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Democracy must be born anew in each generation, and education is its midwife.

John Dewey

MISSION STATEMENT

Thinking Classroom serves as an international forum of exchange among teachers, teacher educators, and others interested in promoting democratic teaching practices. The publication encourages professional development, research, and reflection. *Thinking Classroom* features articles that foster learner-centered teaching strategies including critical and creative thinking, active and cooperative learning, and problem solving. The journal also publishes articles about the institutional structures that support these practices.

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ABOUT THE RWCT INTERNATIONAL CONSORTIUM

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Departments

Features

THINKING Classroom

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David J. Klooster and Patricia Bloem

High Expectations in the Learner-Centered Classroom

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We have an exchange student living with us this semester, and after only a month we are already learning to see our own home places through fresh eyes, as she experiences everything for the first time. Our food, our daily schedule, our family habits, our local customs—all of these things are new to her, and so we get to reexamine them ourselves in a new way. It's been especially interesting seeing our large local high school through her eyes. We thought we knew the place fairly well, since our three sons all attended this same school. But our exchange student has helped us to see the place afresh.

One of our most interesting realizations has to do with what teachers expect from students—and what they don't.

Our exchange student comes from a prosperous Western European country, where she attends a secondary school for university-bound students. Her home school is academically selective, fairly small, with around 450 students in 4 grades, and specializes in the teaching and learning of languages. (Besides her mother tongue, she speaks near-flawless English, two other modern European languages passably well, and she's had a year of Latin. That's five languages, and she's only 16 years old.) By contrast, the large suburban high school she attends here has 2400 students, drawn from diverse racial and economic backgrounds. Some of her classmates here live in trailer parks and some in multimillion-dollar waterfront mansions. These students will go in many different directions after high school—some to working class jobs in industry and the service sector, others to elite universities. So, for our exchange student, this is a strikingly different educational world in many ways—physically, socially, economically, and culturally. But what has been most illuminating for us, her educator host parents, has been to see how the teachers' expectations vary according to their students' academic placement and program of study.

Most days she comes home with little or no homework, and no suggestions of how to build on the lessons of the day through independent learning. In contrast to the experience of our 16-year-old son, who is taking demanding Advanced Placement courses in the same high school, and unlike her school back home, where she usually has two or three hours of assignments each night, here she might have just twenty minutes of homework. Are high expectations in this school reserved only for the students who are headed for the most ambitious futures? Some of the work she is assigned seems superficial or formulaic. In her English Reading and Writing class, for example, her assigned book report consisted of just a paragraph of plot summary and then a lengthy arts and crafts project—to create an alternative cover design for the book. She was asked to write a longer paper for another class, but then she was marked down for not following the model provided by the teacher to a T. "I should have just filled in the blanks," she said, "and not tried to create my own paper." Ouch.

Our exchange student's experiences in the high school help us understand more of what is happening on our university campuses as well. In the universities where we teach, we have recently been discussing the results of the National Survey of Student Engagement (NSSE), a large nationwide survey in which students report their own levels of engagement in the academic, co-curricular, and social aspects of university life. The results are often discouraging. Nearly a third of students report that they spend ten hours a week or less doing homework. More than half report that they rarely write more than one draft of a required paper. Most report that they do not engage in conversations about academic topics with fellow students or professors outside of class . In short, the NSSE data reveal that large numbers of university students carry the disengagement they learned in high school along with them into the university world. They still don't spend much time on homework, they don't engage in writing practices that would lead to deep reflection or effective persuasive writing, and they don't acquire the habits of mind that make immersion in the intellectual world of books, theories, ideas, and scholars a rewarding and sustaining activity.

It's not hard to find reasons for students' lack of engagement. The decade-long trend toward nationally mandated curricula and externally imposed teaching methods, the proliferation of high-stakes testing, and the resulting demoralization of teachers have made for tough times in classrooms in many countries around the world. Some commentators have pointed to the competition for students' attention that schools face from the attractions of electronic media. Others have described the hopelessness many students experience in the face of globalization, outsourced jobs, and depressed economies, and their understandable reluctance to throw themselves into schoolwork when they don't have realistic expectations of successful careers. Many of us realize that grade inflation pushes up grades for even mediocre work, and students are led to believe that the ordinary work they do merits extraordinary grades. Readers with a longer-range view might agree with what a teacher in Turkey said to us recently: "Students have a universal aversion to hard work. They take the easiest way out. They always have and they always will. Students were lazy in ancient times, and they are lazy today. Intellectual work is hard work! Who does it if they don't really have to?"

We recently came across a nearly 25-year-old article on teacher efficacy that sheds light on these issues. Writing in *The Journal of Teacher Education*, P. Ashton argues that there are eight dimensions involved in teachers' effective performance:

- A sense of personal accomplishment—the teacher's view that the work is meaningful and important.
- Positive expectations for student behavior and achievement.
- Personal responsibility for student learning—the teacher accepts accountability and shows a willingness to examine his or her own performance.
- Strategies for achieving objectives—the teacher must plan for student learning, set goals, and identify strategies for achieving them.
- Positive affect—the teacher must feel good about teaching, about him- or herself, and about students.
- Sense of control—the teacher must believe he or she can influence student learning.
- Sense of common goals with students—the teacher develops a joint venture with students to achieve goals.
- Democratic decision making—the teacher involves students in making decisions regarding goals and strategies.

How can Ashton's ideas help us understand and respond to our concerns about the current state of low teacher expectations and low student engagement? There are two good lessons for us all in Ashton's list.

First, we can recognize that we are working in a context in which several of these dimensions of teacher efficacy have been badly injured by national education reform movements. Teachers in many places today feel little sense of control: The most important educational decisions about what to teach, how to teach it, and when to teach it have been removed from their control. External accountability requirements and procedures have made individual teachers feel less personally responsible for what students learn and what they don't. And in a demoralized teaching profession, few teachers can maintain positive feelings about the work they are engaged in.

Secondly, Ashton reminds us that ultimately, when the classroom door closes and the teacher is alone with her students—away from the politicians and the headmaster and the inspectors, and the multitude of cultural distractions and contradictions—she still has the power to make a difference in her students' lives. Despite the forces that might make her inclined to assign less, expect less, and shift the responsibility away from herself, the teacher can still involve her students in setting goals and making a plan. The responsibility for learning still ultimately rests with the people in the classroom—the teacher and the students themselves. When the teacher has high expectations for the students, expecting them to grow and learn and progress; when the students have a voice in determining what they want and need to learn, and how they will go about their work; when together they can develop positive attitudes about each other and about their work—then good teaching and learning can happen. All of us know this is true, because somewhere along our own journey, a good teacher gathered us and our fellow students into a joint venture—a venture that defied the forces that threatened at that time and in that place to make our learning irrelevant. Our own good teachers—probably the ones who persuaded us to begin our own careers in education—taught us the crucial lesson:

High expectations, good plans, and shared goals lead to powerful learning.

We leave you with three questions for reflection in your own teaching life:

1. Are you keeping your eyes on the Big Picture, and resisting the temptation to think only about small matters from day to day? We all know our students have a lot to learn, and although they can't learn everything by next week, we need to expect a great deal of them as they move toward the large and long-term goals.
2. Are you demanding enough of your students as they learn the skills that you most want to teach them? Students may resist and complain about hard work, but if you are determined—and optimistic—that students will learn the most important skills, you will have the inner strength to overcome their resistance.
3. Are you demanding enough of your students—first in asking them to join you in setting goals, and then in pushing and guiding them every day to make progress in achieving those goals? Your high expectations are the first step to your students' high achievement.

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Naser Zabeli and Blerim Saqipi

Interactive Teaching Strategies Reduce Inappropriate Student Behavior in Kosovo

Photo from the author's archive

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The context

After half a century of socialism, followed by nearly a decade of unfavorable conditions, Kosovo, in 1999, welcomed broad international support to make the educational changes needed to align its educational system with western standards. International and local educators combined their efforts to reform teaching methodologies, and enable the shift from a very traditional rote memorization system to one that encouraged student-centered, interactive teaching and learning.

Understandably enough, this change in teachers' thinking, as well as in their approach towards teaching, has had a wide range of effects. For example, due to the availability of various professional development opportunities, teachers have come to understand the importance of interactive teaching strategies because they have directly experienced the positive impact of these strategies on student learning.

Through our own experience in teacher education, more specifically in delivering and implementing the learner-centered Reading and Writing for Critical Thinking program, as well as other education projects, we have witnessed this shift in teachers' thinking, and have observed first-hand how interactive teaching strategies enhance students' critical thinking skills.

However, the implications of these interactive strategies in the classroom warrant further exploration. For example, having students work together on projects may create more "noise"—working noise. In traditional classrooms, noise of any type was considered unacceptable. So, the question arises, how do teachers respond to such noise, and to other student behaviors previously considered unacceptable in their classrooms?

Research questions and hypothesis

Interactive teaching and learning are, of course, not direct strategies for reducing inappropriate student behavior; they are approaches to teaching aimed at facilitating and supporting student learning. However, it is worth asking whether an approach that promotes cooperative learning might not also have a positive impact on student behavior, when compared to traditional methodologies where the teacher spends the whole time at the front of the class lecturing. For instance, some experts suggest that cooperative learning "can be used as a strategy for involving some students whose behavior presents a problem" (Cooper, 1999, p. 303). Consequently, we wondered whether these new teaching approaches might result in a reconsideration of student behaviors considered to be inappropriate in traditional classrooms.

The purpose of our research was to examine whether interactive teaching strategies reduce inappropriate student behavior, and that became our guiding research question. We also posed two sub-questions:

- In what ways do interactive teaching strategies help to reduce inappropriate student behavior?

- Do interactive teaching strategies change teachers' perceptions about the behaviors of their students?

Research methodology

We used both a focus group and a survey of teachers to collect data for our research. A convenience sample of seven teachers was involved in the focus group. We wanted to involve teachers who had attended training on interactive teaching strategies, and who lived in town (no rural areas were represented in our sample).

The purpose of the focus group was to determine what the teachers considered to be inappropriate student behavior and how they dealt with it. The group met for two hours to discuss questions that included: What student behavior do you consider inappropriate ? Why do you think this behavior happens? What strategies do you use to deal with this kind of behavior? What teaching techniques do you use and do they help to reduce such behavior?

The focus group discussions were recorded electronically and transcribed for analysis. Responses were then grouped into categories and examined for patterns.

A stratified, convenience sample was used for the teacher survey. We wanted to involve teachers who had attended training on interactive strategies, and also to have representation from the different regions where this training was conducted. Participants would be those considered change agents—people who sought out training and who were making changes in the way they teach. Only teachers from urban areas took part. Three hundred surveys were distributed, and 257 useable surveys were returned. The responses were analyzed by calculating percentages. The following questions were asked in the survey:

- Compared with traditional teaching techniques, do you think that interactive teaching strategies contribute to the reduction of inappropriate student behavior?
- Do you think that interactive teaching techniques provide more time and opportunity to closely supervise students with behavior problems?

More specific questions, such as "Does the RWCT approach help reduce inappropriate student behavior?" were also included, and the survey ended with an open-ended question asking teachers to describe how they deal with inappropriate student behavior, and to give examples.

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Findings and discussion

"Cooperative learning can be defined as a way of organizing instruction that involves students working to help one another learn" (Shevin, 1994, p. 183). However, many teachers believe that they are implementing cooperative learning when, in fact, they are only putting students in groups. Cooperation is much more than being physically near other students, discussing material with other students, helping other students, or sharing materials with other students, although each one of these characteristics is important to cooperative learning (Johnson & Johnson, 1998, p. 75).

Cooperative learning includes four basic characteristics: the student is more *interdependent; face-to-face interactions* occur among students in small groups; every student assumes individual *responsibility*; and students build their *interpersonal skills* (Elliott & Travers, 1996).

It is worth noting here that noise (students talking with each other) in the classroom, as well as other distracting student behaviors (such as getting up from one's desk), would be considered behavioral infractions in the context of traditional teaching. However, with the current trends towards learner-centered teaching, we were curious as to whether such "inappropriate" student behavior would be regarded and treated differently.

In traditional teaching, with the teacher as the focus of attention, classrooms are not noisy. In the Kosovar context, noise was—and still is—considered to be detrimental to order in the classroom. In Kosovo, and elsewhere, "traditional classrooms seem more like ceremonial places where students sit in rows like spectators, while the teacher sits in front as a mayor or a priest." (Temple, et al., 2006, p. 7).

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Teachers involved in the focus group confirmed that when they were applying traditional teaching techniques, inappropriate student behaviors included "getting up from one's desk, moving chairs, talking to others—in other words, noise that breaks the relative calm in the classroom." In contrast, when teachers apply interactive teaching techniques, they do not consider noise to be a disturbance so long as it results from the work in the classroom. One of the teachers commented, "I am now used to this 'noise,' and I do not mind it as I used to."

Application of interactive techniques does appear to change teachers' perceptions of what is considered to be inappropriate behavior. Our focus group discussions suggested that, in the context of the new approaches, ordinary discussions are not considered a disturbance of order. They are "working noise." Inappropriate behavior is when students "verbally provoke others, offend others, defy authority for no reason, tease others or attack them physically, argue with no consideration for others, move about wildly, speak loudly and incessantly about things unrelated to the topic." These statements clearly show the difference between the traditional lecture class, where any noise is considered a disturbance and would even be physically punished, and the modern interactive class, where engaged student talk is no longer regarded as a disruption.

Survey respondents answered as follows to the question, "Do you think that interactive teaching strategies compared to traditional teaching techniques contribute to the reduction or improvement of inappropriate student behavior?"

Response	Number of respondents	Percentage
A. Very much	69	26.85%
B. Considerably	77	29.97%
C. Somewhat	98	38.13%
D. A little	8	3.11%
E. Not at all	5	1.94%

Although the interactive teaching strategies, as stated earlier, are primarily meant for facilitating and supporting student learning and are not direct techniques for reducing inappropriate student behavior, research suggests that these techniques at least provide time and opportunity for the teacher to supervise the class more closely and stay closer to students with behavior problems. Teachers responded as follows to the question, "Do you think that interactive teaching techniques provide more time and opportunity to closely supervise students with behavior problems?"

