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# Enrichment Clusters for Gifted Learning

**By Joseph Renzulli**

*"The whole process of education should thus be conceived of as the process of learning to think through the solution of real problems."*
- John Dewey, 1936

How can educators squeeze in time for the highly engaging learning activities that make schools enjoyable places for students (and staff) in the face of pressures to raise standardized test scores? And how can school develop the gifts and talents of all students without falling prey to hard-core grouping practices?

Research at our center's collaborative school districts suggests this seemingly impossible task can be achieved. Using enrichment clusters, students are guaranteed that at least some time during every school week is devoted to the kind of learning that makes schools more engaging and enjoyable places for developing student talent.

In these schools, educators have created a place within the weekly schedule that focuses students' attention on authentic learning applied to real-life problems. These two characteristics—authentic learning and real-life problems—are fundamental qualities of enrichment clusters.

## Two Central Aspects

The key concept in defining authentic learning is application. Authentic learning consists of applying relevant knowledge, thinking skills, and interpersonal skills to the solution of real problems.

These real-life problems share four criteria. First, a real problem requires a personal frame of reference for the individual or group pursuing the problem. In other words, the problem must involve an emotional or internal commitment in addition to a cognitive or scholarly interest. For example, stating that global warming or urban crime are "real problems" does not make them real for an individual or group unless they decide to do something to address the problem.

A second characteristic of real problems is that they do not have existing or unique solutions for persons addressing the problem. If an agreed-upon solution or prescribed strategics for solving the problem exist, then it is more appropriately classified as a training exercise. Even simulations based on approximations of real-world events are considered training exercises if their main purpose is to teach predetermined content or thinking skills.

The third characteristic of a real problem is best described in terms of why people pursue these problems. The main reason is that they want to create new produces or information that will change actions, attitudes or beliefs on the parts of a targeted audience. For example, a group of young people who gathered, analyzed, and reported on data about television-watching habits in its community were contributing information that was new, at least in a relative way, and that would cause people to think critically about the television-viewing actions of young people.

The final characteristic of real problems is that they are directed toward a real audience. Real audiences consist of persons who voluntarily attend to information, events, services, or objects.

A good way to understand the difference between a real and a contrived audience is to reflect on what some students in the Ellenville, N.Y., Central School District did with the results of their local oral history project. Although they presented their findings to classmates, they did so mainly to rehearse presentation skills. Their authentic audience consisted of members of a local historical society and persons who chose to read about their research in the features section of a local newspaper.

## Contrasts in Learning

To understand the essence of authentic learning is to compare how learning takes place in a traditional classroom with how someone might learn new material or skills in real-world situations. Classrooms are characterized by relatively fixed-time schedules, segmented subjects or topics, predetermined information and activities, tests and grades to determine progress and an organizational pattern largely driven by the need to acquire and assimilate information and skills imposed from outside the classroom.

Contrast this type of learning with the more natural chain of events chat takes place in real-world situations including research laboratories, business offices, or film studios. In these situations, the goal is to produce a product or service. All resources, information, schedules, and events are directed toward this goal, and evaluation (rather than grading) is a function of the quality of the product or service as viewed through the eyes of a client or consumer.

Looking up new information, conducting experiments, analyzing results, or preparing a report is focused primarily on the present rather than scoring it for a distant future.

Although most schools have introduced teaching techniques that go beyond traditional drill and recitation, the predominant instructional model continues to be a prescribed-and-presented approach to learning. The teacher, textbook, or curriculum guide prescribes what is to be taught, and the material is presented to students in a predetermined manner.

Even though nothing is inherently wrong with this deductive model, it is based on a limited conception of the role of the learner. It fails to consider variations in students'

interests and learning styles, and it always places students in roles of lesson-learners and exercise-doers rather than authentic, firsthand inquirers.

Authentic learning, on the other hand, focuses on the present use of content and processes. It does so as a way of integrating material and thinking skills into the more enduring structure of the learner's repertoire. And it is these more enduring structures that have the greatest amount of transfer value for future use.

When content and processes are learned in authentic, contextual situations, they result in more meaningful uses of information and problem-solving strategies than the learning that takes place in overly structured, prescribed classroom situations. If persons involved in authentic learning experiences are given some choice in the domains and activities in which they are engaged, and if present experience is directed toward realistic, personalized goals, this type of learning creates its own relevancy and meaningfulness.

