
The Intelligence-Friendly Classroom

It Just Makes Sense

By Robin Fogarty

Ms. Fogarty provides guidelines that serve as a bridge between theory and practice in the intelligence-friendly classroom

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IF WE KNOW that intelligence is emotional, then it just makes sense to use visceral hooks. If we know that intelligence is nurturable, then it just makes sense to create rich environments. If we know that intelligence is constructed, then it just makes sense to provide tools for the mind. If we know that intelligence is experiential, then it just makes sense to challenge through doing. If we know that intelligence is multiple, then it just makes sense to target many dimensions. If we know that intelligence is modifiable, then it just makes sense to mediate learning. If we know that intelligence is elusive, then it just makes sense to vary the ways we measure it.

If we know all these things and believe what we know to be true, then the “intelligence-friendly classroom” should be a given. It is as simple and logical as an “if...then” syllogism.

Defining Intelligence-Friendly Classrooms

Let's look more closely at the term “intelligence-friendly classroom” and see just what it means. An intelligence-friendly classroom is a classroom in which the teaching/learning process is governed by what is known about developing the intellectual potential of human beings. Literally, intelligence-friendly means “friendly to intelligence,” which can be translated into friendly to the growth patterns of human intellect and friendly to the learner in fostering intelligent behavior for problem solving, decision making, and creative thinking. Figuratively, the intelligence-friendly classroom serves as a caring companion and mindful guide to the intellect of each and every child in it. Just as a friend in the real world furnishes certain kinds of support that are reliable, time-tested, and tried and true, so intelligence-friendly classrooms provide similar systems of support that foster the ongoing development of human intelligence potential.

In brief, intelligence-friendly classrooms are classrooms that celebrate the joy of the learner's emotional and intellectual world, not through rhetoric and repetition, but through richness and relationships. In this article, I'll take a closer look at these intelligence-friendly classrooms and investigate their theoretical underpinnings briefly and their practical implications in more depth.

Theoretical Underpinnings

Guidelines for the intelligence-friendly classroom are grounded in the works of the leading voices in the field. First, I offer a cursory examination of the various theories of intelligence and then suggest what each of them implies for the intelligence-friendly classroom.

- *Traditional theory of general intelligence.* Intelligence is inherited and unchanging.

- *Piaget's theory of developmental psychology.* Intelligence is developmentally constructed in the mind by the learner and moves from concrete to abstract stages of understanding.
- *Vygotsky's theory of social mediation.* Intelligence is a function of activity mediated through material tools, psychological tools, and other human beings.
- *Feuerstein's theory of structural cognitive modifiability.* Intelligence is a function of experience and can be changed through guided mediation.
- *Gardner's theory of multiple intelligences.* Intelligence is made up of eight realms of knowing (verbal, visual, mathematical, musical, bodily, interpersonal, intrapersonal, naturalistic) for solving problems and creating products valued in a culture.
- *Sternberg's successful intelligence.* Intelligence is triarchic, with analytic, creative, and practical components that need to be balanced.
- *Perkins' theory of learnable intelligence.* Intelligence is made up of neural, experiential, and reflective components that help us know our way around the good use of our minds.

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- *Costa's theory of intelligence behaviors.* Intelligence is composed of acquired habits or states of mind that are evident in such behaviors as persistence, flexibility, decreased impulsiveness, enjoyment of thinking, and reflectiveness.
- *Goleman's theory of emotional intelligence.* Intelligence is both cognitive and emotional, with the emotional (self-awareness, self-regulation, motivation, empathy, and social skill) ruling over the cognitive.
- *Coles' theory of moral intelligence.* Intelligence is composed of cognitive, psychological or emotional, and moral realms.

Implications for Application

The intelligence-friendly classroom is an intricate and complex microcosm of nuance and activity that propels the teaching/learning process. The following eight guidelines, derived from the various theories of intelligence, have compelling implications for today's classroom. I explain each guideline briefly and offer a sampling of useful strategies. While some readers may find the suggestions familiar and already part of their current teaching repertoire, others may discover new ideas or, perhaps, novel ways to revisit an old idea with a fresh approach. Whatever the case, the guidelines serve as a bridge between theory and practice in the intelligence-friendly classroom.

1. *Set a safe emotional climate.* The intelligence-friendly classroom is a safe and caring place for all learners, regardless of race, color, creed, age, aptitude, or ability to go about the business of learning. In setting a climate for thinking, risk-taking becomes the norm, and learners understand that to learn is to make mistakes as well as to experience successes.

Specific strategies to use include the following: establishing classroom rules, being aware of verbal and non-verbal teaching behaviors (e.g., wait time), organizing diverse small-group

work that feels "safe," tapping into the emotional and moral intelligences, setting up the room to facilitate student-to-student interactions as well as student-to-teacher interactions, and incorporating learner-centered structures (e.g., multi-age groupings) that foster the creation of intelligence-friendly learning communities.

2. *Create a rich learning environment.* An enriched environment requires attention to the physical aspects of the intelligence-friendly classroom. The ideal classroom resembles a children's museum, in which students are repeatedly and implicitly invited to interact with the learning environment. In such a stimulus-rich setting, explorations, investigations, and inquiries are irresistible.

This enriched environment presents science equipment, art supplies, tools and workbenches, toys and building blocks, optical illusion posters, and an electronic circus of computers, telephones and fax machines. The intelligence-friendly classroom has different mini-environments for quiet reflection, noisy projects, learning centers, and one-on-one tutorials. The sensory input – ranging from print-rich materials, music, and recordings to visually appealing bulletin boards and to signs, games, puzzles, and lab setups – provides an intriguing and engaging place for teaching for intelligence.

