Watering Up the Curriculum for Adolescents with Learning Disabilities—Part 2

Goals of the Affective Dimension

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ABSTRACT

This article addresses issues associated with common pedagogical practices that impede affective development of adolescents with learning disabilities. It also outlines goals, principles, and techniques for “watering up” curriculum and instruction so that intrinsic motivation, internal locus of control, academic and social self-concept, self-esteem, a sense of competence and confidence, an “attack” attitude about challenging tasks, willingness to take risks, and sense of personal potency are fostered.

Although the literature concerning education for adolescents with learning disabilities has focused almost exclusively either on the development of academic and social skills, strategies, and knowledge, or on enhancing their motivation to learn them, there is a great deal more that occurs in classrooms that has a substantial impact on students’ lives well into adulthood. To adolescents, school is largely a social phenomena, and when they are asked to describe important features of meaningful schools, neither instruction nor curriculum is of much concern to them. Instead, “having fun” and “hanging out with friends” are typical initial responses from students. However, in-depth explorations reveal much more substantive student perceptions, and most center around needing a sense of social and emotional security. Arguably, the degree of social and emotional security these students carry into adulthood will have an impact on their future success far more than knowledge of social studies, biology, algebra, or the other curriculum taught in secondary schools.

Although historically it has been the responsibility of educators to teach academics as prescribed by mandated curriculum, the environments teachers create for students may ultimately have a considerably more substantial impact on their lives than the academics they master. Ignoring academics clearly would be amiss and ignoring the affective development of adolescents with learning disabilities (LD) would be equally inappropriate. The affective dimension includes factors such as intrinsic motivation, internal locus of control, academic and social self-concept, self-esteem, a sense of competence and confidence, an “attack” attitude about challenging tasks, willingness to take risks, and a sense of personal potency. The challenge, therefore, is how to meaningfully teach academics, while ensuring that students substantively and positively develop in the affective dimension. Figure 1 shows goals of a watered-up classroom.

GOALS OF A WATERED-UP CURRICULUM

This article focuses on the affective goals of a watered-up classroom (see the right column of Figure 1). Although for the purposes of discussion, knowledge goals (see Part I in RASE Vol. 18, No. 6, for a discussion of knowledge goals depicted in the left column of Figure 1) and affective goals have been artificially segregated, in reality they are integrative and reciprocally influence each other. The various
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**FIGURE 1.** Goals of a watered-up curriculum.

affective goals discussed in this article are artificially segregated and integrative as well. Thus, each affective goal is discussed and is illustrated by a sample of instructional procedures that simultaneously addresses both academic learning and the affective dimension of the environment. There are many affective goals of a watered-up curriculum. Five such goals are discussed as follows.

Keep in mind that these are goals that are never really completely attained by anyone. All of us engage in some of these practices to varying degrees. As dedicated professionals, we are constantly striving to create a better place for students to learn. These goals serve as key signposts leading to that better place.

**Watered-Up Goal 1: More Student Reflection, Risk Taking, and Active Participation**

Memorizing the teacher's words from a set of notes, definitions of terms, or details from a text chapter requires little reflection or risk on the student's part in relation to developing an understanding of a concept. The only real risk involved is putting energy into memorizing the wrong information for an upcoming test. More powerful learning occurs when students stretch their understanding and generate their own connections between ideas where many relationships are formed, and when awareness of many applications or extensions of the ideas are developed. This "stretching," however, requires students to take risks and, due to a history of academic failure, many adolescents with LD are unwilling to do this because they do not feel safe in doing so.

In creating watered-up learning environments, teachers strive to create settings where students feel safe to take risks with their understanding. One of the ways that teachers do this is to place less emphasis on dichotomous evaluation where students' responses are either right or wrong, and greater emphasis on moving students from erroneous to more sophisticated, precise, and accurate understandings. Shifting the emphasis creates a safer learning environment because the risk of failure is reduced considerably (Newman & Wehlage, 1993).

Reflection is a powerful tool for developing deep knowledge structures, but promoting it can be considerably more challenging than creating situations that require students to memorize answers for tests. Important reflective processes for learning and performing include activating background knowledge, forecasting, anticipating and predicting, establishing goals, relating ideas, and recognizing manifestations of ideas as they appear in other forms and how ideas might be applied in various contexts.

For a number of reasons, reflective risk taking can be greatly enhanced if students are interacting. There is safety in numbers; thus, a group of students is considerably more...
likely to take risks and stretch their understanding of a concept and make many and varied connections to other ideas as they discuss the concept. In groups, students tend to cue and spur each other's thinking. Likewise, group interaction processes often allow some students with limited basic skills to more fully participate. Although collaborative group instruction often fails when the student with LD is considered a liability to the success of the group, reflective risk taking does not involve dichotomous responses. Therefore, these kinds of group tasks do not put the group at risk because one of its members has weak literacy skills.

