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The Three Es for Successful Academic Achievement

Joseph S. Renzulli, Director
The Neag Center For Gifted Education and Talent Development
University of Connecticut Board of Trustees Distinguished Professor
Winner of the 2009 Harold W. McGraw, Jr. Prize For Innovation In Education

Imagine what it would be like if students came to school each day with the same positive attitude we routinely see when they are working on the school yearbook, preparing for a choir presentation, getting ready for a robotics competition, or preparing to play their arch rivals in basketball. What is the magnetism surrounding these experiences that produces a mindset that is so different from regular schooling; and how can we create at least some of this positive energy as we go about educating young people in the regular curriculum as opposed to these extra-curricular activities? Ask a dozen teachers this question and you will usually get similar answers. "Kids *choose* to be in the choir or write for the school newspaper." "Those things are based on the students' *interests*." "They *produce something* that is relevant to their interest and that has an impact on a real audience." "They are with other students who like this topic."

Teachers have also observed the joy of pinnacle learning experiences by being in classrooms with interested and excited students. They celebrate the joy of discovery as students play a strategy game based on midnight movements on the Underground Railroad, they observe the strategies developed as their students virtually dissect and preserve their own mummy, and they experience the ah-ha that occurs when gathered around a science table discover the mysteries of how chemical reactions take place. And they saw in their mind's eye a child's joy when hearing praise for a creative story or science project, eager to work in suggestions for making the project even better.

For many teachers, there is a disconnect between their vision of challenging and rewarding teaching and the day-to-day grind of test-prep so rampant in today's highly prescribed curriculum and all manner of reform initiatives dictated by agencies far removed from schools and classrooms. Perhaps most ironic about the separation between the ideal and the reality of today's classrooms is that most teachers have or can easily learn the skills and motivation to do the kinds of teaching about which they once dreamed. Unfortunately, the lists, regulations, and other peoples' requirements that are imposed upon them "from above" have resulted in both a prescriptive approach to teaching and a barrier to creating challenging and exciting classrooms. Over-prescribing the work of teachers has, in some cases, lobotomized good teachers and denied them the creative teaching opportunities that attracted them to the profession in the first place. In her research on classroom practices, Linda Darling-Hammond reported that most teachers felt their views of good teaching were at odds with those of their school districts. Seventy-nine percent of the teachers participating in this study indicated that concerns for children and for learning are central to good teaching, but only 11% said that their school district shared this view.

A large majority of teachers (75%) believed that their school officials favored behaviorist theories of learning rather than theories that are more child-centered and inquiry oriented. I do not think that all prescribed, standards-based teaching is bad, nor should we criticize current national movements to improve the achievement test scores for all of our young people. I also believe, however, that a good education must *balance* a prescribed curriculum with regular, systematic high-engagement opportunities that allow students to develop their interests, abilities, learning styles, and preferred modes of expression.

How did we get into this mess? Why hasn't the estimated three *trillion* dollars spent on school reform by federal and state agencies and well-intentioned foundations made more of an impact? We've tried just about everything—smaller schools, year-round schools, longer school days, single sex classes, after school mentoring, school uniforms, vouchers, charter schools, school-business partnerships, merit pay for teachers, paying students (and even parents) for higher scores, private management companies and for-profit schools, take overs by mayors and state departments of education, distributive leadership, site-based management, data-based decision making, and just about every scheme imaginable into which someone can insert the words, standards based, "accountability," or average yearly progress. And every buzz word in a profession that already thrives on too much jargon eventually creeps into the repertoire of policy makers, shifting the focus off of student needs and appropriate pedagogy for meeting these needs and on to inflexible bureaucratic solutions that ignore individual learning needs. All of these suggested solutions, usually launched with much fanfare, endless and usually mind numbing workshops for teachers, and little if any research or track record for success have been offered as silver bullets that can "save" our schools and raise the test scores of our lowest achieving students. The sad fact is these schemes simply have not worked! If there has been one thing that all the studies of reform initiatives have consistently found it is that changing structures rarely alter classroom practice, and there is no evidence that the new structures lead to more student achievement or engagement in learning.

What do all of these reform initiatives have in common? Most are built on structural changes, designed by well-intentioned policy makers or agencies (usually far removed from the classroom), and calculated to have an impact on entire school districts, states, or even the entire nation. More important, however, is that these structural changes have drawn mainly upon (and even forced) a low level pedagogy that is highly prescriptive and didactic—approaches to learning that emphasize the accumulation, storage, and retrieval of information that will show up on the next round of standardized tests. We have become so obsessed with content standards and test scores that assess mainly memory, that we have lost sight of the most important outcomes of schooling—thinking, reasoning, creativity, and problem solving skills that allow young people to *use* the information driven by content standards in interesting and engaging ways.

