Expanding enrichment program opportunities to all students

Windham Center School is located in Willimantic, CT, an old mill city with a population that is now almost half Hispanic. A bilingual program is available in kindergarten and first grades for both English-speaking and Spanish-speaking students. The city has the sixth highest poverty level in Connecticut; consequently, many of the 350 students in this school arrive hungry and participate in a breakfast program.

The city is burdened with budget problems, and there is disagreement among taxpayers regarding allocation of resources to education. Accordingly, the education budget is limited and precarious, and the school’s resources, equipment, and materials are restricted. Space is also limited; for example, a locker room and shower were converted to a small enrichment room/math room, and groups of students often work on the floor in the halls. Despite these difficulties, the staff is positive, energetic, and eager to provide needed services to students and parents. Parents are supportive of the school and staff and, as indicated by their state survey responses,
seemed pleased with the education their children received.

**Background of the Enrichment Program**

The enrichment cluster program at Windham Center School was implemented in 1995 and was based on The Enrichment Triad Model developed by Joseph Renzulli in 1977. This model was designed to encourage creative productivity on the part of young people by exposing them to various topics, areas of interest, and fields of study and to teach them to apply advanced content, process-training skills, and methodology training to self-selected areas of interest. Accordingly, three types of enrichment are included in the Enrichment Triad Model. 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. Type II enrichment consists of materials and methods designed to promote the development of thinking and feeling processes. Type II enrichment, carried out both in classrooms and in enrichment programs, consists of general training (i.e., creative thinking, problem solving, learning how to learn, and advanced reference and communication skills) and advanced training developed to meet the specific needs of a child as he or she pursues advanced study. Type III enrichment occurs when students become interested in pursuing a self-selected area and are willing to commit the time necessary for advanced content acquisition and process training. They assume the role of a first-hand inquirer, developing authentic products that are primarily directed toward bringing about a desired impact upon a specified audience.

Renzulli has consistently stressed that Types I and II enrichment are good for all children. As research on this model continued (Renzulli & Reis, 1985; Renzulli, 1994), it was clear that many schools were doing an excellent job of implementing this model within their gifted programs, but few were providing enrichment opportunities for students who were not already identified as gifted and talented. Therefore, the model was expanded to provide clearer guidelines for the organization of enrichment opportunities for all students, and retitled The Schoolwide Enrichment Model (SEM) (Renzulli & Reis, 1985; Renzulli, 1994).

The SEM has three components: (a) The Total Talent Portfolio (individual portfolios for talent development in each child focusing on abilities, interests, and learning styles); (b) Curriculum Modifications (including curriculum compacting, textbook analysis, and curriculum mapping; and expanding the depth and pace of learning); and (c) Enrichment Teaching and Learning (considering the uniqueness of each learner and the enjoyment of learning experiences including enrichment opportunities like those described in the Enrichment Triad Model). One particular aspect of this component is enrichment clusters (Renzulli, 1994).

Enrichment clusters are non-graded groups of students who share common interests and who come together to pursue these interests during specially designated time blocks, usually from one and one-half hours to one-half day per week. The major purpose of a cluster is to produce a product or a service. Everything students do in the cluster is directed toward completing a product or delivering a service for a real-world audience. Thus, students learn only relevant
Instead of lesson plans, three key questions guide learning:

What do people with an interest in this area do?
What knowledge, materials, and other resources are needed to produce student generated products or services in this area?
In what ways can the products or services affect an intended audience?

Like extracurricular activities and programs such as sports, yearbook, and other clubs, the clusters meet at designated times and operate on the assumption that students and teachers (or community resource people) want to be there. Common goals make real cooperation a necessity, and "divisions of labor" within the clusters allow for differentiated levels of expertise and involvement, varying levels of challenge, and opportunities for different types of leadership to emerge on the part of students. For example, a student in a newspaper cluster can explore positions such as editor, artist, reporter, feature writer, sports writer, advertising manager, cartoonist, and so forth. This type of learning environment is highly supportive of individual differences; therefore, it promotes the development of self-concept, self-efficacy, cooperation and positive feelings that result from being a member of a goal-oriented team. Enrichment clusters are based on the belief that every student is special if we create conditions in which that child can be a specialist within a specialized group (Renzulli, 1994). In the spirit of the "schoolwide" part of the SEM, all students are involved in the cluster program.

All teachers (including music, art, physical education, teacher aides, etc.) are involved in organizing the clusters, and numerous schools have also involved parents and other community resource persons. Many schools, like Windham Center School, which use the traditional Enrichment Triad Model (Renzulli, 1977) as the basis of their gifted and talented program are now expanding efforts at providing more enrichment opportunities to all students through the implementation of the Schoolwide Enrichment Model and enrichment clusters.