Response	Number of respondents	Percentage
A. Yes	230	89.49%
B. No	17	6.62%
C. Don't know	10	3.89%

As the above figures show, interactive teaching techniques provide more time and opportunity for teachers to deal with student behavior. This finding was also verified by the focus group discussions. When they applied Reading and Writing for Critical Thinking strategies, the teachers reported they were both physically and emotionally closer to the students and thus better able to manage student behavior.

In response to the open-ended question in the questionnaire, "How does RWCT approach help you deal with inappropriate student behavior (give examples from

your classroom)?" the teachers suggested that:

- *[The new strategies]* fulfill the different needs of different students through group work and cooperative learning.
- Students themselves have the chance to react to inappropriate behavior by their peers.
- Students help one another learn, including those with behavior problems.
- A warmer environment is created, where everybody feels comfortable.

Alberto and Troutman (1999) suggest that those best positioned to manage student behavior are the students themselves. The importance of student interaction thus is clearly recognized.

The data from the focus group show that in an interactive classroom, it is extreme distractions that are viewed as inappropriate, behaviors such as speaking too loudly, interfering with others' work, unnecessary movement, etc.

Teachers in the focus group reported that they continue to use traditional methods to improve behaviour such as individual counseling, discussions with parents, and consultations with the director and others who might be of assistance. They also agreed that interactive teaching techniques can be considered as supportive strategies for reducing inappropriate student behavior.

One of the teachers commented, "by using activities that encourage the students to discuss in groups, I meet the needs of the students to speak, but in this case what they are saying is related to the topic and is not just socializing." Another teacher noted, "I assign students responsibilities within the group. The students who cause problems in the classroom I very often assign to be the leaders of their groups, and by doing this I make these students more responsible. In these circumstances, the student is focused on how s/he is going to present the work of the group, rather than on making problems." Another teacher said that, "compared to the system I used before, with children sitting in orderly rows—and those with behavior problems usually sitting at the back—now when I organize group work I try to make sure that I do not put the students with inappropriate behaviors in the same group. I have four or five students with behavior that needs managing in my classroom, and I distribute them in different groups. That way the chances are lower that they will cause problems."

Apart from these advantages, another teacher said, "since I involve them in different activities, I now have more opportunities to work with those students individually and directly. I [can also] approach the group that these students are in and *my* physical presence near the group causes these students to focus on the assignment rather than on teasing others." Sonnier-York and Stanford (2002) suggest that cooperative learning fosters student positive group interdependence and a focus on *we* rather than *me*. Burron, James, and Ambrosio (1993) perceived cooperative learning as a strategy to help students improve both intellectual and social skills. Participating in cooperative learning in the classroom appears to make students feel they are part of the group, and increases the likelihood that all students get the attention they need.

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Teachers in the focus group confirmed that RWCT techniques such as brainstorming, reciprocal teaching, discussion network, etc., fostered the active involvement of students in the learning process. The pair and group work activities required reading and discussing, analyzing problems, writing and presenting, etc. Among other things, this cooperative activity increases students' responsibility, not only in relation to themselves but also in relation to the others. Thus the student does not consider himself/herself only as an individual, but also as part of a group. One of the teachers explicitly commented on the difference these activities made in the atmosphere of the class, observing that "interaction between students creates a warm climate in the classroom."

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Conclusions

There seems to be considerable agreement among our participants that the use of interactive teaching strategies can play a role in reducing inappropriate student behaviors. These strategies provide the opportunity for all students of different levels, and with different learning styles, to contribute to each other's learning. This way of teaching creates a learning environment where everyone feels safe and comfortable; furthermore, students feel that they can learn at their own pace and in their own style.

Still open to question and further investigation is whether the use of interactive teaching approaches also influences teachers' perceptions of what is—and what is not—considered to be inappropriate student behavior.

When different interactive teaching techniques are applied, different "students' basic needs are met, [and] the students feel accepted within the group," stated one of the teachers in the focus group. Another teacher remarked, "some students find it difficult to stay in one place— they want to move around, [and] talk—and interactive teaching meets these specific needs".

"When the behavior of one student is problematic, the best approach for the teacher is not to stop and correct such a behavior, but move on to the next activity as planned" (Rapti, 2004, p. 63). Students will be impressed by the teacher's reaction, and at the same time they will get the attention they need through the interactive strategies elaborated earlier. The noise and problematic behavior will be thus merged into the routine classroom dynamics, and as such will not be deemed important or destructive.

This research has examined only what teachers consider to be inappropriate behavior. Even though analysis of the data from the focus group shows that speaking loudly and getting out of one's seat without good reason are still considered inappropriate behaviors, future research needs to examine the specifics of group work and interactive learning that would create noise as part of the work, and the degree of flexibility granted students to leave their desks as part of this way of working in the classroom. For example, it might be of interest to study students who have been diagnosed as hyperactive in the context of these interactive classrooms, to see whether the more relaxed environment is beneficial to them.

Our data confirm that applying interactive teaching strategies gives more time and opportunity for teachers to deal with student behavior. Teachers report being emotionally closer to their students as a result of the way the work is structured; and communication, cooperation, engagement, and involvement in the task are enhanced for all students, including those with behavior problems. All students feel that they are part of the class, and of the learning that takes place. In the Kosovar context these recent developments have caused a cultural shift in how teachers perceive teaching in general and students in particular.

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Katherine Evans, Kathy Glenn, and Jessica Lester

A Transformative Journey: Theoretical Foundations for an Integrative Approach to Teaching

Photos from the authors' archives

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A dilapidated school building sends a message filled with despair. How can anyone inspire children to love learning in such a place? As we walk down the gloomy corridors of the school, we see classrooms filled with silence and predictable order. However, in one of the classrooms the sounds of excited children can be heard. Peering into the window of this classroom, we see what appears to be chaos. Where is the teacher? Why are the kids not sitting quietly in their desks? Who is in charge here? Surrounded by a small group of attentive children who are engaged in a discussion about how their writing can impact their community sits Ms. Garcia, a fifth-grade language arts teacher. A smile lights up her face as she looks about her classroom. She knows that this is not a place of chaos, but of focused learning. It has not been easy getting to this place, but today as she watches Marie and Matthew working together to construct a persuasive essay about recycling, her love for learning and for reaching all children is affirmed. As she notices the dynamics of her classroom, Ms. Garcia remembers what it was like before she began this transformative journey.

While the tendency in the field of teacher education has been to compartmentalize theories of learning and teaching, an integrative approach—bringing together valuable principles from behavioral, social cognitive, and social constructivism—is needed (Ormrod, 1998). New teachers often experience incongruity between what they learn in their university courses and their actual classroom practices (Grossman, Smagorinsky, & Valencia, 1999). By focusing on the big ideas that are common across theories, both new and seasoned teachers can select principles that promote a holistic way of teaching. In this paper, we explore key characteristics of behavioral theories of learning, social cognitive theory, and social constructivism in the context of a fifth-grade classroom. We represent the development of a teacher committed to lifelong learning through a case study reflecting the combined experiences of the authors. Follow Ms. Garcia as she reflects upon the journey to improve her instructional practice by reconstructing the art of teaching on theoretical foundations. Her development is tracked through a narrative description in which she explores characteristics of the major theories of learning.

Ms. Garcia is in her sixth year of teaching fifth-grade language arts in an inner city school. Her class consists of 27 students, seven of whom are receiving some form of special education. Of these seven, two students have been diagnosed with Attention Deficit Hyperactivity Disorder and five have been diagnosed with some form of learning disability. Ms. Garcia received her teaching credentials from a university that is recognized for its outstanding program in Applied Behavioral Analysis. Thanks to her exceptional evaluations in the areas of classroom management, lesson planning, and professional collaboration, she was recruited by a local inner city school administrator.

During her fifth year of teaching, her optimism began to wane. While she remained committed to her students and to the teaching profession, she was frustrated with her lack of success in helping them to think independently and find meaning in the learning process. Ms. Garcia began her sixth year of teaching with a desire to make whatever changes were necessary to reach all of her students.

Ms. Garcia has closely aligned her curricular decisions with the U.S. national language arts standard, *engaging students in the writing process.* As you enter into her mind, thoughtfully consider her professional development in light of the theoretical integration of behaviorism, social cognitive theory, and social constructivism (Ormrod, 1998).

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Meet Ms. Garcia: In her own words...

What an amazing journey it has been. I can hardly believe how much my teaching has changed over the course of this year. When thinking about the dynamics in my classroom and the frustration that I felt in the past, I cannot believe what difference a year has made.

Coming from a teacher education program that emphasized behavioral practices, I recognized the value of providing structure, order, and predictability for my students. This structure resulted in a feeling of safety because my students always knew what to expect when they walked through my classroom door.[1] In years past, many of my students have said that they felt at home in my classroom. I remember the day when Joey accidentally called me "Mom" and told me he wished he could be in my classroom all day long.

I also had an integral system of reinforcement to encourage the behaviors I hoped to see. Throughout each class, I walked around the room giving "tickets" that could be exchanged for five minutes of free time. I praised students who were engaged in on-task behaviors. But some of my students never seemed to understand what on-task behavior meant. Honestly, Matthew and Willy drove me crazy. They were always poking each other with pencils and throwing paper wads at others. Their unacceptable behaviors left me with only one choice. They broke the rules, they lost a ticket![2] I so wanted both of them to stop misbehaving, so they would have a chance to learn.

In September, when we were starting a unit on informative essays, I not only considered the national standard, *engaging students in the writing process*, but also the target behaviors that I desired in my classroom. My goal was to improve my students' writing skills by focusing on observable and measurable behaviors related to writing an informative essay, such as including an introduction, conclusion, transitions, and thesis statements. As I designed lessons that sequentially led my students to increasingly complex behaviors (Ashman & Conway, 1996), I saw many of my students' writing skills progress from complex sentences to well-developed paragraphs.

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Over the course of several weeks, I divided the task of writing an essay into small and manageable segments (Grobecker, 1999) so that my students didn't feel overwhelmed. My lectures[3] were fast paced (Kerr & Nelson, 2003), allowing me to efficiently discuss and demonstrate the stages of writing an informative essay. I closely followed a scripted format, while providing my students with an opportunity for repetition and review until they reached mastery. I encouraged students to compare their essays to other student essays that I deemed superior.[4] Because I could see some of my students' writing improving, I believed that they were learning.

Based on my previous training, I knew that the use of reinforcers could increase or decrease the likelihood of students' continued improvement. When I graded students' essays, using a checklist that focused on semantics, syntax, coherency of ideas, and presentation, I looked to see if the writers had made measurable progress in comparison to their first essays, giving bonus points for such improvement. While this structured approach helped me understand certain aspects of my students' abilities, there were some students who had strengths that were not reflected on my checklist. Was it fair to assume that all of my students possessed the same strengths? Could I really measure their writing using a standard checklist? Was it realistic to expect that all of my students would follow the same route to achieve the benchmarks of writing?

Limitations of the behavioral approach

According to behavioral theories, all of my students' behaviors were supposedly measurable (Ashman & Conway, 1997). Nevertheless, there were times when I found that I could not put a value on certain features of my students' work. It seemed that the creative aspects of some of their work were not spelled out on the checklist. For example, I often noticed how easily Marie used creative language in her writing, yet she had great difficulties presenting ideas coherently and attending to grammar. Evidently there were aspects of my students' writing that could not easily be measured. As I continued thinking about the drawbacks of solely using principles drawn from behavioral theories, I was encouraged to discover that even though behaviorists have aimed to explain learning in terms of observable phenomena in the environment, some suggest that the "environmental context does not tell the whole story" (Williams, 1999). In my classroom, the untold parts of the story seemed to be affecting not only the writing activities, but also classroom management and motivation.

I was frustrated with my classroom reward system because it seemed that my students' intrinsic motivation decreased in

[1] This is an example of classical conditioning, which happens when an individual learns to produce an involuntary emotional or physiological response similar to an instinctive or reflexive response. Feelings of happiness, safety and warmth associated with a particular environment (i.e., classroom) may be classically conditioned (Eggen & Kauchak, 2007, p. 165).

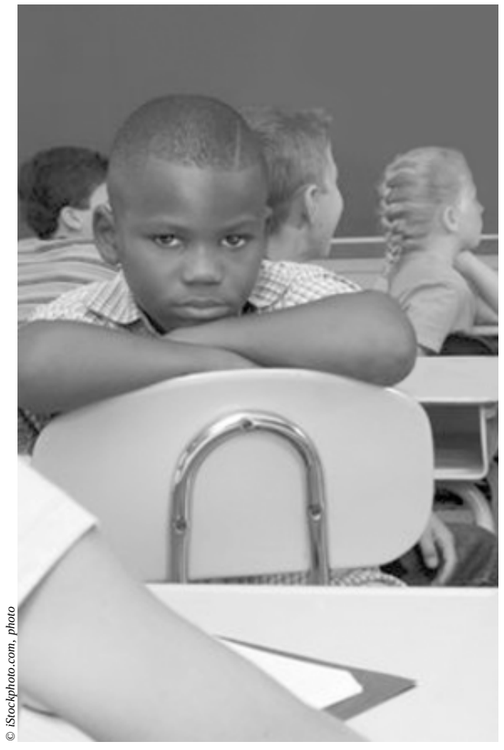
[2] One of the principles of behavioral practices suggests that removal of a reward (i.e., withdrawal of the ticket) is more beneficial than presentation of a punishment (Eggen & Kauchak, 2007).

[3] In this example, direct instruction follows the behaviorist approach of a well-defined structure while breaking skills into specific steps. This method has been found to be useful when teaching some skills (Eggen & Kauchak, 2007).

[4] Allowing students to compare their essays to more developed essays is believed to promote generalization and discrimination. Generalization occurs when similar stimuli elicit identical responses, whereas discrimination occurs when similar stimuli elicit different responses (Eggen & Kauchak, 2007).

response to what I had thought was a great reward. Over time, students seemed to go from working for the sake of learning to working for the "goods," which in this case were those tickets. I longed for my students to take control of their own thinking. It seemed that I was serving as the voice of conscience, sitting on my students' shoulders and reminding them endlessly to regulate their behaviors and check their thinking.