If failed approaches have continued to produce dismal results, perhaps it is time to examine a counter-intuitive approach based on a pedagogy that is the polar opposite of the pedagogy that Pavlov used to train his dogs! Accountability for the truly educated mind in today's knowledge-driven economy should first and foremost attend to students' ability to:

- plan a task and consider alternatives
- monitor one's understanding and the need for additional information

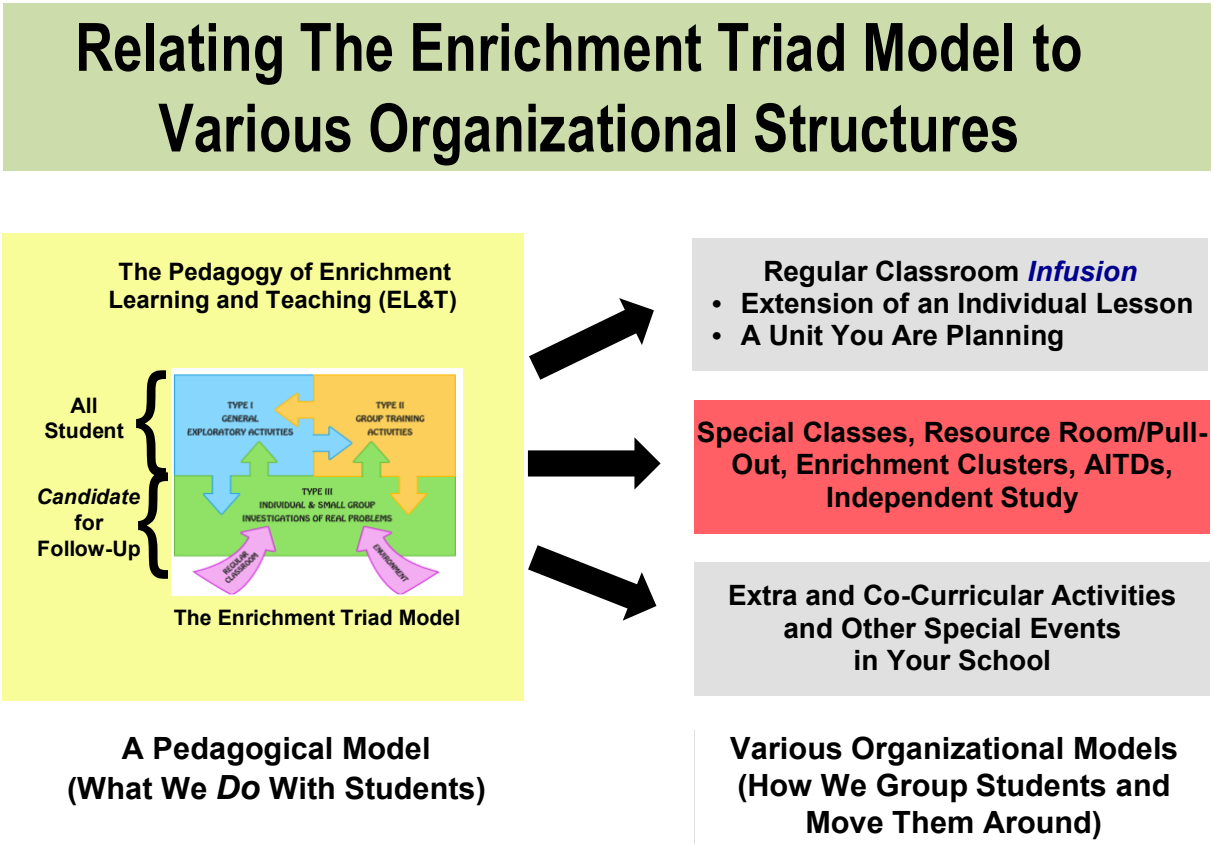
- identify patterns, relationships, and discrepancies in information
- generate *reasonable* arguments, explanations, hypotheses, and ideas using appropriate information sources, vocabulary, and concepts
- draw comparisons and analogies to other problems
- formulate meaningful questions
- apply and transform factual information into usable knowledge
- rapidly and efficiently access just-in-time information and selectively extract meaning from that information
- extend one's thinking beyond the information given
- detect bias, make comparisons, draw conclusions, and predict outcomes
- apportion time, schedules, and resources
- apply knowledge and problem solving strategies to real world problems
- work effectively with others
- communicate effectively in different genres, languages, and formats
- derive enjoyment from active engagement in the act of learning
- creatively solve problems and produce new ideas.