## An Assembly Plant

Authentic learning consists of investigative activities and the development of creative products in which students assume roles as firsthand investigators, writers, artists, or other types of practicing professionals. Although students pursue these kinds of involvement at a more junior level than adult professionals, the overriding purpose is to create situations in which young people are thinking, feeling, and doing what practicing professionals do in the delivery of products and services.

These experiences should be viewed as vehicles through which students can apply their interests, knowledge, thinking skills, creative ideas, and task commitment to self-selected problems or areas of study.

In addition to chis general goal, authentic learning has four objectives:

- To acquire advanced-level understanding of the knowledge and methodology used within particular disciplines, artistic areas of expression, and interdisciplinary studies;
- To develop authentic produces or services that are primarily directed toward bringing about a desired impact on one or more specified audiences;
- To develop self-directed learning skills in the areas of planning, problem finding and focusing, organizational skills, resource utilization, time management, cooperation, decision making, and self-evaluation; and
- To develop task commitment, self-confidence, feelings of creative accomplishment and the ability to interact effectively with other students and adults who share common goals and interests.

Authentic learning should be viewed as the vehicle through which everything, from basic skills to advanced content and processes, comes together in the form of student-developed products and services. In much the same way that all of the separate

but interrelated parts of an automobile come together at an assembly plane, so too do we consider this form of enrichment as the assembly plant of the mind.

This kind of learning represents a synthesis and an application of content, process, and personal involvement. The student's role is transformed from one of lesson-learner to firsthand inquirer, and the role of the teacher changes from an instructor and disseminator of knowledge to a combination of coach, resource procurer, mentor and, sometimes, a partner or colleague. Although products play an important role in creating authentic learning situations, a major concern is the development and application of a wide range of cognitive, affective, and motivational processes.

## Cluster Activity

As indicated earlier, our experience with schools has shown that we can guarantee authentic learning experiences for students if the overall weekly schedule devotes some time exclusively to this kind of learning. During enrichment clusters, nongraded groups of students come together for approximately one half-day per week because they share common interests that bind them together and a willingness to work cooperatively within a relatively unstructured learning environment.

Information collected in student portfolios assists students and teachers in making decisions about the clusters in which they might like to work. Block-scheduling arrangements, or selectively borrowing one class meeting per month from the regular schedule has allowed numerous schools to set aside the time necessary for enrichment clusters.

The guidelines for enrichment clusters are easy to follow. First and foremost, all cluster activity is directed toward the production of a product or service. But enrichment clusters are not mini-courses. There are no unit or lesson plans. Rather, a series of startup activities help students find and focus on a problem the majority of those in the group wants to pursue.

The facilitation of an enrichment cluster can be illustrated by following a group of students who started "The Video Production Co." at Torrington High School in Torrington, Conn. Students selected this cluster because of their collective interests in the medium of video and its impact on audiences. The teacher who coordinated this cluster was familiar with the operation of simple video equipment and she also knew community persons who would volunteer assistance in this area. This cluster quickly became interdisciplinary in nature.

Produce development required that students deal with scripting, storyboarding, drama, set design and costumes, cinematography, and video editing. A unique feature of clusters is that everyone does not do the same thing. This division of labor models real-world productivity, and everyone contributes in his or her own area of specialization. The group is connected by a common purpose, but each person is special because of the unique contribution that he or she makes to the overall enterprise.

## Initial Questions

The early meetings of the Video Production Co. focused on answering the following questions:

1. What do people with an interest in video production do?
2. What products do they create and/or what services do they provide?
3. How, and with whom, do they communicate the results of their work?
4. What resources and materials are needed to produce high-quality video products and services?
5. What steps need to be taken to have an impact on intended audiences?

Rather than providing students with answers to these questions, the teacher organized and guided but did not dominate the investigative process. General exploratory experiences took the form of guest speakers, displays of typical products from the field of video production, and videos of cinematographers at work. A library trip organized around a scavenger hunt helped students broaden their perspective about the produces and process involved in different genres of video production.

Students discovered how-to books that provided valuable sources of methodological information. Brain-storming and webbing techniques helped students identify what they knew and what they were eager to discover.

Mutual interests are a good starting point for accelerating motivation and promoting harmony, respect and cooperation among group members. Individual interests led to students interviewing local professionals and obtaining career-related literature from professional societies and associations. Resource people ranged from teachers and students involved in a local community-college communication program to professionals at the local television station.