The more students participate, the greater the elaboration of the concept, which in turn results in enhanced understanding of a concept. Participation is enhanced if the academic task is interesting to students, and one of the ways to make tasks more interesting is to design them so that students put their own interpretations on key to-be-learned concepts. Creating these opportunities while ensuring that these interpretations are accurate can be a significant challenge for educators. The instructional routine described as follows is an example of a group task that requires reflective risk taking and the formulation of nondichotomous responses that focus on developing more sophisticated understanding of the subject matter.

Example: What If...? The "What if...?" routine (see Figure 2) is an example of how reflective risk taking can be encouraged as students are learning concepts (Ellis, in press-a). The activity requires that students use both their background knowledge and recently acquired information to form predictions about how the world might be different now if a different set of circumstances occurred at some point in history. It can also be used to facilitate understanding of social interactions and consequences of behavior when providing character education.

The main idea of the key concept and related details are listed on the top half of the graphic as this factual information is explored in class. This information developed in a variety of ways, including (a) the teacher providing direct explanation of a concept, (b) the teacher and students co-constructing the graphic as the information is being explored, (c) collaborative groups of students co-constructing the graphic, or (d) students constructing the graphic as an independent assignment.

Once the top half of the graphic has been developed so that it reflects accurate information about the subject, the teacher can pose a What if...? question, and students then work collaboratively to form responses to it and later share their responses with others. As an alternative, teams of students can generate a What if...? question that is then passed to another team who must formulate a response and then explain it to the original team.

The process of formulating responses to What if...? questions provides opportunities for students to reflect on what they know and have recently learned about the topic, and take risks by forecasting what might happen under different circumstances. There are no right or wrong answers to forecasts; what is important is that students develop a sense of safety in taking risks with their understanding and extrapolations of ideas. Also important is that students increasingly develop their skills in elaborating their forecasts and providing a rationale for them.

In Figure 2, the top half of the What if...? graphic depicts key ideas associated with John F. Kennedy's (JFK's) social policy with regard to the Civil Rights movement of the 1960s. The top half was co-constructed by the teacher and the students after source information (films, readings, etc.) was explored. Once the basic ideas of JFK's social policy had been taught, the teacher then posed a What if...? question, and each group in the class had to formulate a response by forecasting. Group responses were then shared and debated in class.

Although the example in Figure 2 addresses social studies instruction, the same procedure can be used when exploring current events or key events from literature or science and when exploring the social dynamics of events that may be occurring in students' personal lives. Likewise, the procedure can be paired with Risk-Taking Analysis (see Ellis, 1997) when exploring various options associated with making a decision. Thus, an important feature of techniques such as the Risk-Taking Analysis (Ellis, in press-b) and the What if...? is that they can be used to facilitate understanding of academic concepts and social dynamics, and that the act of engaging in the procedures fosters key affective elements of development such as reflective risk taking.

Watered-Up Goal 2: More Emphasis on Developing Social Responsibility and Collaboration Skills Among Students

As noted previously, meaningful learning is more likely to take place in environments in which students feel safe and thus free to take risks with their understanding and not feel inhibited or punished for doing so. In classrooms in which cooperative learning is employed effectively, students with LD usually engage in these activities with enthusiasm and risk taking (Schrag, 1993). They seem to wrestle openly with ideas and are less concerned with generating the "right answer." They also engage in the give-and-take exchange of ideas with other students, challenging ideas others put forth, and accepting others' challenges of their ideas.

"Effectively employed" means the teacher is highly competent in applying cooperative learning techniques, which in part includes team-building activities to promote acceptance of students with disabilities (Gibbs, 1994), using cooperative learning activities appropriate for use with heterogeneous groups of students (some cooperative learning activities are not), as well as cooperative learning tactics appropriate for the nature of the learning task (Kagan, 1992; Margolis & Freund, 1991). In the absence of this expertise, cooperative learning can be a disaster for students with LD, especially in settings involving heterogeneous groups. In these instances, many students with learning problems generally seem to work
Ordered government to change policies to comply with existing anti-discrimination laws

Used FBI to investigate KKK; used National Guard to protect Civil Rights protesters

Opposed actions of racist state & local gov. officials (governors & mayors)

JFK's Domestic Policy Theme: Social Justice

Wanted to end government-sponsored discrimination & use the power of government to reduce racism

What if....