These are the student engagement-oriented skills that grow young minds, promote genuine enthusiasm for learning, and, as our research has shown, increase achievement (Renzulli & Reis, 1985). Although student engagement has been defined in many ways, I view it as the infectious enthusiasm that students display when working on something that is of personal interest and that is pursued in an inductive and investigative approach to learning. It takes into account student learning styles and preferred modes of expression as well as interests and levels of knowledge in an area of study. It is through these highly engaging approaches that students are motivated to improve basic skills and bring their work to higher and higher levels of perfection. True engagement results from learning activities that challenge young people to "stretch" above their current comfort level, activities that are based on resources and methods of inquiry that are qualitatively different from excessive practice. And our research has shown that teaching students to think critically and analytically and creatively actually improves plain old-fashioned achievement (Renzulli & Reis, 1997; Renzulli, 2008). Our guiding principle in this kind of learning is simply: *No Child Left Bored!*

A Model for Enrichment Learning and Teaching

I have spent many years analyzing the powerful impact of the types of activities described above. The reactions of both students and teachers have led me to conclude that there are three characteristics that exemplify what most students and teachers experience when the best forms of learning take place. These characteristics are Enjoyment, Engagement, and Enthusiasm. Based on these three characteristics, a "brand" of learning has been developed that is intended to bring some balance between prescriptive requirements and higher level enrichment experiences. We call this brand "investigative learning" and the vehicles designed to deliver this more creative method of teaching are three different types of enrichment depicted in Figure 1 and briefly described below.

Figure 1. Relating the enrichment triad model to various organizational structures.



The Enrichment Triad Model (Renzulli, 1977) was originally designed as a gifted program model to encourage creative productivity on the parts of young people by exposing them to various topics, areas of interest, and fields of study; and to further train them to *apply* advanced content, process-training skills, and methodology training to self-selected areas of interest using three types of enrichment. The original Triad Model with three types of enrichment was originally implemented in programs designed for academically talented and gifted students.

In the Enrichment Triad Model (Renzulli, 1977), Type I enrichment is designed to expose students to a wide variety of disciplines, topics, occupations, hobbies, persons, places, and events that would not ordinarily be covered in the regular curriculum. In schools using this approach, an enrichment team of parents, teachers, and students often organizes and plans Type I experiences by contacting speakers, arranging mini-courses, conducting overviews of enrichment clusters, demonstrations, performances, using Internet resources, or by ordering and distributing films, slides, CDs and DVDs, videotapes, or other print or non-print media. Type I enrichment is mainly designed to stimulate new interests leading to Type II or III follow-up on the parts of students who become motivated by Type I experiences. Type I enrichment can be provided by Type I experiences. Type I enrichment can be provided for general groups, or for students who have already expressed an interest in the topic area.

Type II enrichment includes materials and methods designed to promote the development of thinking and feeling processes. Some Type II enrichment is general, and usually provided to groups of students in their classrooms or in enrichment programs. This general Type II training includes the development of (a) creative thinking and problem solving, critical thinking, and affective processes; (b) a wide variety of specific learning how-to-learn skills; (c) skills in the appropriate use of advanced-level reference materials; and (d) written, oral, and visual communication skills. Other Type II enrichment is specific, as it cannot be planned in advance and usually involves advanced instruction in an interest area selected by the student. For example, students who become interested in botany after a Type I on this topic would pursue advanced training in this area by reading advanced content in botany; compiling, planning and carrying out plant experiments; and more advanced methods training for those who want to go further and pursue a Type III in that area (Renzulli, 1982).

Type III enrichment involves students who become interested in pursuing a self-selected area and are willing to commit the time necessary for advanced content acquisition and process training in which they assume the role of a first-hand inquirer. The goals of Type III enrichment are:

- providing opportunities for applying interests, knowledge, creative ideas and task commitment to a self-selected problem or area of study;
- acquiring advanced level understanding of the knowledge (content) and methodology (process) that are used within particular disciplines, artistic areas of expression and interdisciplinary studies;
- developing authentic products that are primarily directed toward bringing about a desired impact upon a specified audience;
- developing self-directed learning skills in the areas of planning, organization, resource utilization, time management, decision making and self-evaluation, and,
- the development of task commitment, self-confidence, and feelings of creative accomplishment.

Type III products can be completed by individual or small groups of students and are always based on students' interests. A book written by a fifth grade student named Gretchen provides one example of a Type III study. Gretchen had two passionate interests as a fifth grader: the literature of Louisa May Alcott and cooking. Gretchen had read all of Louisa May Alcott's books and identified, in each book, any specific food mentioned. She researched the recipes of the time that would have been used to make the food (such as buckwheat cakes), field-tested each recipe (including making substitutions for ingredients no longer available), and created an original cookbook. Gretchen spent a year and a half working on a cookbook that combined vignettes of scenes from *Little Women* and *Little Men* with many authentic 19th century recipes for making the foods described in the novels. *The Louisa May Alcott Cookbook* was accepted and became the first book contracted by Little Brown with a child author. In Gretchen's Type III, both the process she used and the final product involved high levels of creative engagement and clear evidence of creative work.

