

A Study of the Emotional Climate in the Classroom

BY KEVIN JOHNSON AND CARL FITZGERALD



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s public school administrators in New Hampshire, much of our time is spent monitoring and improving the instructional and emotional climate in our buildings. If one goes from school to school, the ways in which this is happening are multiple, well meaning, and oftentimes effective. Each school is very different, and as we visit different schools we notice equally different climates. Naturally, the climate in a school is affected by various elements: (a) teachers, (b) parents, (c) community members, (d) physical plant, (e) administrators, (f) students, (g) climate of the country, and (h) other factors. As schools have different climates, so do individual classrooms. The question is, as instructors, how effective are we at developing and implementing positive climates in our classes?

Although we may want to develop an environment that inspires a positive climate, we usually assess ourselves in an intuitive manner. We believe that our teaching practices are effective, and we have qualitative observations to back our beliefs. We have multiple measures to monitor student academic progress. These measures are developed both locally and at the state level. One measure every school in New Hampshire has in common is the New Eng-

land Common Assessment Program (NECAP), soon to be the Common Core State Standard tests. School districts develop and implement district assessment plans. We have more data than we can actually analyze. There has been far less attention paid to the emotional climate of our classrooms and schools. This study is one attempt to begin to develop action-research procedures for classroom teachers to assess their efforts.

As college faculty, we are keenly aware of the academic rigor and assessment that is taking place in our classrooms. It has become increasingly clear that the emotional climate has had far fewer formal assessment activities. This study is meant to demonstrate a method to measure emotional climate in order to assess our progress as a class and to then make improvements as necessary.

The definition used for “emotional climate” comes from the work of Caine, Caine, McClintic, and Klimek (2009) in *The 12 Brain/Mind Learning Principles in Action*. The 12 principles make up the foundation for three interactive elements: emotional climate, instructional climate, and consolidation of learning. The 12 Brain/Mind Learning Principles are:

1. All learning is physiological.
2. The brain/mind is social.
3. The search for meaning is innate.
4. The search for meaning occurs through patterning.
5. Emotions are critical to patterning.
6. The brain/mind processes wholes and parts simultaneously.
7. Learning involves both focused attention and peripheral perception.
8. Learning always involves conscious and unconscious processing.
9. There are at least two approaches to memory: archiving isolated facts and skills, and making sense of experience.
10. Learning is developmental.
11. Complex learning is enhanced by challenge and inhibited by threat associated with helplessness.
12. Each brain is uniquely organized (p. 4).

These principles can be translated into capacities for learning (emotional, instructional, and consolidation). This study was on the four principles that make up the emotional climate, including numbers 2, the brain/mind is social; 3, the search for meaning is innate; 5, emotions are critical to patterning; and 11, complex learning is enhanced by challenge and inhibited by threat associated with helplessness. When these four principles are implemented in positive ways in the classroom setting, a state of relaxed alertness, or optimal emotional state, exists. Relaxed alertness is defined as a state in which students feel safe, sup-

ported personally and academically, believe they are competent, and work with an air of positive confidence (Caine et al., 2009, p. 7). In this state, students want to be challenged and are willing to extend themselves in order to learn important material in meaningful ways.

In order to develop this state of relaxed alertness, we help students develop their skills in four areas. These areas are physiology, self-efficacy, resilience, and self-regulation (Caine et al., 2009). The body, mind, and brain operate as an integrated system. The importance of engaging the body, mind, and brain and the interconnectedness of each is explained by Damasio (1994): (1) The human brain and the rest of the body constitute an indissociable organism and (2) the organism interacts with the environment as an ensemble; the interaction is neither of the body alone nor of the brain alone. Self-efficacy has a powerful effect on motivation. Compared to low-efficacy students, high-efficacy learners accept more challenging tasks, exert more effort, persist longer, use more effective strategies, and generally perform better (Bandura, 1997). Resilience is a learner characteristic that, despite adversity, raises the likelihood of success in school and later in life (Borman & Overman, 2004). Resilient children also expect to succeed and feel they are responsible for their own success (Downey, 2003). Greene and Azevedo (2007) found that self-regulated students take responsibility for their own learning. Bandura (1986) found that students could self-regulate without the use of reinforcers and can see a payoff that would come sometime in the future. Students are guided by their teachers to become physically, emotionally, and intellectually engaged in their education. Instructors guide and assist their students to become active and independent learners. The definitions for relaxed alertness as developed by Caine et al. (2009) are included in Figure 1. These four factors are the basis for the student questionnaire used in this study.