...JFK had been afraid to "take on the racism issue" for fear of losing political support?

Would have resulted in even greater violence toward protesters

MLK's "peaceful resistance" would have been a 'joke'!

Civil Rights movement might never have succeeded

USA might be like South Africa (apartheid)

Problems with racism today might be 1,000 times worse! No respect or valuing of cultural differences

Schools, neighborhoods, businesses might be still segregated today

USA Very Unsafe --probably be a lot more terrorists attacks (like in Ireland) today

FIGURE 2. Sample “What if...” graphic organizer used to facilitate understanding of JFK’s domestic policy. (Copyright 1997 by Edwin S. Ellis. Reprinted with permission.)
at being as invisible as possible, and they seem reluctant to engage in or participate in class discussions. The type of risk taking and give-and-take exchange of ideas between students with LD and the more capable learners rarely happens (cf. Ellis, 1989, 1993). The more capable students tend to delegate duties on cooperative learning tasks that require minimal thought to the less capable learners, if they are included at all. Not only do these students tend to be excluded from “true” participation in these activities, but they often are punished by their peers (via negative comments and “dirty looks”) for attempting to participate. Data from observations in elementary schools parallel this observation (Vernon, Deshler, & Schumaker, 1994).

In contrast to the above problem, many secondary teachers avoid using cooperative learning because they do not believe their students are able to work together effectively. There is a belief that students lack the necessary social skills for working collaboratively and that students have substantial racial or other prejudiced beliefs (i.e., hostility toward the disabled) and attitudes that make cooperative learning seemingly impossible to use. Although there are always extreme circumstances in which cooperative learning is difficult to implement, a great many of the circumstances in which teachers avoid cooperative learning are due considerably more to teachers’ lack of knowledge in how to use cooperative learning effectively (i.e., how to match instructional goals with appropriate cooperative learning tactics, how to structure and manage the activities) than to student characteristics (for a review, see Cohen, 1994a). Unfortunately, avoiding use of cooperative learning only results in an environment of reduced opportunities for students to learn essential life skills for collaborating with others as well as reduced opportunities for elaboration of to-be-learned concepts.

In many cases, students have to be taught how to work together. Like most new skills, learning to work together is something that occurs gradually with much practice and feedback. Teachers striving to provide watered-up classrooms recognize that teamwork is something that is gradually developed and they give themselves permission to allow students to work together imperfectly as they are developing those skills.

Teachers striving to provide watered-up classrooms do not just focus on enhancing the academic and thinking skill curriculum; they also water up the social curriculum. Like the specific cognitive skills that are integrated into academic skills and knowledge instruction, specific social skills and values are also targeted and explicitly taught in an integrative manner. Examples of social skills targeted in watered-up classrooms include the following:

- Offering and providing assistance
- Recognizing and celebrating the successes/talents of others
- Recognizing, but not judging, differences in personal characteristics
- Providing positive and critical feedback
- Avoiding inflammatory/insulting statements
- Building consensus
- Resolving conflicts peacefully
- Encouraging others to do the “right thing”
- Resisting irresponsible peer pressure

Some adolescents with LD may require intensive social skill interventions where specific social skills or strategies are targeted and extensively taught. However, all adolescents, including those with LD, should receive instruction in social dynamics and be provided with classroom environments that are conducive to learning and practicing them with feedback.

One of the reasons group dynamics sometimes fail involves risk taking. When a group lacks knowledge of the procedures for completing a task, confusion accompanied by frustration ensues, and group dynamics often turn hostile. Less capable students in the group often turn scapegoat and, as such, become the targets of hostility. Thus, although it is often advantageous to create circumstances that require students to “figure it out for themselves,” too little direction from the teacher often results in chaos, and students with LD often suffer the most from it. A key consideration associated with use of group projects is providing students with sufficient direction to allow the group to function effectively. The trick is to scaffold this assistance so that sufficient structure is provided but not so much that student risk taking and self-directed learning is impaired (Cohen, 1991, 1994b). The instructional routine described provides an example of how common classroom tasks, such as group research projects, can be structured, while emphasis is also placed on setting goals and practicing key collaboration social skills.

Example: PROJECT a Project: A Planning Strategy. Student-directed learning via frequent group projects characterizes watered-up classrooms. The “PROJECT a Project” strategy (Ellis, in press) is an example of how to promote effective project groupwork (Figure 3).

To complete the first component, “Preview the task,” the team analyzes the task parameters to anticipate the audience and goals for educating the audience as well as to clarify expectations regarding the nature of the project, how it will be evaluated, due dates, presentation and content expectations, as well as expectations regarding collaboration and individual accountability.