Although many supporters of behavioral practices would suggest that I should not be overly concerned with the reasons behind my students' behaviors, but simply the occurrence of the behaviors (Ashman & Conway, 1997), I also wanted to know how my students' beliefs and ways of thinking affected our classroom. These concerns lingered as I prepared to extend our writing activities. I was not satisfied with the current culture of my classroom. My students were not really *engaged* in the learning process. They were completing the tasks, but their involvement seemed to be only from the neck up. This is not why I became a teacher!



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Ms. Garcia meets social cognitive theory

Strolling down the halls of my school one day, I decided to stop and observe the classroom of a colleague, Lisa. As I looked into Lisa's room and saw that she had her math students' desks arranged in groups of four, I was quite surprised to observe that all the students seemed engaged and on-task. In the past when I had attempted to design lessons around group work, my students' behaviors were out of control, leading me to end the activity. I finally abandoned my attempts at small-group work altogether. In the teacher's lounge after school that day, I asked Lisa how she was able to conduct small-group activities successfully. She smiled and said, "It's not easy, but it is possible. You have to create a climate where learning is the goal and students feel safe to work with peers who may have different strengths." She also mentioned that she paired her higher ability students with underachieving students so that they could act as peer tutors. Lisa said that all of her students had a desire to master the material, so they typically stayed on-task.

When Lisa mentioned Albert Bandura's social cognitive theory, I was immediately struck by the terms *social* and *cognitive*. I thought that studying social cognitive theory might alleviate some of my frustrations. Although the idea that teaching and learning were social activities occurring between teachers, students, and peers (Kim & Baylor, 2006) was somewhat foreign and slightly daunting, I knew it was time for me to make the transition from thinking of the classroom as *mine* to thinking of it as *ours*. By no means did I intend to eliminate the positive aspects of my behavioral practices; I simply knew they were incomplete on their own. This was a new challenge, but I'm a life-long learner. As I began to investigate the ideas behind social cognitive theory, I welcomed the opportunity to grow.

As I began to research social cognitive theory, key principles emerged that led me to alter some of my instructional practices. First was the role of observational learning, the idea that students alter their own behavior as a result of observing the behavior of others (Bandura, 1986). I had sensed that there was a social aspect to learning that was missing from my behavioral approach, and I also knew that I had grown in my own practice by watching

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fellow teachers with whom I worked. As I planned our next writing activity, I intended to provide opportunities for students to learn from their peers, as well as through direct instruction. Furthermore, I wanted to move past having to continually give my students rewards in exchange for completion of their assignments. I wanted them to desire to learn and to regulate their own behavior without extrinsic rewards. Bandura's theory gave me some ideas for helping my students develop this self-regulation while concurrently building intrinsic motivation.

As I continued researching, I noticed repeated references to the concept of *self-efficacy* (Bandura, 1986; Fetsco & McClure, 2005). Over the past five years, I had noticed that many of my underachieving students often made self-defeating statements such as, "I'll never be able to do this, Ms. Garcia" or "I'm just not a good writer." These feelings of low self-efficacy had to be addressed if I was going to reach all of my students. So, without sacrificing the effective aspects of the behaviorism, I added some new dimensions to my instruction. I began to look forward to this next writing assignment, and I felt hopeful about the learner outcomes.

The language arts standard of *engaging students in the writing process* remained the focus of my instruction, but this time the word *engaging* stood out to me. When I considered my objectives, I realized I was still focused on the behavior of writing, for which I did not want to lower my expectations. I was still looking for a strong introduction and conclusion, transition sentences, and thesis statements, but I was also looking for creativity and individuality. I wanted my students to be intrinsically motivated by the opportunity to write. Therefore, I chose a persuasive essay as the focus of instruction and allowed my students to choose the specific topic.[5] Furthermore, the students kept personal journals of their progress throughout the writing process. Five to ten minutes at the end of each class session was devoted to journaling ideas about their own feelings of success and what they had learned about writing.[6] I believed this process would increase their intrinsic motivation as well as build self-regulation.

In order to promote social learning, I arranged the desks in groups of four with the desktops coming together to form a table. Each group included students with varying writing strengths and weaknesses. Rather than a rigidly scripted, direct approach to instruction, I gave my students many opportunities to discuss their topics with their peers as they generated ideas. When a student demonstrated a particular writing skill, I read a section of his paper aloud and brought attention to the skill he had demonstrated. This was especially effective when that student was a well-respected peer.[7]

Throughout the writing process, I combined direct instruction with small-group activities that expanded and individualized the whole-group instruction.

[5] Relating instruction to personally relevant topics and giving students a sense of autonomy promotes intrinsic motivation (Eggen & Kauchak, 2007).

[6] Self-reflection is one way to promote self-regulation. Bandura established a strong link between metacognition and self-regulation (Fetsco & McClure, 2005).

[7] When choosing models, it has been suggested that the effectiveness of the model is dependent upon three perceived characteristics: status, similarity, and competence (Eggen & Kauchak, 2007).

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I no longer gave tickets as reinforcement for appropriate behavior, yet I continued to verbally praise students who were working diligently. Furthermore, I emphasized improved writing skills and hard work in order to build self-regulation. When students were working effectively with their groups, I publicly acknowledged this behavior in order to model and reinforce appropriate cooperative learning behaviors.

For example, in a lesson on transition sentences, I maintained structure and control by giving specific instructions and writing several transition statements on the board, but then I had the students work with partners to develop transition statements for their individual papers. The stronger writers were able to model good transitions for the weaker writers. It was amazing to see how this process helped both groups of students![8]

In the course of the unit on writing persuasive essays, I devoted some instructional time to the explicit development of self-regulation. By making students aware of their own development, I encouraged them to take responsibility for different aspects of their writing or their behavior.[9] I guided my students to think about their thinking, and encouraged them to raise the bar for their own writing performance. To foster metacognition,[10] I continually encouraged students to record their thoughts in their journals.

In order to further build intrinsic motivation, I knew I needed to address the issue of self-efficacy.[11] One component of building self-efficacy lies in the development of learning skills (Schunk, 2000); however, it is important that students be made aware of their improved development. So, through their journal writing, I encouraged them to make special notes about how they were improving their writing skills. Additionally, during group work, I made sure to accentuate each student's strengths.[12] I also intensified my effort to recognize and affirm the improved writing skills of those students who had previously expressed a lower self-efficacy.

To assess their essays, I considered my overall objectives. I wanted to maintain high standards for semantics, syntax, coherency of ideas, and presentation. However, in order to give students more autonomy, I chose to use a rubric rather than a checklist.[13] Students received the rubric prior to beginning the assignment and were encouraged to refer to the rubric throughout the writing process. When the essays were finished, I had the students complete a self-assessment using the rubric (Bransford, et. al, 2006), and also conduct peer assessments on the other students in their small group. Finally, I assessed their work using the same rubric.

The unit on persuasive essays brought about positive changes in the class. I began to see improvement in my students' self-regulation; the journals fostered student reflection about their writing and their self-efficacy. As encouraged as I was, I knew that I had only scratched the surface of developing self-regulation in my students. I questioned whether self-regulation was something that I could actually teach, as opposed to something that arose from within the students. Could students be given even more autonomy in their academic pursuits? At what point did I need to step back and let them make their own choices?

Limitations within the social-cognitive approach

While it was encouraging to see my students working in small groups, I believed that there were other areas where social learning could enhance my instructional practices. Another issue that troubled me was my continued emphasis on direct instruction and the focus on me, the teacher, as the expert. Was it possible that I had underestimated their pre-existing knowledge? When students discussed their ideas within their groups, I sensed that they were highly motivated and active in the learning process. However, their motivation seemed to decrease when they worked independently. I was concerned about what might happen with my students when I was no longer present to facilitate their social learning experiences. Social cognitive theory had provided me with several principles that appeared to enhance my instructional practices, but questions still remained. I knew that I needed to do additional research related to social learning and the impact of students' existing knowledge on current learning. I knew that the answers must be out there; I simply needed to continue learning.

Ms. Garcia meets social constructivism

At a teacher professional development session, I was introduced to a new curriculum based on Lev Vygotsky's thoughts relating to the co-construction of knowledge within social interactions. This constructivist framework emphasized that through cooperative learning, students modify their thinking based on social interactions. In social constructivism I discovered principles that addressed some of my unanswered questions regarding productive learning environments. I began to see the value of tapping into my students' prior knowledge, while allowing them to engage in social interactions that fostered deeper thinking (King, 1997). These insights enabled me to create an environment where students found greater autonomy and success.

As I again reviewed the standard, *engaging students in the writing process*, the word process caught my attention. My goal as I prepared the next unit was to increase the students' capacity to think in a critical and reflective manner as they advanced through the writing and editing process. I began this writing activity with

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[8] According to Spencer Kagan (1994), when students of varied ability levels work together, both the one being tutored and the one doing the tutoring benefit. The more knowledgeable peer gains a deeper understanding of the concept and develops higher levels of self-efficacy.

[9] Schunk insists that self-regulation skills should be explicitly taught to students through teacher directed instruction and questions such as "What do I already know that will help me be successful?" or "What can I do to make this task more manageable?" (Schunk, 2000).

[10] Metacognition refers to "thoughts about one's cognitive activities . . . how people organize, monitor, and regulate their cognitive processes in efforts to deal effectively with their environment" (Bandura, 1986, p. 125).

[11] Williams (1997) found a statistically significant relationship between affective characteristics, such as self-efficacy, and student self-regulation. Furthermore, Bandura attributes high self-efficacy to improved motivation, cognitive functioning, and overall social and emotional health (Bandura, 1986).

[12] Schunk recommends grouping students with respect to relative strengths within the writing process. For example, maybe one student struggles with composing complete sentences, but demonstrates creativity and original thought. By pairing him with students who are less creative, his relative strengths increase his own sense of personal efficacy (Schunk, 2000).

[13] Students must be taught how to complete self-assessments effectively, but the result is increased self-regulation and higher levels of intrinsic motivation (Fetsco & McClure, 2005; Eggen & Kauchak, 2007).

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small-group discussions; students worked in groups of three to establish the focus of a collective essay. I hoped to draw my students in by allowing them to make choices regarding their essay topics. I believed that if their interests were viewed as valuable, they would create a group essay that was meaningful to all the group members. This meaningfulness, in combination with social interaction, seemed to create a sense of ownership concerning their work.

All students were actively engaged, and all were accountable for the learning of others in their group as well as their own learning. I encouraged the students to consider their individual aptitudes in choosing a role that would best serve the group. For example, a student with advanced computer skills could serve as the "researcher;" the more goal-oriented student might serve as the "timekeeper." Group members sought to assist one another in the process of refining their work. This type of collaboration helped the students to discover skills they already possessed, but perhaps had not fully recognized or utilized (O'Donnell, 2006). Although I was available to discuss topics of interest with each group, my role in the classroom was now that of a facilitator of learning, providing mediation when the need arose. I continually assessed student progress in order to provide support to the learners as they advanced through their zone of proximal development.[14] I also worked with each group to assist them in *scaffolding* for one another (O'Donnell, 2006) through the practice of asking questions rather than simply giving answers. When I observed that a student was struggling, I was careful not to co-opt the student's learning, providing only the assistance needed at the time (Greenberg, 2000).

I recognized that when I focused on understanding, instead of on performance alone, my students truly began to engage in the process of writing. In the past I had viewed assessment solely as a tool for summative evaluation.[15] After immersing myself in social constructivism, I sought more authentic means of assessing my students, such as portfolios, oral presentations, and "published" works. Therefore, each group's collective essay was published and placed in the school library for other students and teachers to enjoy. Even though I had attempted to place greater emphasis on the process, I discovered that their final products were wonderful! I was beginning to remember why I loved teaching!

Ms. Garcia's current reflections

As I sit and reflect back on this past year, I can only smile and be grateful. The last year has brought changes in my classroom beyond anything I ever expected. As I have tried to incorporate principles from behavioral, social-cognitive, and social constructivist theories, a more productive and process-oriented classroom has emerged. I realize that although it was initially challenging to make some of these changes, our classroom truly has become a community of learners. My students have taken ownership of not only their own learning, but also one another's learning. Now when one of my students does not fully understand a concept, he will first consult with a classmate, as opposed to relying solely on me. Our classroom is no longer the same quiet and pristine corner of the school that it once was; instead, it is filled with sounds of students justifying their positions and opinions, joint problem solving, and active learning (King, 1997). It is not the sound of chaos you hear as you walk down the hall, but the sound of organized and focused interaction.

[14] Vygotsky's zone of proximal development can be defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86).

[15] Summative evaluation refers to assessing after instruction for the purpose of determining a final grade (Eggen & Kauchak, 2007).

Conclusion

The preceding narrative depicts a reflective practitioner as she seeks to build a more personally meaningful approach to teaching. As Ormrod (1998) suggests, it is important for educators to move beyond a compartmentalized view of teaching and learning in pursuit of best practices that transcend any particular theory. By adopting an integrative approach that includes behaviorism, social cognitive theory, and social constructivism, educators are empowered to better meet the needs of all learners.

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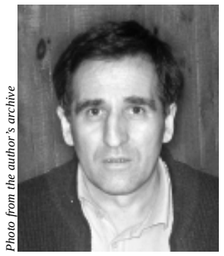
Nikolai Stepanov

Critical Thinking Tools and Techniques for Illuminating Literary Texts



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Nikolai Stepanov *is a teacher of Russian language and literature in School [1] 5 in the town of Strezhevoi, Tomsk Region, Russia.*

When I first read about the RWCT methods and strategies, I tried again and again to apply them to the subject I teach, literature, only to become perplexed and even annoyed. I could certainly appreciate their potential usefulness, and I liked the way they promote active engagement with text and aim to develop critical thinking. However, I could not see how strategies such as K-W-L (What do I *Know*/*Want to Learn*/Have *Learned*?) (Ogle, 1986) or the INSERT technique could fit with literary texts. So it was a great relief for me to discover that some RWCT methods are intended for working with non-fiction texts, while others are specifically designed for fiction texts, and that these methods are basically different (Zagashev, Zair-Bek, & Mushtavinskaya, 2003; Zair-Bek & Mushtavinskaya, 2004). In fact, any conversation with teachers about textual methods and strategies should start by acknowledging the need to approach fiction and non-fiction differently: Almost any professional development workshop will include language and literature teachers, and their initial reaction is likely to be the same as mine.