Adding Enrichment Clusters
At Windham Center School, the idea to implement enrichment clusters was introduced at a faculty meeting in the fall. Reactions of teachers ranged from enthusiastic and affirmative to skeptical and concerned. Several teachers raised some immediate and valid concerns, and these had to be resolved. One concern had to do with scheduling, which was the biggest obstacle in managing the program, yet the simplest to resolve for future years.

Since the clusters were being implemented after the year had begun and pull-out programs such as art, physical education, and music were already scheduled, no common time slot was available in the school schedule. Many teachers were concerned that the same group of students would miss a given special for several weeks in a row, or that some teachers might have to forego their planning time. By choosing a day with the least number of conflicts and juggling an art schedule, a temporary solution for that year was reached. Scheduling problems can easily be avoided by setting aside a time block for clusters before the school year begins, which was done
by Windham Center School for the next school year.

Another concern was the issue of teacher planning time in general; enrichment clusters could be viewed as "one more thing" added to an already overloaded curriculum. When teachers asked, "When are we supposed to plan for all this?," several points were considered. First, the cluster activities were not supposed to model traditional lessons with pre-planned activities; rather, they are supposed to involve more student-directed, hands-on explorations. Second, pairs of teachers or instructional assistants could work together and share planning responsibilities. When collaborations with local experts, parents, and business people were mentioned, the clusters were quickly viewed as fun and exciting experiences (for staff as well as students), rather than an added burden or "extra class."

A final concern was raised regarding behavior problems; however, few behavior problems materialized during the implementation of the clusters. Clusters were organized around interests-student interests and staff interests that minimized the typical behavioral problems often observed in classroom settings. In addition, the hands-on, exploratory nature of the clusters invited students to become active participants in directing the activities pursued in the cluster, and students quickly adjusted to the responsibility for their own learning. On the rare instances when behavior problems arose, students were removed from the clusters and lost the privilege of attending the cluster for that day.

**Let the Clusters Begin**

After discussion and problem solving during the staff meeting, the faculty agreed to participate in two series of enrichment clusters, one in the fall (five weeks) and another in the spring (10 weeks) for a total of 15 weeks. Clusters would meet for an hour and 15 minutes one day per week. Several teachers volunteered to facilitate clusters immediately following this staff meeting. One teacher who lived on a dairy farm was eager to organize a cluster on farming (students in that cluster subsequently investigated modern farming technology and explored the development of various uses for milk). Most teachers based their cluster on an interest, and their ideas varied: quilting, ornithology, video production, and painting. From additional staff suggestions, parents and community people who became interested in facilitating clusters were contacted. Within two weeks, 31 clusters on a variety of topics were formed. A brochure and registration form describing the clusters was sent home with students to discuss with their parents or guardians. Sixty percent of the registration forms were returned the day after they were sent home; others soon followed, and those students who didn't return their forms were registered at school. A sample brochure description of one cluster follows:

**Young Sculptors, Inc.**

Facilitated by Richard Jaworowski, Local Artist, Willimantic, CT, who has exhibited with the National Sculpture Society in New York and has pieces in private collections throughout the U.S. He has often shared his studio with students.
How does a sculptor work? How is a piece of "rock" transformed into a work of art? What happens to the finished piece? Explore the process of creating your own three-dimensional work of art using authentic tools and plaster. You may discover that creating your piece is as much fun as enjoying the finished product! View some works in marble and learn about one artist’s perspective. Richard Jaworowski is a local sculptor who has been carving for over 20 years.

P.S. Wear old clothes or bring a smock.

The first day of clusters was a little confusing for some students. Most younger students were unaccustomed to going to different classrooms, working with new groups of students in mixed grades, and being with a new adult. After the second week, however, students at every grade level seemed to enjoy their clusters, and the transition period in the halls was typically filled with eager anticipation and commotion. The Superintendent of Schools in Windham commented during one cluster session, "You can feel the excitement!" By creating a simple bulletin board of pictures of students in their clusters, interest was stimulated throughout the week. Many animated conversations could be overheard in front of this display. "What did you get for a cluster?" "Mine is great, we get to make a sculpture!"

**Spring Series**

Planning was easier for the spring clusters because students and staff knew the routine and were familiar with the cluster philosophy. This time, a formal assessment of student interests was conducted, and the tabulated surveys resulted in a list of top 20 interest areas. Results confirmed the top interests that might be expected from elementary students--dinosaurs, animals, magic, cartooning. Other interests were surprising, among them, Spanish, French, math, and oceanography. In general, the sciences and arts were most popular.