To complete the second step of the strategy, “Rough out a plan,” the team can use the planning form illustrated in Figure 4. The device is designed to structure the overall plan
Rough-out a plan

Overview of basic Topics and Subtopics (tentative)

How to make “peace” instead of making war --

The Peace Corps

Why

What

Who

How

Why the Peace Corps was created

What the Peace Corps is

Who its for

How the Peace Corps works

What the Peace Corps does

Who created it

Who funds it

How somebody joins the Peace Corps

Who works in it

Basic plan for Investigating, Experimenting, and/or Inventing

* Check with Karen’s mom (she was in the Peace Corps)
* Grolier’s CD Encyclopedia * World Book
* Text
* Net?
* Call the United Nations?
* Library (books or films?)
* Library computer abstracts?
* National Geographic

Truth or Myth Survey

(what students know about the Peace Corps)

Proposal for starting our own “mini-Peace Corps” at school

Tentative Plan for Presenting

Take a tour on the “Peace Corps train”

Whistle stop #1: Have students take the “Peace Corps Survey”

Whistle stop #2: Explain Peace Corps web

Whistle stop #3: Show home-made video about Peace Corps

Whistle stop #4: Read letters etc. from real Peace Corps members (Karen’s mom)

Whistle stop #5: Show collage - needs of community that a “Student Peace Corps” could help fix

Whistle stop #6: Present steps to creating local Peace Corps Clubs in schools

FIGURE 4. Sample “Rough-out a plan” planning form for a project about the Peace Corps. (Copyright 1997 by Edwin S. Ellis. Reprinted with permission.)
### FIGURE 5. Sample task-analysis planning form depicting various tasks associated with developing a project about the Peace Corps.

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### Watered-Up Goal 3: More Emphasis on Fostering a Sense of Personal Potency and Academic and Social Self-Concept

Ultimately, the success in school and in life in general will be influenced by the sense of personal potency students have about themselves. Personal potency means that students have a sense that they are in control of their destinies, and that they are positively influencing others and contributing to their world. It means that they feel valued and have a sense of belonging (Glenn & Nelson, 1987). There are a number of internal and environmental factors that interact to make the development of personal potency particularly challenging for many adolescents with LD. A few of these are briefly reviewed here.

1. Studies of self-efficacy indicate that many students with LD have low academic self-concepts, while beliefs about themselves in other areas (e.g., how they perceive themselves socially) tend to be more positive (e.g., Hiebert, Wong, & Hunter, 1982). Before we become too confident about the positive social status that these findings suggest, we need to carefully consider how school environments, particularly those associated with inclusive settings, can assault rather than enhance students' self-efficacy and sense of personal potency. Cooperative learning has often been touted as one of the mainstays of inclusive education, but if students with LD are made to believe that they are liabilities to cooperative learning teams because of their performance limitations, these circumstances assault the self-esteem of students because they feel both academically incapable and socially rejected. These students need an academic setting where they feel free to express their understanding about what they are learning without fear of ridicule from their peers.
2. General education classrooms with large enrollments of heterogeneous students seem to be at greater risk for developing debilitating academic self-concepts (Myers & Bounds, 1991). Clearly, some teachers (both general and special educators) create these types of environments. This illustrates that what matters is neither the label of the setting nor the teacher; what matters a great deal is the environment within the classroom.

3. Delays in the development of internal locus of control (for a review, see Bryan, 1991), coupled with common environmental responses to these problems, such as structuring the environment for the unorganized student, providing multiple reminders, and providing extensive use of extrinsic reinforcers, can foster dependency rather than develop a sense of personal potency (Dev, 1997; Ellis, 1986).

4. Enrolling students with low academic self-concepts in uninteresting classes in which the curriculum has been thoroughly watered down (or dummed down) may be debilitating. In an attempt to shelter students with LD from the pain of failure, some teachers provide them with little other than unchallenging tasks that require minimal persistence or effort. Success at easy tasks or on assignments that are not personally meaningful to the students are not likely to increase academic self-esteem but rather are likely to produce the opposite. Likewise, prolonged exposure to these kinds of environments teach students to expect little of themselves and manipulate circumstances so that others expect little as well. In contrast, environments should provide students with LD with a great deal of success at tasks that are personally meaningful and challenging and that require personal effort and persistence.