We need to teach our students that reading involves not simply gaining information, but actively seeking a deep understanding of the meaning, applications, and implications of that information. Perhaps it was my commitment to this belief that initially drew me to the RWCT methods and led me to try the strategies in my own work. I have used them repeatedly over a three-year period, and in doing so have been able to see with my own eyes the potential of the approach for teaching literature. In this article I share my experience of using some of these methods in my classes.

Incidentally, some of my friends—who without question are themselves critical thinkers—are convinced that a literature teacher has no need for clever teaching strategies because of the nature of the subject itself: Literary texts have a unique potential to stimulate thought, generate emotions, and spark the imagination. However, a worker always needs tools, even when dealing with the best of materials, and this holds true when working with a literary text. Appropriate methods and techniques are invaluable—and often essential—if we aspire to deeply considered ideas, valid judgments, and significant emotional response.

Edgar Allan Poe. Directed reading

One of the methods recommended in RWCT materials for working with literary texts has different names in different sources: *directed reading, read and think, DRTA (Directed Reading Thinking Activity),* etc. This method can be applied both when reading to oneself and when listening to a story read aloud. The steps are as follows.

The process starts with the evocation stage, with strategies that activate students' prior knowledge of the text, its author, and the related context; generate interest in learning new information; and invite readers to predict the content and the problems of the new text based on the title and key words.

The central stage of the approach is called realization of meaning. The text is read section by section, with each reading session followed by a discussion. At the end of each discussion session a prediction question is posed: "What do you think will happen next, and why?"

In the last stage, reflection, the text is viewed as a whole. Students revisit their initial predictions and compare these with their final conclusions. After interpreting the text, students engage in a creative reworking of the new information.

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This three-part structure is designed to encourage slow, thoughtful reading and provide for a deeper understanding of new information. The new information is compared with what the students already know, and ambiguities are clarified either during the reading itself or immediately afterwards.

I have found the directed reading method to be particularly appropriate and effective with students in the 5th–8th grades, working with relatively short texts that can be studied in a one-hour session. In the following section I describe my use of directed reading activities in a 6th grade lesson devoted to "The Masque of the Red Death" by Edgar Allan Poe.

The very name Edgar Allan Poe, and the title of this story, already provide a powerful stimulus to get students thinking. The evocation stage took the form of a discussion:

- What Poe stories do you already know? (In our case, these were "The Gold Bug" and "The Murders in the Rue Morgue.")
- What genres do they represent? (The children remembered that the first is an adventure story, and the second, a detective story; the new information they learned was that "The Masque of the Red Death" is a horror story.)
- Do you notice anything unusual about the title of the story?
- Can you guess what the story is about, based on the following key words: *plague, prince, masquerade, a black room, death?* (the key words strategy).

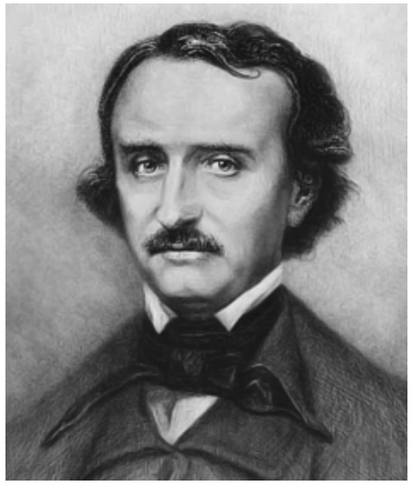
Students were especially enthusiastic about this last question, as they always are when asked to predict plot development. Naturally, in thinking up their own plots, the sixth-graders followed the familiar patterns of standard horror stories, which are extremely popular at this age. Within the suggested framework, they were imaginative and adventurous.

For reading and further analysis, we divided the story into five segments. The students read the first section (the first two paragraphs) to themselves, then engaged in a discussion centered around the following four prompts:

- Prove that this section serves as the exposition of the story. (Questions of this nature help children see and comprehend structural elements as well as content).
- Describe the setting and the characters.
- What do you think about the prince's behavior during the plague? (Students' comments and judgments varied widely, from admiration of the prince's will and courage, to accusations that he was criminally passive and irresponsible.)
- How do you think is the plot going to develop from here?

After students had read the next three paragraphs (up to the words "But, in spite of these things, it was a gay and magnificent revel …") the conversation focused on the following questions:

- What do you think of Prince Prospero's decision?
- What was unusual about the palace in which the masquerade was held?
- Why did all guests at the masquerade stand still when the clock chimed? (This question was intended to help the



Edgar Allan Poe (1809-1849)

sixth-graders expand their store of literary concepts. When reading the following section of text the students would see that the clock was not a casual episode in the story, and realize the significance of such strategically placed details. In this way directed reading prompts children to discover the craft and structure behind a literary text, so that literary concepts are no longer viewed as boring and abstract.)

- Predict the further development of events.

The questions after reading the third section (about three and a half paragraphs, up to the words "And thus, too, it happened, perhaps …") were as follows:

- Do these events develop the plot? What role do they play?
- What did the guests at the masquerade look like?
- What detail gives us a hint that there might be an unexpected plot twist?
- What do you think is going to happen next?

The guesses at this stage were quite varied, as the key words had indicated only where the main event was going to take place, giving no information about what the event might be.

After reading the fourth excerpt (the next four paragraphs, up to the words "It was in the blue room where stood the prince …"), the class discussed the following questions:

- What did the new masked guest look like?
- How did the others react to its presence? Why was even the prince upset?
- What is the literary term for this point in the development of a plot?
- How do you anticipate the story will end?

And after reading the final part, the questions were:

- Who do you think was behind this last mask?
- Can you explain now why "The Masque of the Red Death" is classified as a horror story?

The next stage was reflection, where the questions for discussion were as follows:

- Thinking back to your initial guesses about the plot, how might you revise them now?

(You will recall that most of the initial guesses were typical of popular horror stories, whereas Poe's story invites profound and meaningful reflection. Comparing their own predictions with the actual text helped students gain a better understanding of the story's topic.)

- What did the story make you think about? What is its main theme?

(The answer that the students eventually arrived at: A person facing Death.)

- How does the author address this issue? What is the image of death in the story?

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Costumes for a masked ball

- What does the encounter with death reveal about a person?

It is especially effective and fitting to express one's opinion about a work of art using artistic language. For this lesson, I chose a poetic form for reflection, the diamante poem. The diamante seemed especially appropriate because the form can be set up so that the last line is antonymous to the first one[1]. As the set theme—and therefore the first word in the poem—is death, this type of diamante allows for an optimistic final note, which is of crucial importance when working with sixth-graders.

Here is one of the most interesting of the student-created diamantes:

Death
Sudden, inscrutable
Unpitying, unsparing, all-devouring
Conclusion, outcome. Start, commencement
Springing up, growing, ripening
Sudden, inscrutable
Life

If you have not yet used the activities described here with your own students, I invite you to select a story for analysis and follow the same steps my students did, from the first predictions to the diamante.

Anton Chekhov:
Key words, dual entry diary,
and shared inquiry discussion

The idea of applying RWCT strategies to the analysis of Chekhov's "The Student" with ninth-graders may seem odd at first. The texture of Chekhov's prose is much too subtle and fragile, its harmony too easily destroyed. On the other hand, the story is so deep, so philosophical and multidimensional (but with the slenderest of plots), that its analysis clearly calls for special techniques.

First the teacher needs to deconstruct the story and find an angle that will reveal its intriguing complexities; otherwise it will fail to engage the students' interest and they are likely to be disappointed ("But we thought Chekhov was supposed to be surprising and paradoxical…"). The teacher's goal is to create a situation of cognitive dissonance (or *learning tension*), a term widely used in the heuristic approach to learning (Khutorskoi, 2000), so that the students experience an irresistible urge to understand the author's message. They are then given an opportunity to satisfy this need through independent, close, thoughtful reading. After this reading, the results of the students' independent analysis of the text are summed up and pieced together through collective discussion (the third stage).

Obviously, this process reflects the same basic principles and three-phase structure as the teaching approach described above. If possible, plan such a lesson for a day when you have two hours available in the schedule—forty-five

Anton Chekhov (1860-1904)

[1] The diamante is a poem form similar to the cinquain. It consists of seven lines, as shown below:
First line: a one-word subject that contrasts with the subject in line seven.
Second line: two adjectives which describe the subject in line one.
Third line: three verbs relating to the subject in line one.
Fourth line: two nouns related to the subject in line one, followed by two nouns related to the subject in line seven.
Fifth line: three verbs relating to the subject in line seven.
Sixth line: two adjectives which describe the subject in line seven.
Seventh line: a one-word subject that contrasts with the subject in line one. (Elfwood Tutorials, 2007).

Photo from the author's archive

minutes will clearly not be enough to cover all the activities. In addition to the textual interpretation, an important goal of this lesson was to help the ninth-graders acquire a better understanding of the means for revealing the author's position in a literary work.

To deconstruct the text, I again resorted to the key words method. In this case, the words and phrases were*: evening, Holy Week, dialogue, the Apostle Peter, reaction of the women.* The students were given three minutes to think individually about the question: "What might be the subject of a story with these key words?" Then students were organized into groups and given five minutes to make predictions about the plot, which they then presented to the class. To be honest, I half expected that they would manage to come up with a comic plot. And that would not have been a bad thing—a complete lack of overlap between their predictions and Chekhov's text would provide for just the sort of deconstruction we needed. But the key words led them in different directions, and the students' plots turned out to be full of drama and mysticism. Anyway, the strategy proved effective: After formulating their predictions, the students were eager to read the story.

At the realization of meaning stage, I used the *dual-entry diary* method. This technique works as follows: A page of notebook paper is divided into two by a vertical line. On the left, the student writes down short quotations or significant details from the story, things that seem either relevant for understanding, or unexpected. These notes may offer support for initial predictions, or may give a hint of the further development of the plot. Readers may choose quotations that remind them of events in their own lives, or remind them of another story or work of art. After filling in the left column, students proceed to the right one, where the task is to write down associations, ideas, or emotions related to the items on the left. An excerpt from one of the student's journals is on top of the next page.

When the students had read the whole story and completed their dual-entry diaries, they began to work in pairs. The partners discussed their initial guesses (formed on the basis of the key words) and exchanged ideas that arose when they compared the actual text with their imagined versions of it.

After three minutes, each pair turned to a neighboring pair, and these groups of four each compiled a two-part journal summarizing all of the important issues in their individual journals. After five minutes of discussion, a representative from each group read aloud selected quotations from the beginning, middle, and end of the story, along with the group's comments about them. After each quotation, the class was surveyed to see if others had commented on the same excerpt. If so, the groups compared their conclusions, focusing on any differences in their interpretations of the same events.

Once all groups had shared their observations, I asked the ninth-graders if they thought they had understood the author's message. The students were hesitant: They obviously realized that the interpretation they had just come up with seemed somewhat "unfinished," superficial, and fragmentary. To deepen their literary analysis, they needed a teacher's help. Anticipating this situation, I had prepared a brief glossary of Biblical concepts used by Chekhov, as well as some comments about the story written by the author and by critics, and I distributed this handout to the students.

But the real basis for our further work was the students' lively interest, their own desire to leave no stone unturned in exploring the ideas that had emerged at the

An excerpt from a dual-entry diary

… a *seminary student*	The plot will probably be connected with spiritual matters.
"At just such a fire the Apostle Peter warmed himself," said the student, stretching out his hands to the fire… Peter, too, stood with them near the fire and warmed himself as I am doing…	Certainly not a casual parallel.
… the reaction of both women to the student's story…	This must be the climax of the story. The women may be connected in some way to the story told by the student, and this may account for their strong reaction.
… joy suddenly stirred in his soul	Why such unexpected joy? There is a change in the mood of the hero.

evocation stage and grown perceptibly at the realization of meaning stage.

During the reflection stage, the discussion dealt not with the readers' individual associations but with the theme and ideas of the story as a whole. My first question was formulated so as to encourage a *shared inquiry* discussion (in which the participants first had to generate questions, then think them over, discuss, and sum up the discussion): Are there any places in the story that are still not clear to you? What questions would you like answered?

The students wrote their questions on the blackboard. My task was to help them arrange these questions in a logical sequence and, if some relevant point escaped their attention, to suggest that it be included. Below are some of these student-generated questions, followed, in parentheses, by my own summary of the students' observations and conclusions. The ninth-graders arrived at these conclusions independently in the course of discussion, with the help of the teacher-prepared materials, which they could refer to in formulating different lines of inquiry and argument. In my view, both the students' questions and their conclusions testify to their deep insight into the topic.

What, after all, is the plot of the story?

Nothing happens, the action takes place only in the hero's mind. He suddenly discovers a new, unexpected perspective on life. The focus of the story is not on an external event, but on the hero's perception of it, his emotions and thoughts. Significantly, when discussing the plot the ninth-graders made a connection with the peculiarities of the author's language—in particular, they noticed the frequent use of verbs describing a state of mind or mental activity: *feel, seem, think (sink into thought), remember, sigh;* and the systematic use of repetition, which calls to mind an impressionist picture, or a musical composition, or a lyric poem.

What event is the climax of the story and why?

In Chekhov's stories, a casual occurrence often leads to an understanding of the profound laws governing the course of life. In "The Student," this event is a casual meeting and a talk by the fire, a Gospel story told by the student about the denial of Christ by His disciple, and the listeners' perception of this story. The women's reaction is unexpectedly strong, as if the story has deep personal significance for them—and this, in turn, makes a deep impression on the student and entails profound changes in his world view.

Photo from the author's archive

What changes took place in the hero's mind?

Suddenly the hero finds the answer to the question, "What is life for?" His pessimism gives way to optimism, and he continues his way back home, possessed by "sweet expectation of happiness".

What is the author's position in the story?

This question turned out to be the central issue in the discussion—all the other questions had served to bring the participants to this main point. The easiest thing was to assume—as the students did initially—that the main character expressed the viewpoint of the author: Life is good in spite of everything, because the important things in life are Truth and Beauty. "But then we could call this story idealistic, which is hardly typical of Chekhov," I remarked, and the students had to agree with that.

To reveal the author's position in the story I then proposed two research assignments:

1. Find in the text a verb that is used repeatedly by the author and that casts doubt on our assumption that the author's viewpoint coincides with that of the hero.

2. Examine the author's own comments about the story, and consider the possible implications of the hero's surname. Consider how this information might affect our interpretation of the story.