During the time that we were experimenting with and watching the success of many programs based on the Enrichment Triad Model, we were also working on methods for

differentiating curriculum (Curriculum Compacting) and in matching the strengths of students with appropriate levels of challenge and interest-based materials. The development of personalized education plans became a priority in our research and procedures for using technology to analyze interests, learning styles, and preferred modes of expression became the basis for a strength-based approach to improving achievement.

The Triad Model and investigative learning are *not* intended to replace the regular curriculum. Rather, teachers should look into any and all regular curricular topics to find opportunities where they can infuse one or more general (Types I and II) enrichment experiences into prescribed curricular topics. And, when one or more students show a positive reaction, teachers can make the connections for individual and small group follow-up (Type III) by guiding the work themselves, locating mentors with expertise in the students' chosen area of study, or using Internet resources to provide material for advanced study. Another approach consists of setting aside weekly time blocks called Enrichment Clusters (Renzulli, Gentry, & Reis, 2002), during which time students who share a common interest come together to pursue total enrichment experiences based on the three types specified in the Triad Model.

Enjoyment, Engagement, and Enthusiasm are the result of the following four components of investigative learning:

1. Personalization of interest
2. Use of authentic investigative methodology
3. Producing a product, performance, or presentation that is designed to have an impact on a targeted audience other than (or at least in addition to) the teacher
4. Does not have a single, predetermined correct answer or single way of approaching the investigation.

Our most recent work on the Triad Model has been a computer-based technology system that makes the always-demanding work of differentiation easier. The Renzulli Learning System (RLS) uses a computer generated student profile to document students' academic strength areas, interests, learning styles, and preferred modes of expression. A one-of-a-kind search engine then scans thousands of multiply tagged enrichment resources that are matched to each student's profile. Teachers can use the RLS to identify and infuse into any and all topics high engagement resources and they can send these resources to create lesson or unit plans and send assignments to selected individuals or groups. Education content experts have developed hundreds of ready-to-use assignments and projects across all grade levels and curricular areas. One teacher said, "It's like having a dozen teaching assistants in my classroom every day, all day." True differentiation that takes interests, learning styles, and expression styles into account can only be accomplished when teachers have the tools and resources that can be provided by this very creative use of technology.

There may never have been a time when so much debate about what should be taught has existed in our schools. The current emphasis on testing and the standardization of curriculum, and the drive to increase achievement scores has produced major changes in education during the last two decades. Yet at the same time, our society continues to need to develop creativity and advanced levels of inquiry skills in our students. As overpopulation, disease, political

turmoil, war, pollution, and starvation increase throughout the world, the need for creative solutions to these and other problems is clear. The young people who will address these problems are in our classrooms today! The absence of opportunities to develop advanced investigative skills and creativity in all of our young people, and especially in our most talented students, is a loss of human potential that will have dire consequences of every nation's future. Investigative learning encourages students to become partners in their own education and to develop a passion for joyful, engaging and enthusiastic learning. As students pursue creative enrichment opportunities, they learn to acquire all of the 21st Century learning skills that will contribute to the reservoir of future scientists, writers, artists, leaders, entrepreneurs and knowledge-makers in all walks of life. These enrichment experiences provide opportunities for students to develop their gifts and talents and to begin the process of life-long learning, culminating, we hope, in the creative productive work of their own selection as adults.

References

Renzulli, J. S. (1977). *The enrichment triad model: A guide for developing defensible programs for the gifted and talented.* Mansfield Center, CT: Creative Learning Press.

Renzulli, J. S. (1982). The enrichment triad. In C. J. Maker (Ed.), *Teaching models in education of the gifted* (pp. 207–236). Austin, TX: Pro-ed.

Renzulli, J. S. (2008). Engagement is the answer. *Education Week, 27*(43), 30–31.

Renzulli, J. S., Gentry, M., & Reis, S. M. (2002). *Enrichment clusters: A practical plan for real-world, student-driven learning*. Mansfield Center, CT: Creative Learning Press.

Renzulli, J. S., & Reis, S. M. (1985). *The Schoolwide Enrichment Model: A comprehensive plan for educational excellence*. Creative Learning Press.

Renzulli, J. S., & Reis, S. M. (1997). *The Schoolwide Enrichment Model: A how-to guide for educational excellence* (2nd ed.). Creative Learning Press.