or various modes of investigation/problem solving.	0 1 2 3	
Students demonstrate interest in or enthusiasm for the activity beyond being "on task."	0 1 2 3	
Students spend time developing ideas for deeper understanding and/or reflecting on their learning.	0 1 2 3	
Students work at their own pace and/or time is used flexibly.	0 1 2 3	

SCALE

Support of Creativity in a Learning Environment

© 2017

Carmen Richardson
& Punya Mishra

For more information contact or visit:

punya.mishra@asu.edu | carmen@carmenrichardson.com
punyamishra.com | carmenrichardson.com