The students (working in the same groups of four) were given five–seven minutes for this task, with each group doing one of the assignments. It should be noted here that these assignments led to a discussion of universal values, an especially important topic for teenagers, who are establishing personal values at this stage of their lives. Here is what the groups working on the first assignment discovered:

> *The phrase "seemed to him" is repeated in the story three times (*citations from the text were provided). *This persistent repetition makes us think that there is a certain distance between the author and the hero, and that the message coming from the author must be different: Human life cannot exist without hope, belief, and illusion. The carrier of this illusion is the main character, not the author.*

The groups working on the second assignment produced the following results:

> *(a) Chekhov wrote in his commentary: "There is an enormously vast field between 'God exists' and 'there is no God.' The truly wise man traverses it with great difficulty. A Russian knows one or the other of these two extremes, but is not interested in the middle ground…"*
> *(b) The hero's surname, Velikopolsky, contains two Russian roots: velikoe [great, vast] and pole [field]. Perhaps Ivan* **Veliko-polsky,** *a seminary student, is walking across the* **great field** *between "God exists" and "there is no God" in search of the truth? Could this be what the story is about?*

At the end of the discussion the ninth-graders concluded that Chekhov's "The Student" is distinctive in its lack of emphasis on the author's position. However, this should not be regarded as an artistic weakness—it is precisely this peculiarity that makes the story so meaningful and allows for so many interpretations.

If this attempt to interpret Chekhov's story can be judged successful, there is no doubt that RWCT methods contributed to this success. Moreover, on the way to achieving the goals set at the beginning of the lesson, we also moved forward in accomplishing a larger educational task: developing the students' ability to think critically.

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Teruni Lamberg

Where Do Ideas Come From? Scaffolding Creative Thinking in the Classroom

Photo from the author's archive

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Creative ideas are not simply generated in a vacuum. If we want students to think creatively and find novel solutions to problems, we must explore how creative ideas originate. This means we need to find ways to help students develop habits of mind that facilitate creative thinking. In this article I explore how creative ideas are formed by examining the question, "Where do ideas come from?" Several ideas for procedures teachers can use to encourage students to think creatively are presented.

Setting up a problem

Identifying a problem situation is an important aspect of solving problems (Kilpatrick, 1987). Generating creative solutions to a problem requires understanding the problem context in various ways. The individual must be able to explore the problem from different points of view. Consider a situation where three children are sharing two pizzas equally. The children have to figure out what it is they are dividing and how to divide the pizza equally. One child may think about the pizza as two separate units, as illustrated in Figure 1.

The student can solve this problem by dividing each pizza into thirds and giving each child one piece. Therefore, the child gets 1/3 of each pizza and gets 2/3rds of the total. However, this problem could also be visualized differently. A student may think of these two pizzas as making up one composite unit, as illustrated in Figure 2.

If the student thinks about the pizza as one unit made up of two pizzas, he or she may argue that each child gets 1/3 of the total quantity. The two solutions, 2/3 and 1/3, may appear to contradict each other. Each solution only makes sense in the context of how the problem is originally interpreted. Therefore, exploring and understanding different ways to frame the problem is an important aspect of finding solutions. This is a different approach from simply telling students how to visualize the problem and providing them with the procedures to solve it. Identifying and exploring the problem context is a critical part of creative thought.

The quality of solutions—and of novel ideas generated during the problem-solving process—is influenced by the depth and quality of the problems investigated. For example, if the children are dividing an actual pizza, they will have to make decisions about how to cut and distribute it equally. Unfortunately, we rarely provide students with adequate opportunities to truly explore problem situations. Rather,

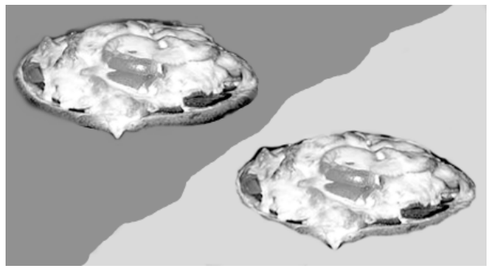
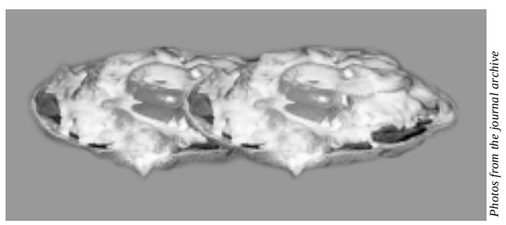


Figure 1. Two whole pizzas



Photos from the journal archive

Figure 2. One unit of two pizzas

we tend to rush this process, and therefore we are often disappointed at the lack of depth in student thinking. We must consciously devote greater attention to generating problems prior to asking students to come up with a solution or product. We could do this by asking students to think flexibly and from multiple perspectives. Therefore, modeling and involving the students in figuring out "what if" scenarios can help.

The Role of Dissonance

Cognitive dissonance (Festinger, 1957) is an important aspect of creative thinking. We need to let students struggle with feelings of discomfort associated with solving problems. We often give students solutions to problems, as opposed to letting them struggle with ideas and figure things out for themselves. However, this psychological discomfort is a mechanism that can lead to creative thought (Festinger, 1957). When an individual experiences cognitive dissonance, he or she seeks to get rid of this uncomfortable feeling by finding solutions. The greater the dissonance, the greater is the pressure to reduce dissonance. Philosophers have grappled with the idea of cognitive dissonance—Aristotle compared this feeling to a knot in which all thoughts are tied up (Festinger, 1957). Having to untangle the knot to solve the problem, the person does not know where to begin. This situation leads to feelings of frustration, either conscious or subconscious, and creates a desire to find a solution to a vexing problem. The types of questions that form in one's mind might involve understanding the cause of the cognitive dissonance: "How did it happen?" "How does it work?" The need to generate solutions, which is experienced as a state of either self-induced or externally induced cognitive, physical, and/or emotional tension, is what motivates someone to be creative (Amabile, 1983). During this time, the individual attempts to reach a state of equilibrium (Festinger, 1957).

Teachers can create dissonance in students by posing problems or dilemmas that are not narrowly defined. Such problems spark the interest and imagination of students. For example, fifth grade students were told that they were going to have a class party and were given the task of generating a shopping list. The students needed to figure out what items they needed to purchase and how much of each item they should buy for 30 children. The problem described is open-ended, because it meets the following criteria: (a) the problem can be solved in multiple ways; (b) there is no one correct solution to the problem; (c) the problem can be solved in varying degrees of complexity; and (d) the problem lends itself to "what if" scenarios. For example, the students might have to consider how many units should be purchased if the cookies came in boxes, as opposed to purchasing individual cookies. The photo below represents how a group of students solved the problem.

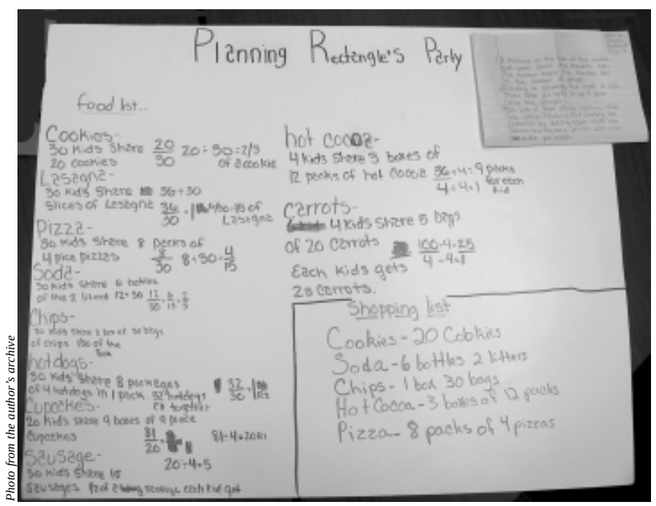


Photo from the author's archive

The solution that students came up with involved considering how items are packaged. Each student individually had thought about an item, figured out how to divide the item equally, and determined how much should be purchased. They then collectively discussed each entry prior to writing it on chart paper. One student, Kristine, seeing a grocery store advertisement, proposed serving lasagna at the party. Michelle had envisioned that lasagna is packaged in boxes, and figured out that you could slice each tray of lasagna into 12 pieces, and then calculated there would be 36 pieces in total. The following dialogue was exchanged between the students in this group when deciding what to write on the poster:

Kristine: The lasagna! Now do the lasagna!
Michelle: Thirty people share 12 slices of lasagna. [looking at her notebook] Twelve slices of lasagna.
Kristine [writes]: 30 kids share 12 slices of lasagna.
Michelle: But wait! I used three boxes of lasagna!
Kristine: So we put that down here, don't we? So we put down *12 slices of lasagna?* uuuugh! [Crosses out the 12 and writes 36 / 30.]
Sami: That's going to be 36 divided by 30.
Kristine: Thirty-six over 30, no wait, it is going to be 36 on the bottom and 30 on the top.
Sami: No, I don't think so, because you are splitting 36 slices into 30 people. We are splitting 36 into 30, so we put 36 on the top and thirty on the bottom
Kristine: I know, but do I put the 36 in?
Michele: The 36 is the stuff to split! [Kristine writes slices of lasagna next to 36]
Sami: One and one-sixth.
[Kristine crosses out 1/6 and writes 6/30]
Michelle: Six thirtieths is one fifth, six divided into 30 is five because that equals one fifth.
Kristine: It is one and one fifth of a piece.

The students experienced dissonance when they had to figure out how to symbolically represent the pieces. They reasoned through the actions needed to solve the problem, and what the mathematical symbols stood for. The purpose of this example is not to suggest that this is how a teacher *should* teach fractions, but rather to illustrate what happens when students are allowed to struggle with a problem, to figure things out for themselves. The students were able to reason through the problem situation, and self correct a mistake. The teacher did not have to show them how to do the problem.

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Knowledge

Knowledge is an important part of thinking creatively. Bending rules, interpreting information in fresh and novel ways, and challenging traditional beliefs all require an understanding of existing knowledge (Sternberg & Lubart, 1993). Knowledge represents a categorical organization of facts and principles rather than a simple collection of facts (Barsalou, 1983; 1991; Owen & Sweller, 1985). According to Sternberg and Lubart (1993), "Knowledge, in the form of practice can allow a person to concentrate mental resources on processing new ideas. And knowledge can help a person to note and use chance occurrences as a source of creative ideas (Rosemann, 1988)." For example, consider Renoir, the impressionist painter. He was schooled in the classical sense of painting. He copied the style of masters such as Rubens. Most classical paintings were done in studios as opposed to outdoors. Furthermore, most subject matter in classical paintings involved mythology. Then, at a training school in the forest of Fontainebleau, Renoir was introduced to modern naturalism. He used his knowledge and training to experiment with different techniques and create his own unique style. He incorporated elements of traditional drawing methods, the wider range of pigments used by Courbet, and a pre-impressionist visual and atmospheric style.

Pierre Auguste Renoir (1841-1919)

Above: Lady at the Piano. 1875.
Oil on canvas.
Art Institute of Chicago, USA.

Below: Young Girl with Parasol (Aline Nunes). 1883.
Oil on canvas.
Collection David-Weill.Paris, France.

His focus was on color, form, and atmospheric rendering of reality. He experimented with different ideas to come up with a style close to the reality of observation (Martini, 1978). He was able to use his training and knowledge in original ways.

A study of over 500 notable musical compositions, produced by 76 "great" composers, found that only 3 of the pieces were composed during the first 10 years of their composers' careers (Sternberg & Lubart, 1993). This finding is interesting because it suggests that knowledge is necessary for creativity. Therefore, before students can be expected to be genuinely creative, they must draw upon what they have learned, both formally and informally. For example, a student must understand that a fraction can be symbolically represented in the form a/b. At the same time, $a \div b$ also represents a/b. This knowledge helped the children in the prior example figure out how to represent the problem situation using formal notation. The students were able to connect their informal knowledge about lasagna with their knowledge of formal mathematics. The formal knowledge did not get in the way of coming up with a solution to the problem. Rather, students used their knowledge of formal mathematics to come up with a solution that made sense. Students understood that the dividend goes on top and the divisor goes in the bottom. They were able to use this knowledge to reason through the solution. Obviously, teachers can provide students with opportunities to gain knowledge. More importantly, teachers should also think about situations where they can have students apply their knowledge in different contexts.

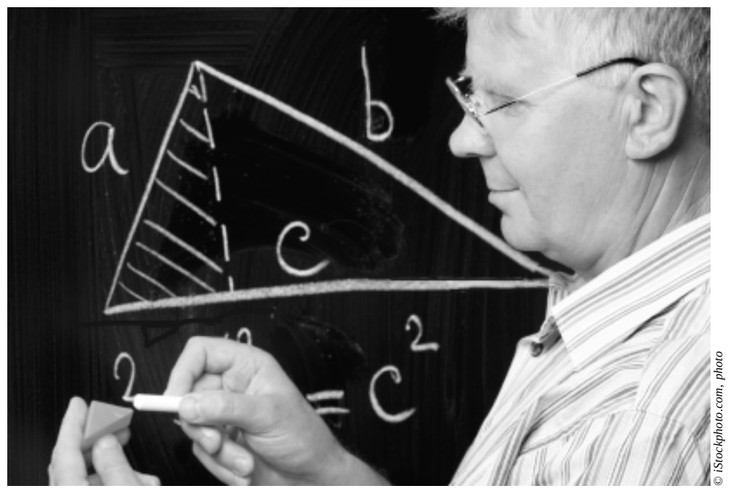
Imagery

The ability to visualize and manipulate images in the mind is a powerful aspect of creative thought. "Imagery is related to imagination, with both referring to pictures and perhaps using the inner eye to see or portray scenes that do not materially exist" (Piirto, 2005, p. 15). The mind can manipulate images without physical constraints. For example, consider repainting a room. You attempt to visualize what the room might look like using a small sample color. In contrast, painting the room several times with different colors to figure out the color you want would be impractical and costly. Images defy all boundaries, giving the person the opportunity to mentally create. Physical manipulation of tools limits the individual, both by the limitations of the craftsmanship and by the tool itself. Through imagery, the mind can be stretched beyond the immediate constraints of reality.