Based on the ideas about relaxed alertness, Caine et al. (2009) have developed ideas about how to create an environment in which students would be more likely to reach that state of mind. Students learn more and remember it longer when they are actively involved in the learning process. Students do better when they engage their brains and their bodies in a learning activity. One might call this total engagement. When the students are using their entire physical system to learn, we believe they are more likely to learn and remember what they have learned. If teachers help their students have confidence in themselves and their abilities to succeed, then we believe students will work more effectively and handle adversity in more positive ways (have positive self-efficacy). If students are engaged, feel confident in their abilities, and are really competent, then we

Figure 1. Definitions for factors of relaxed alertness

FACTOR	DEFINITION
Physiology	All students learn more effectively when involved in experiences that naturally call on the use of their senses, action, movement, and decision making (p. 147)
Self-Efficacy	The innate belief in oneself and one's ability to achieve (p. 25)
Resilience	The ongoing deep capacity to bounce back from failure or setbacks (p. 25)
Self-Regulation	Students believe that they can influence events and have learned how to sustain motivation, set appropriate goals that are attainable and challenging, use appropriate strategies, and manage their time and resources effectively (p. 26)

think they will have the emotional strength to “bounce back” when issues arise. Finally, we believe that if we can teach students to regulate their own work and learning, then they will be in more control of their learning and they will be in better positions to make positive and effective decisions.

Teachers are in charge of the classroom environment. We set the tone, the work, and the interaction patterns for our classes. If we can develop classroom environments in which students feel safe and supported, where they have confidence and feel competent because they can make important decisions about their educational growth and believe they will receive the support they need, then we are more likely to have students function in a state of relaxed alertness. Students will be more likely to view their academic challenges in positive ways and be willing and excited to participate in the learning activities proposed by their instructors.

Participants

This study included a sample of graduate students completing a Master of Education at New England College. This group of 15 students is composed of eight women and seven men, all of whom are planning on becoming teachers. None of these students have held a teaching position at this point in time.

Method

During the four-week period of this study, students were introduced to problem-solving activities in each class in a fun and safe manner. The instructor attempted to support each student in a positive manner and encouraged the students to support and

encourage each other. During the first three weeks of the class, students were asked to participate in kinesthetically based and low-risk problem-solving activities developed to encourage cooperation and relaxed alertness among the students in this class.

During the first week, students engaged in a beanbag name-recognition activity. All students formed a circle with the instructor. The instructor called a student name aloud and tossed the beanbag to that individual. This process continued until all participants were included. Next, a second beanbag was introduced into the game, then a third, a fourth, and a fifth. As the task became increasingly difficult, with multiple bags being tossed at the same time, several bags were dropped and students were instructed to leave them on the floor. A discussion followed around the question, what happens to students who are dropped in our schools? What can we do to make certain a student is never dropped? After brainstorming ideas, the activity continued with a plan that was codeveloped as to how we would not drop any beanbag (student).

In week two, the class participated in a maze-completion activity. In this activity, 25 sheets of construction paper were placed on the floor in five rows of five. A predesignated map was prepared for student completion, getting every student through the maze from one side to the other. Students had to start on the correct piece of paper, move one square forward, sideways, or diagonally, never backward. If the correct square was chosen, the verbal prompt “you are correct, you may continue” would be given and the student would continue until incorrect. If the wrong square was chosen, the word “buzz” was given, and students returned to the line to continue active observation and support. Students were allowed to coach, offer support, and reiterate the pattern verbally to classmates as they completed their way through the maze. Once all students made it through the maze, a discussion followed around the question, how do we get every student through the maze of K–12 schooling?