5. Teachers’ and parents’ efforts to shelter students with LD from pain and embarrassment by denying access or explanation regarding the nature of their disability, coupled with failure to include the students in a meaningful way in the development of their individualized education plans (IEPs) (Van Reusen & Bos, 1990), can impair the development of personal potency. An astounding number of students with LD enter college without having any real idea about the nature of their learning disability or with extreme misconceptions about learning disabilities (Nesmith, 1996). In the absence of accurate information about themselves, students are left to form con-
PROACT
A self-advocacy strategy

Plan
- Profile your strengths/weaknesses
- List problems of the specific situation
- Analyze why they are happening
- Note what needs to happen instead

Rehearse
- Rehearse explaining your disability
- Rehearse explaining how the disability is becoming a handicap
- Rehearse making the request
- Rehearse what to say if the response is positive & if it's negative

Organize
- Evidence of disability
- Letters from professionals
- Paper/pencil

Ask
- Ask if this is a good time to talk
- Bite something positive, your goal, problem and request
- Keep the focus on possible solutions

Confirm
- Confirm what you will do
- Confirm what the other person has agreed to do
- Confirm your appreciation

Think-back
- What was agreed to?
- What wasn't?
- Do you need to try again another time?
- Will the other person need reminders?
- What should be done differently next time?

FIGURE 7. PROACT self-advocacy strategy. (Copyright 1997 by Edwin S. Ellis. Reprinted with permission.)

Another example of a technique that contributes to the development of a proactive classroom atmosphere is providing instruction in assertiveness skills combined with strategy instruction. PROACT (Ellis & Nesmith, in press) is an example of a self-advocacy strategy (Figure 7).

The What if ...? form previously discussed (see Figure 2) can be used as a means for enhancing students' understanding of complex content-area concepts in conjunction with instruction in the self-advocacy strategy (Figure 8). For example, in the top half of the form, the student identifies the critical features of the problem he or she is experiencing. In the section labeled, What if ...?, the student notes the basic request that he or she plans to make. Noted on the bottom half of the graphic organizer is the rationale for the requests as well as the specific details of the request. Parenthetically, use of the same graphic organizer in widely different contexts and situations can promote cognitive flexibility and generalization.

The strategy can be taught to all students in the classroom, as opposed to just teaching it to students with disabilities. Use of PROACT can be paired with teaching decision making and thus facilitated throughout the curriculum. For example, at those times when students must seek permission to do something unusual, teachers can encourage students to use PROACT to form a rationale for the request and then

Example: Proactive Classroom Environments. One way to foster a sense of personal potency is to create a proactive atmosphere in the classroom. For example, the PROJECT a Project strategy presented previously is a procedure that can facilitate reflective planning that is proactive in nature. The “E” (“Examine obstacles and develop strategies”) step of the strategy is designed to enable students to anticipate potential problems associated with completing the project and to forecast possible solutions to these problems before they occur. The act of anticipating the problem can result in avoiding the problem altogether and, if the problem does occur, students will often have a means for immediately solving it rather than needing an adult to step in and solve it for them.
Note taking
- miss a lot of info
  Slow writer
- forget important info before I can write it

Takes me longer to read
Not finishing tests but I know the info

Don't do too well on writing assignments when I don't have much time

---

My learning disability causes me to do things more slowly, but I can still do excellent work

---

What if....

...you provided ways for me to get around my LD, but I still learned what I needed to?

---

NOT asking for easier tests or assignments

I can do a good job IF I have enough time

---

IF I can copy your lecture notes & overheads,
THEN I'll learn what's important

IF you give me un-timed tests,
THEN I can better show you what I really know.

IF you give more advance notice on writing assignments,
THEN I can do better work

---

FIGURE 8. Sample “What if...” graphic organizer used in conjunction with PROACT self-advocacy strategy. (Copyright 1997 by Edwin S. Ellis. Reprinted with permission.)
make the request in a strategic manner. For example, students can use the What if ... ? form to plan making a request for the teacher to use an alternative to the traditional unit test.

**Watered-Up Goal 4: More Social Support for Student Achievement**

Social support for student achievement not only means that achievement is valued, but it also means that the environment reflects these values and is conducive to emphasizing and reinforcing achievement (Newman & Wehlage, 1993). Watered-up classrooms are success oriented in relation to achievement, and there are several factors that make it so (Figure 9). These are briefly described as follows.

**Tasks Are Challenging.** As discussed previously, a sense of personal potency comes from tackling challenging tasks, and environments characterized by a plethora of non-challenging tasks can be very debilitating to affective development, lower academic self-concept, and cause students to become even more divested from school. The implication is that these students should also have challenging tasks, but this does not mean that the task should be uniformly the same for all students, regardless of ability. The nature of the task should be commensurate with the skills, talents, and abilities of the individual students. The most appropriate tasks seem to be those that cannot be completed without limited assistance from a more skillful or knowledgeable person (Cohen, 1991, 1994a). This assistance can come from teachers or even a more skillful student. When this scaffolded assistance is needed, the nature of the task is requiring students to “stretch” themselves, but it also ensures that students are successful under these circumstances.