Imagery in either dream or waking states has produced most historical scientific discovery and invention. Gowan, Khatena and Torrance (1981) provide as examples figures such as Newton, Faraday, Agassis, Archimedes and Loewi. Ferguson (1977) observes:

> *Many features and qualities of objects that a technologist thinks about cannot be reduced to unambiguous verbal descriptions; they are dealt with in his mind by a visual non-verbal process. His mind's eye is a well-developed organ that not only reviews the contents of his visual memory, but also forms such new or modified images, as his thoughts require... It is non verbal thinking, by and large, that has fixed the outlines and filled in the details of our material surroundings… Pyramids, cathedrals and rockets exist not because of geometry, theory of structures or thermodynamics, but because they were at first a picture, literally a vision, in the minds of those who built them* (p. 827).

Teachers can encourage students to use imagery to visualize problems or come up with solutions. Visualizing motivates students to think as well as giving them access to ideas (Goldenberg, Cuoco, & Mark, 1998). Teachers can encourage visualization by providing a stimulating classroom environment. For example, having a class library, posters on the wall, access to physical tools, computers and other materials provides students opportunities to visualize. However, simply providing tools is not enough. Class discussions where students explain how they are visualizing a problem are helpful. What is inside the mind is not always visible. Sometimes, thinking means staring into space or playing with objects until ideas emerge. Therefore, busywork should not be equated with thinking. Teachers must recognize that thinking requires time. Students must be given the flexibility to think creatively in a style that is authentic to each child. This does not mean that it is necessary to allow free reign in a classroom, without any structure. Rather, the teacher needs to recognize when students are generating and germinating ideas. Time to think, gather information, and incubate ideas all support the generation of imagery. In this case, prior to determining ways to divide and share the lasagna, they had spent time examining grocery store ads and mulling over the kinds of food they would like to eat.



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Risk Taking

Curiosity, intuition, spontaneity, perseverance, and independence are characteristics of creative thought (Gowan, Khatena & Torrance, 1981). Creative thought requires dealing with uncertainty in constructive ways. Therefore, taking risks in an attempt to make connections between new information and existing information is an important part of this process (Treffinger, 2005). Students need a socially safe environment to make mistakes and take risks, one in which they feel free to discuss their ideas, listen to each other and

challenge each others' thinking. Students have different learning styles, so providing students with opportunities for multiple modes of learning can facilitate thinking (Gardner, 1982). Students can examine ideas by writing in journals, by creating artwork, and by using technology.

Conclusion

Creative thinking involves generating interesting problems as well as identifying or redefining problem situations. When a problem is identified, the individual is likely to experience cognitive dissonance. This dissonance plays a critical role in the creative thinking process because it motivates the individual to seek solutions. The creative thought process involves making connections between a person's existing schema and new information in novel ways. It is a way of seeing. The depth and quality of ideas that students produce are influenced by the environment we provide for them. Too often, we fail to provide students with adequate time and experiences to germinate rich ideas. When students claim they don't have anything to write about, or the work that they produce lacks depth, we need to critically examine the quality of the experiences we have provided them, and ask ourselves whether the problem might not originate there.

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Vera Datsik

The Long Road to Literacy: Students Decode Ancient Writings

Photo from the author's archive

***Vera Datsik** is the Head Librarian at School 177, Saint Petersburg, Russia.*

I keep six honest serving-men
(They taught me all I knew);
Their names are What and Why and When
And How and Where and Who.

R. Kipling

From 2000 through 2004, our school was one of Saint Petersburg's experimental sites for the Reading and Writing for Critical Thinking program (RWCT). When our teachers began to implement this new educational approach, I, as the school librarian, joined right in.

Now, I regularly apply these strategies when working with library users, and even share my experiences with colleagues. As a rule, I get very positive responses, but once, after a demonstration lesson for the city librarians, a fellow teacher commented:

It is easy to conduct this kind of lesson. The teacher has nothing whatsoever to do; the students do everything. They set the tasks for themselves and carry them out on their own.

I explained to this colleague that she had been deluded by the seeming simplicity; what she observed was only the tip of the iceberg. The invisible part—all the preparation I had done—had taken me two months. This work included

- finding the texts for the lesson;
- verifying the reliability of the selected information;
- adapting the selected materials;
- devising playful activities for exploring the materials (Having fun is essential when working with students);
- preparing the necessary equipment and materials for the class.

Education is, first and foremost, self-education. Therefore one of the major goals of any educator, whether teacher, librarian, or parent, is to prepare students for life and work in the "information society" by teaching them how to retrieve knowledge independently, and how to find their way through the mass of available information. For the past three years I have used RWCT strategies for this purpose during our library circle sessions.

A *library circle* offers a combination of exposure to the theoretical study of literature and immersion in the world of books. Our program is designed for grades five through seven. We meet for two hours twice a week: the first hour is devoted to group work, and the second to working individually.

The library circle brings together students who are keen on books. They learn how to:

- find their way in the world of information (print and electronic);
- work with various of print resources;
- select and adapt information on a topic;
- logically organize the collected material and present it effectively (this helps them develop their public speaking skills);
- use library tools and facilities (alphabetic and subject catalogues, card files);
- use library reference sources (encyclopedias, directories, dictionaries, etc.);
- use the footnotes, references, and appendices in a book.

In this article, I present a sample library circle session based on the RWCT approach and devoted to the theme *The Long Road to Literacy.*

The goal of the lesson was to acquaint students with the development of literacy and with different kinds of writing: from primitive symbolic objects to modern text

messaging (mobile-to-mobile SMS). I didn't want the lesson to be just another boring lecture; I intended it to be a joint quest for knowledge that would provide opportunities for the students to apply their intelligence to practical problem-solving tasks, work together, and prove something to each other. I was aiming for more than simply presenting new knowledge in an engaging, unusual form. Keeping in mind Lurye's (2004) perceptive statement that "the subtlest matter of education is not methods. It is human relationships" (p. 4), I want my students to develop an ability to listen to the opinions of others and not to be afraid to assert their own.

I started this lesson with quite a difficult riddle: *The soil is white, the seeds are black, five are plowing, two are watching, one is in charge.* The students offered a number of answers: a state; a city; workers in the field… I then took a clean sheet of paper out of an envelope and said, "This is the white soil." Step by step, with the help of my prompts—gestures, miming, and the writing on the envelope—the students solved the riddle: *paper, letters, fingers, eyes, and brain*. They realized that this riddle describes the writing process.

Next I divided the class into seven mini-groups (three to four people in each). I had prepared seven "messages," each using a different kind of writing. Prior to the class, the messages had been placed on the desks and covered with a cloth.

Before continuing with my description, I want to acknowledge that a number of highly creative people—friends and colleagues, students and their parents—contributed their talents to the making of these unusual messages.

For the first "message," I singed an ordinary wooden ruler above a gas flame so it would resemble a piece of burnt wood. Then I found a stick on the ground outside my house and my husband, a jack-of-all-trades, cut many notches into it with a kitchen knife. A colleague from school contributed a goose feather. Her husband, a navy officer, suggested using a dried fish. So the first message consisted of a stick with numerous notches, with a feather, a piece of burnt wood, and a fish attached to it.

Next my husband cut notches on a wide wooden plank (a scrap of a door left over from a renovation project) and split it lengthwise. This was the second message: two wooden planks with matching notches.

The third message was a white cord with thinner multi-colored strings (green, yellow, black, red) of different lengths attached to it. The head of the school's macramé circle supported the project by investigating quipu (knot writing) at my request so that she could tie the complicated knots I needed.

The fourth message was a stone with images of an upside-down deer, a pole-axe, two half moons, and several small lines to the right and left of the deer. This message was prepared by a seventh-grade art student, who based it on a description in *How Humans Learned to Write* (Zvonitsky, 1994). This stone message is now a treasured exhibit in the reading room of our library. (The stone itself has historical significance. It was brought from the shore of the Gulf of Finland, just outside Saint Petersburg, by the parents of one of our senior students. Saint Petersburg is built on marshland, and stones delivered from other parts of Russia have been used to shore it up since it was founded by Peter the Great in 1703.)

Photo from the author's archive

The fifth message consisted of tablets covered with plasticene, with rectangles and triangles resembling ancient Sumerian cuneiform writing pressed into the surface. One of our elementary school teachers gave me the idea of "engraving" them in ordinary plasticene.

For the sixth message, the talented seventh-grader mentioned above copied a relief depicting an Upper Egyptian Pharaoh from a textbook on ancient history (Vigasin, Trukhina, Samozvantseva, 1997, p. 43).

The seventh message was made by our art teacher. It was a sheet of a paper with two letters, with a zigzag line (the so-called *titlo*) above them, and the word МАІЙ below.


Photo from the author's archive

A former student gathered descriptions of various kinds of writing from the Internet. The mother of one of the students, a chemist by profession and our "resident poet," wrote some verses about the different forms that writing has taken (incorporating key words I suggested). We also found appropriate verses and illustrations in a book by Zvonitsky (1994).

Not surprisingly, the decoding of these messages turned out to be a fascinating activity. Each of the seven groups had to guess what type of writing was represented in their message and, on a large sheet of colored paper, write down what they thought it might say. I allotted five minutes for this activity, and then each group presented their speculations orally. The "translations" were displayed on the blackboard and walls.

The students truly appreciated the messages they were given to interpret. Their initial bewilderment soon gave way to expressions of fascination and delight. During the discussion, I could see their imaginations take flight.

The participants in the first group began by counting the number of notches on their stick. There were forty. Some students thought the message meant that if a person walked for forty days in the direction indicated by the branch, he would reach a lake with lots of game and fish. Others interpreted the message as a call for help sent by people who had been wandering in the woods for forty days. They survived only because predators were not hungry in summer. Sometimes they managed to bring a bird down with a stone, or catch a fish and cook it over the fire. But more often they had to eat tree bark.

Having considered a range of possibilities and clarified for themselves where fish could be caught in the woods, the first group presented the results of their discussion as follows:

It has been forty days since we lost our way. We have had only two decent meals during this time. One was a fish we caught in a forest lake, and the other a bird cooked on the fire. Save us!

The second group received what was literally a "weighty" message—a seven-kilo stone. First they tried to set it upright. Apparently the stone could be balanced only on one side, which put the deer engraved on it an upside down position. Their interpretation of the message was as follows:

This is a stone from a cave where people lived long ago. For seven years a deer lived nearby. Once in winter, when food was scarce, a hunter killed the deer with an axe and fed the whole tribe of nine people.

The third group worked with the message made of multi-colored strings. They offered the following "reading":

This is the flag of an ancient country. The green color represents the bounty of nature, the yellow means the kind and gentle sun, the black stands for fertile soil, and the red indicates the fighting spirit of the people defending their lands. The knots and length of strings represent the amount of available riches.

The fourth group received the two identical planks with four notches on each. Here is their version of the message:

Workers ask for help in reconstructing a road that has been broken in half.

After studying their plasticene tablets, the fifth group came to the following conclusion:

This is a message from an ancient people. The yellow tablet describes their life before a war, when their lands were rich and everything flourished there; the brown tablet depicts their lands after a devastating war. They need help.

Photo from the author's archive

The sixth group, recalling their world history lessons, immediately recognized that their message came from ancient Egypt:

A convicted criminal is being punished in the presence of a pharaoh and his men. The souls of the dead, who could not endure such terrible punishment, are shown below.

Skillfully and confidently, the seventh group came to a unanimous opinion:

The message we received is a page from the historical record. It is written here that on May 27 the city of Saint Petersburg was founded, by decree of Peter the Great.

For the next stage of work, no less interesting, the students were asked to think of questions they needed to answer before they could understand what was actually written in their messages. I reminded them of the Kipling poem that serves as an epigraph to this article. The students came up with many questions*: What was written here? When, Where, and How was the message written? Is this kind of writing still used today?* Then, using their questions as a guide, students looked for answers in the texts I had prepared and distributed.

I had spent so much time and effort compiling those texts because I knew that the success of our library lesson would largely depend on my preparatory work. I had to keep in mind that the selected texts should be short (our time was very limited), comprehensible, and highly informative so that, using only those texts, students would be able not only to interpret the "messages" correctly but also to answer all their own questions about them.

I suggested that they write down the answers they found on a new sheet of colored paper. They would eventually compile the information into a brief report about the kind of writing they had analyzed. The time allotted for this task was 15 minutes. Because of the condensed time frame, I suggested that participants enhance their presentations with appropriate graphics and poems from Zvonitsky's book, *How Humans Learned to Write,* or with the poems that had been written especially for our session by L. Novikova, the mother of one of our students.

You should have seen the students' delight! They put so much passion and enthusiasm into decoding their messages! Without any intervention on my part, they efficiently distributed the roles of author, editor, scribe, designer, and presenter among themselves.

What was the actual meaning of the "messages"?

Probably, dear readers, you are as eager to find this out as my students were.

The first, a symbolic object message, was sent from the Lutzu (or *Lutze,* a small indigenous people in Tibet) to the Chinese as a declaration of war. It was a notched stick with a feather, a piece of burnt wood, and a fish attached. The notches meant that many soldiers would take part in the war; the feather indicated a quick attack; the burnt piece of wood promised that the Lutzu would destroy everything in their path; and the fish signified that their enemies would be drowned.

Having answered the questions they had set for themselves, the members of the first group presented the correct interpretation of the message and finished their presentation with a poem written by L. Novikova:

Photo from the author's archive

A branch across your way
means take to your heels and flee,
A branch along your way –
you will win and dance with glee.
We inherited dozens of methods
from those primitive ancient letters:
Friends are to be welcomed
with symbols of friendship
which in Russia are bread and salt.
And Native Americans
smoke a pipe
meaning peace, no grudge, no fault.

The second message, a *pictogram,* was actually a tombstone. The image signified that a tribe leader called Deer had participated in seven campaigns and nine battles, and was killed with a pole-axe during a campaign that lasted two moons. Here the inverted deer tells us the leader's name, and the lines to the right and left tell the number of campaigns and battles.

The third, knotted message is also called *quipu*. Each color in quipu symbolized a certain concept. For ancient Incas, white symbolized potatoes, yellow stood for gold, green for grain, and red for soldiers. Using the information from the handouts, the students were able to calculate not only the Incas' riches, but also the number of tribesmen who died, since black symbolized misfortune or death. In the course of their research, these students made another discovery. Knotted messages may also have been used by the Slavic peoples. This notion is supported by the Russian proverb "tie a knot to remember."