3. *Teach the mind-tools and skills of life.* Teaching the skills of life involves both mind and body "tools" that range from communication and social skills to the microskills of thinking and reflecting, to the technological skills needed for the Information Age, to the skills needed for solving algebraic equations or programming computers, and even the skills needed to learn a craft or participate in athletics.

More specifically, these skills might include critical thinking skills (e.g., prioritizing, comparing, and judging), creative thinking skills (e.g., inferring, predicting, and generalizing), social skills (e.g., communicating, team building, leading, and resolving conflicts), technological skills

(e.g., keyboarding, surfing the Net, and taking virtual field trips), visual skills (e.g., painting, sculpting, and drawing), skills in the performing arts (e.g., dancing, acting, and playing a musical instrument), and skills of the elite athlete (e.g., diving, skiing, and swimming).

4. *Develop the skillfulness of the learner.* The developmental path of skill training moves through fairly predictable stages; novice, advanced beginner, competent user, proficient user, expert. Inherent in this developmental arc is the understanding that skillfulness is achieved through mediation, practice, coaching, and rehearsal.

Skill development often occurs through formal teaching/learning structures, such as direct instruction models, that demonstrate the skill for the student. Skills are also developed through independent readings and research and through the dialogue, discussion, and articulations of peer coaching, mentoring, or internships. Skill development can even happen with experiences in which the skill is embedded in application and in poised moments for achieving peak performances.

5. *Challenge through the experience of doing.* Learning is a function of experience and is shaped by internal processes that actually construct ideas in the mind, as well as by the external processes of social interaction. In the intelligence-friendly classroom, a constructivist philosophy of education reigns. Active, experiential learning is the norm, as the learner is invited to become an integral part of the teaching/learning process.

Specific strategies that abound in the constructivist classroom include hands-on learning with lots of manipulative and lab-like situations; small-group, cooperative tasks; the frequent use and unique application of graphic organizers (e.g., concept maps, attribute webs, flow charts, and Venn diagrams); and authentic experiential curriculum models (e.g., problem-based learning, case studies, project and service learning, performance

tasks, and the use of relevant overarching themes).

6. *Target multiple dimensions of intelligence.* The multiple intelligences (MI) approach taps into the unique profile of intelligences of each learner. The education community embraces MI theory because it provides a natural framework for inspired practice. MI approaches to curriculum, instruction, and assessment target a full spectrum of teaching/learning strategies that encompass the many ways of knowing and of expressing what we know. The MI classroom is abuzz with activity as all eight of the intelligences are given fair time in the curriculum for authentic, relevant opportunities for development.

This does not mean that every lesson shows evidence of all eight intelligences, but rather the learning is structured in naturally integrated ways that call upon various intelligences. For example, while creating a school newspaper, students interview (interpersonal), write (verbal), design and lay out (visual), and critique (logical) as natural parts of the process.

7. *Transfer learning through reflection.* The reflective use of learning is the cornerstone of the intelligence-friendly classroom. It drives personal application and transfer of learning. It makes learning personal, purposeful, meaningful, and relevant and gives the brain reason to pay attention, understand, and remember. Reflection is sometimes the missing piece in today's classroom puzzle, as the pacing of the school day often precludes time for reflection. Yet reflection, introspection, and mindfulness must accompany collaborations and discussions because the time for reflection is the time for internalizing the learning.

Specific strategies that enhance reflection include the use of reading-response journals in which the reader writes a personal, immediate response to what has been read; learning logs that record the learner's thoughts, comments, and questions prior to or following a learning experience; lab

reports; personal diaries; sketch books; writer's notebooks; portfolios; partner dialogues and conversations with a mentor; mediation interventions; and metacognitive strategies of planning, monitoring, and evaluating through self-regulation.

8. *Balance assessment measures.* Human nature demands feedback. Whether that feedback is internally motivated or externally given, all of us who are intent on learning anxiously await the critique, the judgment. In the intelligence-friendly classroom, this critical phase of the learning process is integral to all other interactions. The feedback, analysis, and evaluation are ongoing as well as summative.

Assessment occurs by the traditional means of grades and rankings for required classwork, homework assignments, quizzes, criterion-referenced tests, and standardized tests. In addition, to provide the proper balance to the assessment process, both portfolio assessments (e.g., project portfolios, best-work portfolios, electronic portfolios, and videotape analysis) and performance assessment (speeches, presentations, plays, concerts, athletic performances, and lab experiments) occur.

A Final Note

In closing, let's circle back for a moment and revisit the title of this article: "The Intelligence-Friendly Classroom: It Just Makes Sense." Think about how I've described the intelligence-friendly classroom and about how it matches or fails to match any preconceived notions you might have had as you began to read. Intelligence-friendly? What does that mean? What does that look like? Sound like? Did you learn in an intelligence-friendly classroom? Do you teach in one? Would you know one if you saw one?

Of course you would. The intelligence-friendly classroom is no enigma. It makes perfect sense. It draws on the many powers of intelligence of both the teacher and the learner. It is the teaching/learning

process in all its glorious colors. It is the science of good, sound pedagogy coupled with the art of uniquely creative minds.

The intelligence-friendly classroom is part of the noble vision of schooling that led many of us into the field. It is the reason that we do what we do. It's about children, and it's about helping those children be as smart as they can be in every way they can be. The intelligence-friendly classroom just makes sense. **K**

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