An example of challenging tasks is providing students with opportunities to participate in research projects that require planning, investigating, and presenting. These kinds of activities address several critical “life skill” dimensions (e.g., collaborating, committing to quality, organizing, researching, communicating).

**Expectations Are High and Appropriate for All Students, and Instruction is Success Oriented.** Teachers who are striving to provide watered-up classrooms maintain high expectations of students of all abilities. This does not mean that the expectations are uniform, but it does mean that teachers expect all students to work hard, produce quality work, and develop sophisticated understandings of the content.

**Goal Setting Permeates the Learning Environment.** In watered-up classrooms, students and teachers are frequently setting goals and monitoring whether goals have been attained; goal setting and attainment are part of the ongoing daily dialogue in these classrooms. Generally, achievement goals are set in three areas: (a) understanding specific concepts or core ideas of the content curriculum; (b) learning and using specific habits of the mind, thinking skills, or learning strategies; and (c) developing skillful collaboration and social problem-solving skills.

Teachers in watered-up classrooms often set annual goals collaboratively with their class that are formally reviewed each reporting period (usually every 9 weeks). They also collaboratively set weekly and daily class goals. In addition, individual students set goals that are monitored, and self-evaluation is stressed.

**Students Are Frequently Evaluated, and Meaningful Feedback on Performance is Often Provided.** Student achievement is frequently evaluated in three areas: knowledge of the content, thinking skill performance (habits of the
mind, use of learning strategies, etc.), and social collaboration. Specific outcomes in each area are evaluated, and because of the emphasis on goal setting, students know what it is they are expected to learn and on what they will be evaluated.

There is little point in evaluating students if they are not provided with meaningful feedback. This means that teachers do not just show students what grades they made on quizzes and tests. They frequently conference to discuss the areas in which the student is doing well and provide additional coaching to ensure improved performance. For example, teachers frequently analyze work samples and use rubrics and/or checklists of critical skills to assess knowledge and performance. These devices are then used to provide students with meaningful feedback regarding their achievements.

Goodrich (1997) highlighted several advantages to rubrics. Because they make expectations clear, student performance consistently improves when they are used, and improved performance equates with positive affective development. Rubrics facilitate self-evaluation because they focus attention on critical features of performance, and thus students are better able to identify and rectify problems both in their own work and of peers’ work.

Unfortunately, students commonly equate grades with personal value judgments (e.g., an A means you are a good person who is highly valued by others, an F means you are a bad person who is not valued), and this spin on what grades mean can be extremely debilitating to the affective development of students. Thus, from an affective perspective, another valuable benefit of rubrics is that they put the focus of evaluation on improving performance and quality rather than assessing to formulate a grade.

Having students participate in the design of the rubric itself can be a powerful technique for increasing student investment in the academic task. Not only does it clarify expectations for the task, but the process of having students design the rubric gets them focused on what they think should be important qualities about a product (or its presentation) and, as a result, students tend to be a lot more naturally motivated to engage in the task because they are personally invested in it. As a result, the need for extrinsic rewards can be greatly reduced. The practice of having students design rubrics may be an important addition to the many variables that contribute to the development of internal locus of control.

In watered-up classrooms, teachers conduct many of the evaluations, but there is also a great emphasis on informal peer evaluation (e.g., use of peer conferencing). Wiggins (1997) recommended that the focus of peer evaluation be on consulting with the student-author of a product rather than judging it. He recommended that first the author emphasize what areas or types of feedback would be helpful, and then leave while the “consultants” (peer reviewers) individually analyze the product using a rubric. The consultants then meet as a team to both summarize feedback and suggestions, and rehearse oral feedback to be given to the author. In the second stage, peers provide students with positive and constructive feedback that target areas originally highlighted by the author. Wiggins (1997) recommended that the emphasis of the feedback be on providing guidance and helping the author solve problems so that the work can be improved.

**Achievement Is Celebrated and Communicated.** Achievement is publicly celebrated in a variety of ways. Examples include (a) publicly displaying students’ projects in display cabinets around the classroom, in the halls, in the cafeteria, and so on; (b) computing the mean score of the class on tests and publicly posting them (e.g., a teacher might post the following message on the door outside of her classroom: “First period class scored an average of 91.3 on our quiz this week! Second period scored . . . ”); and (c) providing a class party for increased class scores. Both teacher- and student-created awards for achievement are frequently given. These and various other ways that achievement is celebrated send the message to students that achievement is valued and reinforced.