Every effort was made to pair staff interests with student interests or to bring in people with targeted interests from the community. The major goal was to provide as many authentic experiences as possible that matched the findings from the interest surveys. New clusters included:

- Life Undersea facilitated by students from the University of Connecticut's marine biology center;
- Windham Paleontologists with personnel from Connecticut's Dinosaur State Park;
- Young Artists with artists from a local art guild;
- NASA Exploratory Group with Eastern Connecticut State University’s Planetarium Director;
- Young Firefighters with a Windham Fire Lieutenant;
- Forest & Wildlife Biologists with foresters from James Goodwin State Forest;
- Invention Convention with a physicist from the University of Connecticut’s physics labs;
- Detectives with a police officer; and
- 22 other clusters, many facilitated by school staff members.

It was more challenging to locate volunteers for 10 weeks, but those who did volunteer were dedicated and enthusiastic. For professionals who could not commit 10 weeks, there was an option of coordinating a five-week session.
Community volunteers provided an aspect of authenticity well worth the effort involved in contacting and involving them. These cluster facilitators were practicing professionals who had access to authentic resources and equipment and, in some cases, sites not available to a public school. Questions posed by students received answers that provided insights into real professions. Several clusters went on field trips that were designed to expose the children to settings and situations encountered by professionals within each field. The Firefighters went to the local fire department, Life Undersea to an aquarium, Young Lawyers to a courtroom, Chimers Handbell Choir to a church with handbells.

School staff also developed some excellent new clusters for the spring. Exciting things happened in the spring clusters. The Puppeteers Workshop created different puppets each week, and students had an opportunity to act out short plays. The Ukrainian Artists Guild learned about the Ukrainian custom of sharing an egg with a special friend. Students designed and decorated their eggs using wax, dyes, and a stylus. Computer Connection explored advantages of working online, and formed new friendships with pen pals using e-mail. The Windham Horticulture Alliance designed and planted a landscape for the front of Windham Center School under the guidance of two teachers and a landscape architect. A group of younger students in the Sign Language Guild learned how it feels in part to be deaf and learned to communicate with each other using American Sign Language. The Police Academy worked as detectives with a teacher and a detective from the Willimantic Youth Division. They helped “solve” crimes using techniques used by real detectives. Multicultural Society experienced different cultures through food, art, and communication. Young Artists explored the art of stained glass with an instructional assistant who had her own stained glass business and created works of art on slate and glass.

Since the parents were familiar with the cluster program, registration for the clusters was done at school. Students were asked to select three clusters that interested them, then they were placed into one of their choices. This method avoided ranking choices and subsequent disappointment of not receiving a first choice. Some clusters were more popular than others; these included Animal Trainers, Life Undersea, NASA, and Aviators of Windham. Initially, only four students selected the Chimers Handbell Choir, so the facilitator recruited some musically talented students. Due to lack of student interest, two clusters had to be canceled and their would-be facilitators graciously agreed to assist with other clusters.

Maintaining flexibility is key to a successful cluster program. The NASA Exploratory Group began as a cluster for K-2, but it became clear after the first week that the facilitator and content would be better suited to older students. It was originally a 10-week cluster, so after the first five weeks, it was changed to accommodate students in grades 2-5. Many of the students who registered were doing a unit on space, so they were able to make some valuable connections with their classroom learning and bring what they explored in their cluster back to class. Their teacher was delighted, too, explaining that several eager students even had the opportunity to correct her on an astronomy point she made in class. As it turned out, the NASA cluster was so successful the facilitator was recognized by NASA and the White House with a national award, in part for her
involvement with the enrichment clusters at Windham Center School.

**Sharing Products and Services**

Opportunities to share cluster activities accomplished three goals: (a) providing authentic audiences for clusters, (b) organizing Type I experiences for students on a variety of topics, and (c) generating interest in future clusters. After the fall series of clusters, students shared their activities with peers on an informal basis and decided to provide a formal celebration so that students could share their products and cluster experiences. This took place during a product fair as part of "Family Night" at the end of the year with students available to provide explanations. The care and pride in every student product was evident when students described their accomplishments.

Additionally, many clusters shared their products and services in other ways. The school assembled one Friday for a performance by the Windham Chimers Handbell Choir, which generated much interest in future sessions of this cluster. Computer Cluster members became "consultants" when they offered the service of teaching their classmates and teachers about accessing the Internet and using e-mail. The Bluebird Builders constructed several birdhouses and installed them in a nature area that they developed behind the school for everyone to enjoy. The Windham Center School Newspaper developed a newspaper included in Appendix A. In addition, although no pre-planned lessons guide the clusters, a summary of the weekly activities that were developed during the sessions is included in Table 1. This summary information is designed to provide the reader with a feel for the types of things students did in a sample of clusters. Finally, samples of the evaluation instruments used by Windham Center Schools are included in Appendix B on pages 44-48.