The fourth type of message was a message stick, a plank with notches representing unpaid debts. The number of notches indicated the amount of the debt. After the notches had been carved into the plank it was split lengthwise so that each of the two halves had the same number of notches. The message stick served as a receipt for financial obligations. One half was kept by the creditor, the other by the debtor. As the debt was paid off, the notches on each half were cut off. The participants learned that the indigenous peoples of Australia and New Zealand used message sticks with various notches and signs to designate a variety of concepts. A messenger usually pointed to the signs and "read" the message to the addressee. Similar message sticks were also once used in Scandinavia, to call up warriors to fight in a war.

As I mentioned earlier, each group could choose images and verses to make the presentation more engaging. Here is a poetic image of stick messages:

When they had to send a message
to a friend or to a neighbor,
Ancient peoples carved some notches
'cross a common stick of wood.
And this simple notched message,
read by those living near-by
Would encourage, warn or threaten,
and be quickly understood.
(L. Novikova)

The students were intrigued to discover that the Slavs called their stick messages *memory boards*, or *nos*, from the verb *noseet* meaning "to carry," because people carried them around and used them to take down information, the way we now use a notepad. The word *nos* resembles the word *nose*, in Russian as well as in English. This explains the Russian saying "Cut it on your nose" ("Don't dare forget this!"), which has nothing to do with the noses we have on our faces, but means "make a notch on your memory board". While the clay was still damp, signs were pressed into it with a sharp stick. In Mesopotamia, archeologists have found many geometrically shaped counting tokens made of clay and stone—spheres, cylinders, disks, and cones. A cylinder might represent a sheep, and a cone stood for a jug of oil. At some point in history these tokens were replaced by clay tablets with images of these figures. By counting the number of cones and cylinders on the tablet, the fifth group found out how much olive oil and how many sheep were owned by some ancient Sumerian.

The sixth, *hieroglyphic* message related events of 5000 years ago, when the Pharaoh Narmer ruled in Egypt. He won many battles and wanted his victories to be preserved forever in stone. Skilful artisans worked day and night on the reliefs. Their carvings depicted the pharaoh himself, the enemies he had killed, and the captives he had seized, and even specified the number of captives: 6000. But the most important thing was to let future generations know the name of the pharaoh, and this was achieved through hieroglyphics. Each glyph designates a word or part of a word. For Narmer the artists inscribed a fish and a chisel, as the word *nar* meant catfish, and *mer* meant chisel.

In the seventh, *alphabetic* message, letters were used to represent numbers, in the manner of the ancient Slavs. A number would have dots on both sides to distinguish it from a word, and above it there would be a special sign, the *titlo*. The students not only figured out the date in their message, May 24, but also learned why this day is now celebrated in the Slavic world as the Day of Slavic Literacy and Culture.

What happened after the presentations?

When all the groups had taped their reports to the blackboard and walls, next to their initial guesses, everyone realized that we had the makings of a book, with seven chapters, each devoted to a different kind of writing. All that was missing was the cover.

I confess that I had already asked our art teacher to prepare a book cover. Her design showed a long twisting road, symbolizing the development of writing over many millennia. In the background was the monument to Cyril and Methodius, the founders of Slavic writing, which stands in the center of Moscow. The title of the book was the theme of our lesson, "The Long Road to Literacy." The road on the book cover had a beginning but no end—writing continues to develop,

Photo from the author's archive

Message
primitive, unusual
warns, informs, directs
agreement helps us understand it
objects

Message
colored, ancient
tied, worn, passed over
knotted by leaders in a special way
knots

Message
wedge-shaped, Sumerian
counts, depicts, preserves
the information on clay tablets
imprint

Message
stick, wooden
cut, taken along, well-remembered
destroyed once the debt is returned
notches

Message
bright, symbolic
scribbled, passed over, not understood
by peoples of different times and languages
drawing

Message
mysterious, hieroglyphic
invented, written down, used
by the ancient Egyptians, the Chinese, the Japanese
symbol

Message
habitual, convenient
created by, developed, and presented
to Slavs by brothers Cyril and Methodius
Letters

Writing
mysterious, various
informs, warns, differs
creativity of people of different epochs
Signs

as the students realized when they considered modern text messaging (where Latin and Cyrillic alphabets are used along with pictograms). In the sidebar are cinquains written by my students at the end of the session, which, significantly, they sent to my mobile phone as SMS-messages.

Photo from the author's archive

I have described this library lesson in such detail here in an effort to demonstrate the efficiency and effectiveness of the interactive teaching approaches used. Despite the amount of time and effort required for preparation, it proved a more than worthwhile investment as these methods made it possible for me to discover a researcher and a self-educator in every one of my students.

I began this story with a comment from a colleague. I'll end with another. After this library lesson, a group of Saint Petersburg librarians who were visiting our school also wrote a cinquain:

Library lesson
unusual, dynamic
solved, argued, presented
students studied the history of literacy
delight!

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Should There be a Place for Competition in School?

***Alla Fontanova**, mother of three adult chirlden, RWCT program certifier, Moscow, Russia*

Does it make sense to promote competition in school?

I do not really welcome this idea, as any competition or contest produces not only winners but also losers. The losers suffer, especially when they are defeated again and again. A chronic loser is likely to end up having no faith in him- or herself at all.

In what spheres do we usually encourage competition at school? Primarily in acquiring knowledge, skills, and leadership qualities. All these can be developed in students in many different ways, with the help of a thoughtful teacher. We can hardly expect to develop leadership skills by demonstrating to someone that he or she is not a leader. And perhaps not everyone even needs to be a leader in life.

As a mother of three children, I know that all children are different, even in the same family. They develop and change greatly, intellectually as well as physically, and amaze us with their thoughts and ideas. But for all of this to happen, children need encouragement, love, and trust. And that, it seems to me, should be the fundamental mission of schools.

Many people would argue that competition is part of our life, so children need to be prepared for it. Still, I do not think that this preparation should consist of endless rivalry. A person doesn't learn to win by losing over and over again.

To prepare our children for the competition of the adult world we need to value their unique qualities and talents, to help them discover their personal strengths, to have faith in them, and to teach them to have faith in themselves.

***Artashes Samaryan**, psychologist, Youth Center for Women's Initiatives in Sevastopol, Ukraine.*

Is there a place for competition in school? Sure there is. While, in theory at least, the supply of good grades is unlimited, other resources, such as the teacher's attention or social standing among peers, are limited, and the children have to compete for them. The behavior of first-graders is a good example of this point: During recess they cling to their teacher, trying to touch her and ask her questions. The teacher's attention is a vital resource for them. High school students are more concerned with the respect of their peers. (Of course they compete for their teacher's attention too, but they do so more discreetly, concealing their bids from their classmates). In fact there are many things—besides grades—for which students may compete in school. And it has to be this way: They must learn to compete, since after graduation not many of them are going to get their place in the sun without fighting.

However the level of competition should not exceed a certain threshold, otherwise the students may tend to push aside others in their struggle for the needed resource. Such behavior becomes a hindrance to the learning process and inevitably results in conflicts that end up involving teachers, parents, and other students. To avoid such conflicts, some intervention is needed.

As a psychologist, I worked for a few years with high school students within a sex education program for boys. At the beginning of our work a predictable problem emerged: the first 10–15 minutes of each session were spent entirely on self-affirmation. The boys were showing off and "strength testing" me. Only after they had affirmed their positions in this competition for prestige among peers, were they ready to start working. As the entire course was only eight hours long, it would have been costly to waste an hour or two on these "male games". I had to find some way to make this ritual serve our long-run objectives.

Having considered several possibilities I decided in favor of the popular game "Mafia". If unfamiliar, its rules may be found in the Internet—http://en.wikipedia.org/wiki/Mafia_(game). Now at the beginning of our sessions, instead of squabbling and exchanging caustic remarks, the teenagers were busy finding out who were more resourceful, observant and eloquent, the Mafia or the Townspeople.

How did I benefit from this activity?

As the division of the class into either Mafia or Townspeople was based on chance, the class leaders were placed on par with their less popular, or lower-status peers, creating favorable conditions for further teamwork. The boys' need for self-affirmation was satisfied, and the activity enabled me to transform what had been blunt competition among the students into a cheerful game which was satisfying to win, but not hurtful to lose.

Employing the natural tendency of students to compete with each other (instead of checking them all the time in a vain effort to restrain the rivalry) and making their competition work in a more productive direction – this is what seems to me the best solution for school. How this can be achieved in a particular classroom depends basically on the teacher's choice, students' age, and the subject taught. Of course, the teacher will first have to find time and select the methods and materials that would best fit the purpose, but consider the amount of time and strength it will allow you to save in future! Try it out; I'm sure you'll soon see the benefits.

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It was not long ago that a school had only to impart a certain amount of knowledge to its students, without caring too much about the future successes of its graduates. Today, the situation has changed greatly. It's not that knowledge has decreased in value, but rather that expectations have increased. It is no longer considered sufficient to possess a store of knowledge—an individual today should also be able to analyze facts and draw conclusions, be fluent in several languages and comfortable with modern technologies, and have the social skills necessary for team work. Competitiveness, the ability to demonstrate that "I'm better than the others," is no less important; and to compete successfully requires skill in defining problems and finding imaginative solutions. A piece of advice sometimes attributed to Einstein is relevant here: "We can't solve problems by using the same kind of thinking we used when we created them."

To fulfill both the requirements of the time and the needs of the children, schools will certainly have to incorporate elements of competition into the teaching/learning process; this can be done by means of business games, or classroom discussions, or student government. Students need to learn not to be afraid of competition; they should know their own worth and be able to accurately assess their own abilities. This is a difficult task, and teachers who want to help students cope with it will have to be highly professional, intellectually flexible, and resourceful.

In the school where I work, elements of competition are a part of our curriculum. We arrange annual intramural competitions—we call them *project days* or *theme weeks* (the latter being devoted to particular disciplines); our students also participate in Moscow citywide contests and interdisciplinary tournaments (such as the Lomonosov Science Tournament), where the prizes include inter-national travel and invitations to participate in international competitions. This is a good incentive not only for the participants, but for their friends too. Even students who have never shown much interest in learning tend to become motivated when they see that their friends' efforts have won them recognition, both inside their own school (which is important enough!), and beyond.

Another serious incentive for our students is our four-month international exchange program with a U.S. school in Detroit. As with similar programs in other parts of the world, it is our best students who are given the opportunity to participate. Now that our first exchange students have returned home and shared their impressions of their trip, we notice that many of the other students are inspired to do their best, in both academics and extracurricular activities. They realize that if they work hard, striving to improve themselves and surpass their classmates, their efforts are not wasted. Along with their teachers' and parents' praise, and a possible trip to another country, an important bonus is their own growing confidence and self-reliance.

Thus, the often abstract and intimidating term competition is understood as something concrete and accessible, and can encourage students to make the most of their abilities and resources to become better—to become the best.

Photos from the authors' archives

Gerald W. Neal

Elitism and Competition in School Sports: Losing Children to Win Games

Photo from the author's archive

Gerald W. Neal *is the author of* Quiet Desperation: The Effects of Competition in School on Abused and Neglected Children, *and an Adjunct Professor at Pfeiffer University, North Carolina, USA.*

The Problem

When is competition a problem? What role should competition play in school sports programs? What are the benefits? The costs? Who *loses*? In this article, I raise and examine these issues, and argue against the all-too-common situation where young athletes are manipulated by adults so fixated on competition that they no longer question its impact on those children. I challenge the assumption, widely accepted in some contexts, that young adolescents need competition to grow stronger, and to develop athletically and personally. The problem is worse in those societies—my own being a case in point—that have allowed competitive sports to infiltrate the educational system to such a degree that interscholastic athletic events, held as early as the sixth grade, are turning children into fierce competitors.

"Children are being compelled, at younger and younger ages, to view sports participation as a win-lose proposition (Fine & Landers, 1996)." (Jonas, 2002). According to the US Drug Enforcement Administration (2007), a half million eighth and tenth grade students in the United States use anabolic steroids to enhance their athletic performances. Blinded by the pressures to succeed, these school-aged children willingly poison their bodies, reducing their chances of leading normal lives after leaving the sport. The priorities of competitive athletics can generate "'[h]ypercompetitive' individuals [who are] focused on winning at all costs, using manipulation and aggression towards that end" (Jonas, 2002). These athletes contrast markedly with those who have a "personal development competition orientation," who seek "enjoyment and mastery of the task," and regard fellow athletes as "helpers who provide personal discovery and learning opportunities'" rather than as opponents to be bettered (Jonas, 2002).

It may seem that schools have the power to protect students from these competitive pressures. However, in the United States it is not difficult to find schools that not only encourage a "win at all costs" orientation, but also include competition as a major component of the curriculum. Highly competitive interscholastic competition is widespread by the time children reach middle school, at age 11.

Some educational leaders, coaches, and communities fail to realize that, in addition to athletic skills, competitors need a system of support and a sense of belonging. In the adult world, failing to get a job, losing a big account, being outperformed by coworkers, and not making as much money as friends and family are rather traumatic. Children are developing self-esteem and curiously attempting to explore interests. They develop at different rates, both mentally and physically. During their early years, young children's self-esteem is based largely on their perceptions of how the important adults in their lives judge them. The extent to which children believe they have the characteristics valued by the important adults and peers in their lives figures greatly in the development of self-esteem. "For example, in families and communities that value athletic ability highly, children who excel in athletics are likely to have a high level of self-esteem, whereas children who are less athletic or who are criticized as being physically inept or clumsy are likely to suffer from low self-esteem" (Katz, 1995). When public schools sanction the practice of cutting or benching young athletes, so they have little hope of participation, the children become demoralized. In this context, schools hinder the process of developing resiliency and actually damage self-esteem.

Athletic Darwinism

Almost all of the advocates for elitism in school athletics (although they do not commonly call it that) fail to consider the impact of the activity on the rejected child. They focus instead on the purported benefits of competition, on building cooperation and teamwork, and on the accomplishments of those who are successful. These children are adored and cheered. Banners of victory are draped in school gymnasiums, and trophy cases full of autographed championship footballs, basketballs, and team photos line school hallways. These children are the winners, the success stories that make adults feel good about the substantial amounts of money spent on team sports in many schools.