**Achievement Is Possible for All Students.** Teachers striving to create watered-up classrooms make achievement possible for all students in three fundamental ways. First, they make the to-be-learned content accessible and meaningful to all students, but they do not lower their expectations for the content to be learned.

Second, they provide students with options/choices regarding various tasks and procedures so that students can use their unique talents and skills to both learn and demonstrate what has been learned. In other words, instruction is differentiated in a manner that focuses on students’ abilities, not their disabilities. Although options are provided, neither expectations regarding what should be learned nor the expectations regarding the quality of the product are lowered. The Talents Unlimited model (Schlichter, 1993; Schlichter & Brown, 1985) is an approach that is particularly conducive to this form of teaching.

Third, teachers use a variety of mechanisms and formats for assessing students because they recognize that some traditional measures may not accurately reflect what a student really knows about the content. Thus, performance-based measures, rubrics, interviews, portfolios, and other alternatives to traditional measures that do not focus on dichotomous evaluation (i.e., right or wrong answers) are frequently employed.

**The Learning Environment Is Conducive to Achievement Taking Place.** Teachers are constantly striving to make the classroom free of seemingly insignificant things that actually interfere greatly with learning (e.g., interruptions, student coming and going, behavior disruptions) so that students can achieve. They also resist the urge to control truly insignificant things (e.g., occasional off-task student jokes, off-task conversations when in cooperative groups, students with attention-deficit/hyperactivity disorder [ADHD] needing to stand and sometimes wander around the classroom) that may be irritating to the teacher but actually have little negative effect on achievement. Their classrooms
often appear noisy (a lot of student discussion in cooperative groups) and chaotic (a lot of simultaneous activity), but there is a clear sense of purpose, expectation, and organization that may not be immediately apparent to first-time visitors.

**Watered-Up Goal 5: More Intensive and Extensive Instruction**

Just as good instruction is good instruction no matter where it takes place (Bickel & Bickel, 1986; Englert, Tarrant, & Marriage, 1992), poor instruction is poor instruction regardless of whether it takes place in a pull-out special education program or in a general education classroom. Arguably, poor instruction is one of the greatest contributors to poor affective development of adolescents with LD. A significant body of research collectively shows that, above all else, the quality of interactions between teachers and students, regardless of their respective labels, is the single most predictive variable in successful classroom learning (cf. Kauffman, 1993). Good, quality instruction is considerably more important to educational success than the label a child or teacher is given or the setting in which instruction is provided.

Among the many specific techniques associated with improving the quality of interactions between teachers and students that are important for students with LD, a few seem to be particularly critical.

**Mediated Elaboration.** Many students with LD respond positively to instruction that causes them to elaborate on the information being learned, and the elaboration is mediated. This means that the teacher scaffolds the elaboration tasks by gradually increasing the expectations of elaborated responses and by creating an environment conducive to developing elaboration skills through various means. For example, the teacher asks many open-ended questions that require students to express their opinions, and to promote a more sophisticated elaborative response, the teacher provides spontaneous cues and hints to help the student recall, reflect, and express an answer. Another example would be that the teacher provides, in advance, structural cues for students to use as guides for responding. Following are two examples of structural cues that teachers might provide in advance to help students prepare for an elaborative response.

When discussing your invention, be sure to talk about

- Purpose (what it does and why it’s useful);
- Features (obvious and hidden features and why they are important); and
- Similar (what it’s like or similar to).

When describing your character, be sure to talk about

- How the character looked;
- What are some personality characteristics;
- Why the character is important to the story; and
- What you liked or disliked about the character.

Mediating students’ responses by providing simple structural cues, paired with spontaneous cues and hints given during the students’ responses, can greatly enhance the sophistication of students’ elaboration.

**Interactive Modeling and Coaching.** Students with LD seem to develop skills most readily in settings in which the teacher models skills while interacting with the student (describing, elaborating, questioning, and prompting) so that the student is actively responding about what is happening during the teacher’s modeling of the skill, as well as when students are engaged in the skill.

**Frequent, Meaningful Feedback.** For many teachers who are particularly concerned about students’ affective development, feedback is a sensitive area. The perception that corrective feedback is negative, and thus that it may damage self-concept and lower self-esteem, causes it to sometimes be avoided. Exorbitant amounts of exaggerated praise are substituted instead. Ellis (1986) noted that this practice can be detrimental in two ways. First, studies (Nichols, 1979) suggest that copious amounts of exaggerated praise tend to lower self-esteem largely because students recognize its intent. Second, depriving students of corrective feedback denies students extremely important opportunities to learn.