During the third week of this study, students completed a task that immersed them in another complex experience. They worked in randomly selected groups of three completing a problem-solving activity using three-foot-long lengths of clothesline. Each length had loops tied on each end, large enough to fit over a hand. Two of the three participants placed the ropes over their hands in an interconnected manner. The task was to get out the “knot” they were in, with the third student being observer, supporter, and coach. When the first group solved the problem, each individual was sent to a different group to offer advice and support but not give answers. When each group solved the problem, a discussion followed about the emotional climate in each of the

Figure 2. Relaxed alertness survey

Please read the questions and circle the answer that fits best for you.

3 = "I agree"; 2 = "I kind of agree"; 1 = "I disagree."

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|---|---|---|---|
| 1. While I was participating in this activity, my body felt calm. | 3 | 2 | 1 |
| 2. If I did not understand something or thought I couldn't do a part of the activity, I felt I could ask questions to get help. | 3 | 2 | 1 |
| 3. I stayed engaged in the activity even if I was having a hard time. | 3 | 2 | 1 |
| 4. I had confidence that I could finish the activity in the time given. | 3 | 2 | 1 |

last three weeks, specifically relating it to the components of relaxed alertness. Upon completion of the third task, a questionnaire was completed by each student. There was one question for each component of relaxed alertness: physiology, self-efficacy, resilience, and self-regulation. A three-point response was given using the following criteria: "3" means "I agree"; "2" means "I kind of agree," and "1" means "I disagree." Responses were analyzed using measures of central tendency, specifically the mean. A copy of the survey is provided in Figure 2.

Each question was designed to give information specific to each of the factors of relaxed alertness. This information can be found in Figure 3.

The research question for this study is, after working to create an environment in which students feel cared for and supported, will the immersion into a complex activity display an atmosphere of relaxed alertness? This study attempted to answer that question through the completion of a short questionnaire and teacher observation. The results of the questionnaire are shown in Table 1.

These results are promising for three factors of relaxed alertness. It appears students felt to a high degree positive physiology, self-efficacy, and resilience. They felt to a lesser degree self-regulation.

Discussion

Gaining this information presented an opportunity to actively process with the class. Upon doing so, we were able to co-

Figure 3. Questions and factors for relaxed alertness

QUESTION NUMBER	FACTOR
1	Physiology
2	Self-Efficacy
3	Resilience
4	Self-Regulation

Table 1. Questionnaire results

QUESTION NUMBER	TOTAL	MEAN
1	35	2.33
2	39	2.6
3	40	2.66
4	26	1.73

N=15

develop goals for the next class. Several suggestions that came from our discussion were related to time. Students suggested that the time frame be flexible and contain several reminders throughout the process. It was also suggested that students who correctly completed the task act as mentors for groups still at work. Lastly, it was discussed that time was constantly on their minds—i.e., would there be enough time to finish—and this posed a worry to them. It appears these students were less able to self-regulate their concerns about time but demonstrated the desire to increase their efficacy in this domain.

This unique experience can be looked at in several beneficial ways. First, we have a way to include graduate students in measuring the emotional climate of the classroom based on scientific principles presented by Caine et al. (2009). This process can be refined and improved over time, but it is a start. Second, we have data that we can immediately use with our students to co-develop goals that are designed to improve relaxed alertness in the classroom and therefore the emotional climate in our professional learning communities. Third, we can model effective action research as a component of our classes and enlist students to assist us in this endeavor. Fourth, we can bring our content to life through the incorporation of problem-solving activities. Finally, we can begin to develop realistic ways for teachers to assess their effectiveness in the development of a positive emotional climate in their classrooms. As we present the components of an effective emotional climate, we can take the opportunity to use it in a real-life situation. We believe this is an opportunity to move students from "knowing" content toward "understanding" it.

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- Kevin Johnson is Associate Director for Leadership and Graduate Studies at the Upper Valley Educator's Institute in Lebanon, NH. Carl Fitzgerald is Associate Dean of Graduate Education at New England College in Henniker, NH.*