But there are no winners without losers. And losing is frequently accompanied by humiliation and ridicule.

Ron, a friend of mine who coaches secondary school athletics, described how his son's middle school basketball team once lost to a superior program from another county by the score of 46–0. The opponents left their starters in even at the end of the game to preserve the shutout, undoubtedly seeking notoriety at the expense of the other team's players. They celebrated their accomplishment in front of the losing team by dancing on the court, to the applause of parents and other adults in the stands. Ron's son and his teammates had to endure jokes and jeers at almost every other school on their game schedule. Some players quit the team, leaving a 12-person roster with only seven players by the end of the year. Even many of the players who remained do not intend to play organized basketball again. They see themselves as public failures.

To see who actually encourages competition in sports, watch parents and other adults at school athletic events. Notice who is actually fixated on the scoreboard. Watch to see who cheers when a player on the opposing team makes a mistake. Observe the adults yelling at referees long after a bad call, while the players accept the decision and continue play. Listen to a parent consoling a child after a defeat, attempting to put the event in proper perspective, but ironically managing to emphasize that it was *a defeat.* In a survey cited in "The Case for High School Activities," "Winning was not seen as a major benefit of sports by young people who participate — it was ranked No. 8 by the boys and No. 12 by the girls" (National Federation of State High School Associations, 2006). The report added that intrinsic rewards outweighed the extrinsic ones for those surveyed, with the most significant reward being "self knowledge." If winning is not a primary factor for the students, does this then suggest that the pressure to win originates with adults?

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Sports psychologist Terry Orlick points out that 80 to 90 percent of all children opt out of organized athletics by the age of 15 (Kohn, 1986, p. 94). For many, their love for sports is lost during middle school. When they are eliminated from teams they wished to join, their sense of belonging is ripped away. Yet often they must continue in physical education classes taught by the same teacher who dismissed them from the team. Frankly, it is cruel. And ironically, they are the very children who most need what sports have to offer.

Money Talks

What does it say about priorities when parents are willing to pay five dollars a game in a 20-game season to watch their athletic prodigies, but find shallow pockets when the Parent-Teacher Association (PTA) asks them to join for a one-time annual fee of $10? What can we conclude when sports events attract more adults to the school than an open house or an international night?

During one of my son's middle school basketball games, I spoke with the athletic director and asked him about the budget. He explained that the admission fees (three American dollars per person) do not come close to covering all of the expenses. He listed uniforms (including cheerleaders'), basketballs, referees, insurance, coaching salaries, warm-up uniforms, and transportation. He went on to explain that for [US-style] football, it costs about $200 to equip one

player, and the team had around 40 players. There are other sports that must be funded, such as volleyball, baseball, and softball. Officials cost the school up to $200 for each game. In all, my son's school spends about $10,000 per year on athletics (uniforms and some other equipment are not purchased new every year). The school raises only an estimated $5,000 through admission charges and concessions. In a neighboring urban school district, they offer more sports and do not charge admission. It is common in the area where I live for a middle school's annual athletic budget to exceed $20,000.

These monies are derived from local taxes targeted for education, because athletics are deemed an integral facet of the middle school experience. And therein lies the injustice that many no longer question: Money earmarked for the public schools— where, according to the rhetoric, equality is promoted and discrimination shunned—is used to fund elitist sports programs that degrade and humiliate many children through a process of competitive elimination. Essentially, taxpayers are funding the purchase of uniforms that their children are not permitted to wear unless they have sufficient athletic ability. These parents are actually paying to have their children serve as sacrificial lambs for the values associated with athletic competition and a lust for victory.

When schools promote activities that select one group of students over another, when rejection is allowed within the walls of a school, then something fundamental about the mission of those schools has been corrupted. The argument that all have an equal chance rings hollow.

The Solution

What can be done? First, the United States can learn from other countries, especially from those that have experienced some of the ill effects that go along with targeting small children for athletic roles. During the Soviet regime, the Russian sports establishment learned that early specialization results in a much higher incidence of over-use injuries and mental burnout, as well as a great deal of inconsistency in an athlete's performance. (Ferruggia, 2007). The experience of such countries as Russia and Bulgaria might be helpful.

In my opinion, much could be gained if inter-school competition were de-emphasized, and a broader array of participatory options made available for all who wished to join in. Quite simply, schools should field a variety of teams so all who wish to can enjoy participating. It's reasonable to predict that sponsors would gladly contribute to such a worthy cause. The schools could make their facilities available, enhancing community relations. With inter-school competition limited, the children are more likely to know players on the opposing team, and to be playing against friends rather than strangers. Familiar faces ease the anxiety of competition and keep the event in proper perspective. Friends are less likely to try to humiliate one another. They are more willing to respect their opponents and practice good sportsmanship.

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I watched my son's middle school basketball team play Ron's son's team, the team that had suffered the embarrassment of a 46–0 shutout. My son and his teammates, many of whom were friends with members of the downtrodden visitors, won

Recently I had a discussion with Ron, a friend and coach, about the upcoming football season. A former high school and college football player myself, I became somewhat confrontational, and asked him a series of questions whose answers revealed some rather disturbing premises underlying our school athletic programs. After Ron established the fact that the ultimate goal was to win, I asked him to participate in a question and answer session for posterity's sake. He agreed.

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Q: Is winning the only measure of your football team's success?
Ron: Pretty much. That is why they hire you and that is why they fire you. The community expects it. There is a lot of pressure to win.
Q: Is winning the only thing players get out of football?
Ron: Not at all. They get the experience of working as a team, you know, a group effort that rewards them for all the hard work. It builds character and teaches kids to reach beyond what they thought they could do. They get stronger and learn what competition is all about.
Q: What if they don't win?
Ron: We work harder. They have to reach down in their hearts and find the extra effort. That is what a coach does—makes men out of boys.
Q: What if they give their best, find the extra effort, become men, and still lose?
Ron: Then as a coach, I have to re-examine my approach. I have to do a better job of utilizing my talent.
Q: How do you motivate players to work harder when they lose? Is there ever a time when they give up?
Ron: Unfortunately, yes. Some without character will quit. Nobody wants to be a loser. They have to hear the jokes at school, comments from rival teams, boos, and that stuff.
Q: How do you motivate the player on the bench who never gets to play?
Ron: He learns to help the team at practice. They make the starters better by practicing against them hard. They know that they might get some playing time if the score is lopsided or somebody gets hurt. He accepts his role.
Q: What does getting cut from the team do to that child?
Ron: My job is to win and I focus on the players who make the team. If the kid wants to be on the team, then he needs to work harder.
Q: Have you ever been cut? If so, how did you respond?
Ron: I was never cut, but I walked on at East Carolina, trying to make the football team. I quit after two weeks because I knew I wasn't going to ever play.
Q: Why didn't you work harder, reach down into your heart to find the extra effort?
Ron: Because I was never going to play on that team. I could have trained for a million years and not been good enough. I see where you are going with this.
Q: How did it make you feel?
Ron: Honestly? Like it was over for me. I was upset at first, and empty. I felt like a part of me died when I realized that I would never play organized sports again. That is why I coach.
Q: Last question. You were an adult then. What effect does not playing or getting cut have on a middle school student?
Ron: Probably the same. Probably worse.

easily but played the game in a manner that preserved the dignity of their opponents. They were supportive, sportsmanlike, and smiled throughout, as if to let the opposition know that it was only a game. The parents and other spectators seemed to notice. We started applauding the weaker team. When they scored six points in a row, the entire gym was ecstatic, with fans from both sides cheering the visitors who had not won a game all year. My son and his teammates were giving them "high fives" and yelling compliments. My son's team won by about 20 points, but by the end of the game the scoreboard was nothing more than a wall decoration. Nobody discussed the score after the game. Instead, members of both teams went to a fast-food restaurant and ate dinner together.

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Boys and girls from both sides laughed—they were already beginning to exaggerate the difficulty of their shots, or how the referee missed an obvious foul. For one evening these children were allowed to have fun because the adults seemed to remember what competition is supposed to be. The children fed off that energy.

Imagine the middle school programs in a particular district adopting a different approach to athletics. A large school, School A, might field three teams in a given sport; and rival School B might have four. School C, a smaller school, might have two teams. This adds up to nine teams among these schools, creating a conference with a three-school radius. Since there were eight schools in the conference before, this structure cuts down on travel considerably. And now a smaller school can compete with larger schools, because the number of teams from each school is proportional to the number of students. If local civic organizations or businesses sponsor the teams, the uniforms, referee salaries, balls, and other costs can be funded through donations and fund-raisers, so expenses are paid only by willing participants, not taxpayers. Admission fees could also be used to raise money. Schools could offer the facilities, perhaps a bus and driver, and nothing more, leaving a bigger percentage of their budgets for academics.

Arguments against this arrangement would likely reveal unquestioned devotion to competition among schools, even at the expense of children who, according to the coach, don't meet minimal standards. Athletics have a lot to offer, but all children who want to to experience these benefits should be able to participate. Schools should strive to ensure that their students develop a sense of belonging, pride in their contribution to a team, and most importantly, greater self-esteem. This is how schools will win every game they play.

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Viviene A. Temple

Mastery-oriented Competitive Climates: Better Practice for Schools?

Photo from the author's archive

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Competition is neither inherently good nor inherently bad. The interaction between children's physical, psychological, and social development and the social climate of competition will determine whether the competitive experience is likely to be positive or negative.

A few years ago I was asked to consult with a community track and field association. The association was very concerned that more than 50% of children (aged 5 – 13 years) who registered at the beginning of the season dropped out after only a few weeks. It didn't take long to identify some of the major issues. The primary activity of the association was their Saturday morning competition, where children generally competed in four or five events. They would run some races, long jump, and perhaps throw the discus. The distances, times, and results (1st, 2nd, etc.) were duly recorded. Some clubs in the association offered practices during the week, but very few children attended. They just returned each Saturday to compete in many of the same events. Not surprisingly, the child who had placed fourth in the 50-meter race last week placed fourth again this week, and was likely to place fourth next week. The parents might rationalize with the *child—she* was the smallest in the race, she had run faster than last week, she was just learning, running is good exercise regardless—but from the child's perspective, she lost. This type of social comparison (i.e. how children perceive their performance in comparison to their peers) can undermine children's intrinsic motivation to participate, particularly if they do not perceive themselves as competent in the activity.

Competitive physical activities can be either performance-oriented (also called ego-oriented) or mastery-oriented. *Performance-oriented* environments define success as being "the best" or defeating an opponent; emphasize external reinforcement such as social approval or rewards; and give rise to children judging their competence (or lack of it) through social comparison. The downside of perceiving competition as social comparison is that when children don't compare favorably, they lose motivation. An experiment in the 1980's illustrates the impact that even indirect social comparison can have on children's motivation. Researchers (Vallerand, Gauvin, & Halliwell, 1986) constructed a situation in which fifth and sixth graders competed indirectly in a balancing task. Half the children were told that they had won, i.e. they were the best (whether they were or not), and half were told that they were not the best. The children were then able to play with the balance apparatus or with other toys for five minutes. The children who "won" spent three times as much time in the next five minutes practicing the balance task, and their perceptions of their competence were higher. Those who "lost" were not motivated to persist.

Indirect and direct social comparisons in the physical domain are especially powerful because the activities are very public. Just think about children running the 50-meter race. It is obvious who finished first, second, third, etc., and who finished last. When children are placed in a situation where the demands (in this case, the need to demonstrate competence in a competitive situation) outweigh their ability to respond (i.e. they lack the skills to play), they can become stressed and may withdraw from the activity. Children who do not win can perceive themselves as less competent, and therefore have lower intrinsic motivation. Loss of intrinsic motivation decreases their desire to "stick with it" and the effort they put into mastering aspects of the activity. A negative cycle is created: The child perceives that he or she has failed, therefore does not persist, and has little opportunity to acquire the skills needed for success. If placed in a similar situation, the child will likely fail again.

In contrast, mastery-oriented environments promote intrinsic motivation. *Mastery-oriented* activities promote learning, effort, and self-improvement, and mistakes are viewed as opportunities to learn (Weiss & Williams, 2004). Perceptions of ability are self-referenced rather than external, and the goal of competition is to meet personal and team challenges rather than to defeat others. Research consistently demonstrates that children are motivated to participate in sport and physical activity to develop physical competence; for affiliation, social acceptance, and approval, and to

have fun (Weiss & Williams, 2004). These motivations are consistent with a mastery-oriented context rather than a performance-oriented one.

The etymology of the word compete is to strive in common (Harper, 2001), and competitive contexts can be mastery-oriented. Mastery-oriented climates are created by setting appropriate challenges that can be achieved through individual hard work and improvement, rather than challenges that depend on outcomes outside the child's control (such as beating an opposing team). By providing specific and constructive feedback, adults teach children that mistakes are part of a learning process; and by asking children more than "Did you win?" we model the importance of hard work and mastering skills (Daniels, 2007).

The track and field association I mentioned earlier had to completely rethink their Saturday morning experience for children. Instead of competing for time, place, or distance, children were provided with opportunities to develop specific skills. As they acquired these skills, the children earned mastery certificates, and could move to the next level. In place of individual competition, small teams were created. Teams could decide who would participate in which events, and participation, as well as the result, contributed to a team's score. This initiative made a great deal of difference to the children's experience of track and field (Temple & O'Connor, 2001) and the model was subsequently adopted state-wide.

Schools have the responsibility to foster the development of *all* children, not to privilege some children at the expense of others. With this in mind, it is difficult to see how a performance-oriented competitive climate has a place in schools. Except for those who win, performance-oriented climates do not promote a lasting interest in physical activity, motivation, or perceptions of competence. Many developed nations are experiencing a crisis of physical inactivity and obesity, and schools certainly don't need to contribute to these problems. If competition is to be part of school sport or physical education, then schools should foster mastery-oriented conditions. Schools are well placed to do this because student well being is of central importance in educational environments. A mastery-oriented competitive climate emphasizes skill improvement and enjoyment of the physical activity, and fosters personal and team goal achievement, and a cooperative spirit to overcome challenges. This type of climate teaches students that through hard work and effort they can become competent and achieve. They learn that although comparing their performance with that of their peers is natural, it does not define their competence. In the long term, children who feel competent in a physical activity, even though they may not be the best, are the most likely to want to persist, play, and compete.

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