The nature of corrective feedback can be conceptualized as a continuum that parallels the development and sophistication of the learner as well as the learners’ background knowledge of the skills or concepts being learned. At one end of the continuum are students who have difficulty completing the feedback loop necessary to self-mediate the process because of a variety of cognitive dysfunctions (e.g., difficulty accessing background knowledge, short-term memory deficits, difficulty making connections and forming associations). In these instances, directive feedback is a crucial teaching technique. Here, the feedback provider explicitly identifies for the student the problem, recommends solutions, and then provides modeling and coaching in the application of the solution as needed. Directive feedback can also be useful for any student who is learning skills or concepts about which they have limited background knowledge.

Further along the continuum, feedback shifts from directive to mediated. Here, the feedback provider provides hints, questions, and/or cues to help the student spot the problem and formulate his or her own solutions. It is critical to understand that although this may be the preferred mode of feedback provided by educators invested in constructivism, this form of feedback is effective only if the questions, hints, and/or cues result in students relatively quickly gaining insight into the problem and either correcting it or inventing alternative ways of addressing the problem that are more effective. If they do not gain this insight and improve performance, then
this form of "constructivistic" feedback is relatively worthless.

The bottom line is that improved performance develops important affective traits such as confidence and willingness to take risks with unfamiliar tasks, and effective feedback, by definition, improves performance (Kline, 1989). Ineffective feedback impairs performance and has a negative impact on the affective dimension of students' development.

**Sufficient Opportunities to Learn.** Students with LD often require extensive practice applying skills to a variety of predictable and unpredictable situations for them to become generalized. Likewise, because student elaboration seems to be such an important learning tool for many students with LD, teachers must take the time to allow these elaborations to take place and for feedback to be provided. For example, for instruction in specific learning strategies to be effective, it must be intensive and extensive, meaning students need to practice the strategies a great deal before they can reasonably be expected to be learned (Brown, 1994).

Insufficient practice in a strategy or skill that students are expected to learn often translates directly to lowered academic self-concept. Too often, students are provided with insufficient opportunities to learn a skill, thus do not learn it, but then are expected to demonstrate mastery of the skill on a test or use the skill to perform other tasks that are formally evaluated. The student subsequently scores poorly on the test or task, and then the teacher, in turn, attributes this poor performance to the student's learning disability, poor attitude, or low motivation. These perceptions are often then communicated to the student in both subtle and overt ways; in short, the victim is blamed for the problem.

**Interesting and Meaningful Experiences.** Given the motivational challenges of students with LD, teaching them in a manner that naturally motivates them to learn because the learning experiences are inviting and relevant to them is of paramount importance. Examples of ways to make the curriculum more authentic and personal to students include (a) providing opportunities for students to become involved in the creation of holistic unit plans; (b) having students design their own projects that connect the content of the course to issues that are more personally relevant to them and their perceptions of the issues of today's world; (c) involving students in opportunities to experiment, invent things, and/or design and conduct their own research; and (d) ensuring that there are authentic audiences for the products or projects that students are expected to produce.

**CONCLUSION**

Regardless of whether the classroom is labeled general education or special education, settings in which the five critical goals previously discussed are substantially present are likely to be healthy learning environments for students with LD. Likewise, regardless of their labels, classrooms in which these elements are not present may significantly undermine the affective development of all individuals, especially those with learning difficulties.

The degree of success that individuals with LD experience is always a function of the manner in which the characteristics of the individual interact with those of the environment. Many educators have advocated focusing on the strengths of individuals with disabilities rather than investing so much effort in remediating their deficits (Hallahan & Kauffman, 1997; Poplin, 1988a, 1988b). Equally important is enhancing academic and affective environments by watering up the curriculum and instruction rather than watering or dumbing it down.

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**AUTHOR'S NOTE**

The positions reflected in this article are based on a combination of research reviews, my own research, and my observations of and interactions with some truly outstanding teachers. In a great many ways, this article describes the following teachers' classrooms: Betsy Stockdale, Mt. Brook High School, Birmingham, AL; Mickie Kennedy, Bronxville High School, Bronxville, NY; Emma Wixted and Len Telivic, Scarsdale Middle School, Scarsdale, NY; Kathy Thoresen, Simmons Middle School, Hoover, AL; and Sandra Poe, Willow Hall Academy, Franklin, TN.

**REFERENCES**


Ellis, E. S. (in press-b). *Using project-based learning to water up the curriculum.* Tuscaloosa, AL: Masterminds.


Schrag, J. (1993). Organizational, structural, and curricular strategies to support the implementation of unified, coordinated, and inclusive schools. Reston, VA.


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