Once students understood what professionals in video production do, they decided on a project with common interest to the group. Problem finding and focusing is a crucial step, because the nature of the project or service will drive the rest of the investigation. Students may use their own interests to develop a documentary or fictional work, or they may opt to market their services to the student council, athletic association or parent-teacher association and make a school-orientation video or video year-book for the school. The enrichment cluster may divide into subgroups based on produce selection.

In the case of the Video Production Co., the students decided to do an all-purpose program about activities taking place in the district's schools. Features such as Kindergarten Corner, the Inventors' Forum, and the Science Connection were interspersed with general school news and interviews with students and teachers. The program aired weekly on the local cable-access television station.

## The Teacher's Role

As the facilitator of the cluster, the teacher helped students select challenging projects, develop storyboards and shooting schedules, and make arrangements for transportation and for cooperation with other teachers. She also helped identify the jobs to be done, obtain the required resources, and develop an action plan. The teacher worked with the group on developing interpersonal skills, running effective meetings, and developing time-management skills. These activities should be student-driven, with the teacher playing an advisory role.

Wherever possible the teacher should encourage students to imitate the roles and responsibilities they saw modeled by actual professionals working in the field of video production. This division of labor allows all students to have ownership of a component of the production and to find a niche that complements their individual abilities, needs, and interests. Each person's specialty. is valuable because of the essential contribution it makes to the whole.

At all times the role of teacher is to coach, support, and escalate the level of the performance to a higher level. Like any coaching position, teachers quickly will develop the experience to predict the problems and needs of the group before they arise. This requires a great deal of patience and restraint.

Facilitators must allow students to experience frustration and struggle to turn setbacks into successes. Students must own the problem if they are ultimately to own the satisfaction of their success. As the work of the Video Production Co. evolved, the teacher helped students run company meetings and assess their progress.

Assessment and evaluation are an integral part of produce development and should not be imposed from outside. Students should select criteria they believe are important and judge their work against them. Assessment should be reflective and the enrichment cluster should provide an atmosphere where students feel comfortable taking creative risks.

Product development always should be viewed as a work in progress, and feed-back should be used to improve the quality of the product. The ultimate evaluation is always a function of viewer feedback. When a product is complete, time should be taken to celebrate its success before moving on to another project.

## Authentic Uses

Authentic learning is important for several reasons. First, schools should be enjoyable and creative places rather than places where students assimilate knowledge but never have an opportunity to apply it.

Second, schools should be places where students participate in and prepare for intelligent, creative, and effective living. This type of living includes learning how to analyze, criticize, and select from among alternative sources of information and courses

of action; how to think effectively about unpredictable personal and interpersonal problems; how to live harmoniously with one another while remaining true to one's own emerging system of attitudes, beliefs, and values; and how to confront, clarify, and act upon problems and situations in constructive and creative ways.

Finally, authentic learning is important because our society and democratic way of life are dependent upon an unlimited reservoir of creative and effective people who know how to put knowledge to work in real-world situations.

## Resources on Cluster Grouping

***Publications***

*Developing the Gifts and Talents of All Students in the Regular Classroom* by Margaret Beecher, available from Creative Learning Press, P.O. Box 320, Mansfield Center, Conn., 06250, 860-429-8118.

*Schools for Talent Development: A Practical Plan for Total School Improvement* by Joseph Renzulli, available from Creative Learning Press.

*The Schoolwide Enrichment Model: A How-To Guide for Educational Excellence* by Joseph Renzulli and Sally Reis, available from Creative Learning Press.

***Resource Centers***

*ERIC Clearinghouse on Disabilities and Gifted Education*, c/o The Council for Gifted Education, 1920 Association Drive, Reston, Va., 20191, 888-232-7733, http://www.ericec.org. A federally funded clearinghouse that gathers and disseminates professional literature, information, and resources on the education of individuals of all ages who have disabilities and/or who are gifted.

*National Association for Gifted Children*, 1707 L St., N.W., Suite 550, Washington, DC, 20036. 202-785-4268, https://www.nagc.org/. An organization for parents and professional educators that addresses the unique needs of students with gifts and special talent.

*National Research Center on the Gifted and Talented*, University of Connecticut, 362 Fairfield Road, U-7, Storrs, Conn., 06269, 860-486-4676, https://www.gifted.uconn.edu. Directed by Joseph Renzulli, this center provides research monographs and videotapes, including a reproducible training packet on schoolwide enrichment. The center also coordinates the activities of several other federally supported centers on the gifted and talented that conduct research on differentiated classroom practices among other topics.

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