**Implications for Other Schools**

As shown by Windham Center School, implementing an enrichment cluster program has several benefits to a school.

First, this program extends gifted education services to all students on a regular basis. Although it is not designed to replace existing gifted programs, nor should it be used to do so, an enrichment cluster program can build a bridge between gifted education and general education programs. All students have interests and can benefit by having those interests addressed during school; enrichment clusters provide a time and framework for doing so.

Second, an enrichment cluster program involves all students and staff in exciting, inductive learning centered around common interests and focused toward developing authentic products and services. Finally, such a program provides schools with a reason to involve community, businesses, and and distributed copies to everyone in the school. Inside were interviews, news articles about events in the school, illustrations, jokes, and features about other clusters such as the Young Paleontologists. Students in Young Paleontologists each conducted "research" on a specific fictitious dinosaur, named their dinosaur using meaningful Latin origins, went on a "dig," and reported findings to classmates in a mock symposium complete with sketches and models.
The Horticulture Alliance developed and planted an original landscape design with flowers and shrubs for the front of the school—a daily reminder of the endeavors of this cluster. The Garners developed original board games, played by their classmates and families. Schoolwide displays were developed by the Windham Firefighters, Young Artists, King Tut: His Tomb and His Treasure, and Sweet Confections. The varied methods of communicating results with audiences helped to enhanced authentic communication skills of students.

**Teacher Reactions**

The most positive reactions about facilitating clusters were from those teachers who chose to pursue their own interests. They often selected topics that had nothing to do with their regular classrooms. The art teacher assisted with a cluster in the fall, but in the spring facilitated a cluster centered around her interest in computers. She admitted that this cluster was definitely a more exciting experience for her. Other teachers became increasingly positive and more relaxed as the year continued.

Some teachers also expressed surprise at what specific students had accomplished in their clusters. For example, in the Windham Chimers Handbell Choir cluster, both the teacher and the students were surprised with the progress and the students’ sheer enjoyment in learning to play and perform. Teachers found that cluster activities carried over into regular curriculum: 3-D structures in a math class were named by students using Latin names they learned in their Paleontology cluster; students in the NASA cluster used what they were doing in their cluster as a basis for a science project in their regular classroom; sign language was observed in the halls and in the classrooms; e-mail was taught by the online cluster members to their classmates. In all, 59% of the teachers said the enrichment cluster program influenced the content and methods in their regular classrooms (Reis, Gentry, & Maxfield, 1998).

Evaluation data were collected from all cluster facilitators and used to modify the program. Virtually every teacher recognized the overwhelming interest in and excitement for clusters by students and saw tremendous value in the program. Everyone agreed that enrichment clusters enhanced learning and students' enjoyment in school. Collectively, the teachers decided to continue the enrichment clusters as a regular part of the Schoolwide Enrichment Model program.

**Parent & Student Reactions**

Parents were overwhelmingly positive toward the cluster program and frequently commented that they were thrilled that their children were able to participate in something during the school day that is generally only available at considerable expense and at considerable distance. Many asked if the program was going to continue. Each parent who inquired was encouraged to become involved in the enrichment program in subsequent years since this involvement was a good way to provide the resources and energy needed to continue and ensure future success.

Students’ enjoyment and interests were apparent in many ways. For example, many chose to pursue cluster activities during their own time. Several students from the Ukrainian Artists chose to use their recess to work on their eggs. Other students from the computer cluster spent their
own time and enrichment time using e-mail. The Invention Convention cluster lasted only five weeks, but two of the students decided to continue work on their inventions. When the spring cluster series was finished, students were anxious to continue. "Are we going to have clusters today?" "When do clusters start again?" "Will we have clusters next year?" Formal evaluations done in each cluster showed that 92% of the students liked their clusters, 95% "learned new things," 92% found their cluster facilitator "interesting," and 95% wanted to be in a cluster again.

The enrichment clusters generated a great deal of interest from the community and several other school districts. Several articles appeared in local papers on the clusters, and many requests to visit the program were received from teachers and administrators from other districts. Those who came to visit were extremely enthusiastic about the program and expressed an avid interest in pursuing it in their school. "How do we begin?" was always a question posed, and invariably other educators left with a small pile of information. Several districts that visited began a cluster program during the next school year.

Resources for Other Schools
To assist others in implementing a cluster program, an annotated list of methodological "how-to" books is parents in a productive manner, thereby helping to develop real partnerships in learning.

With all that currently exists in schools today, some may wonder how a school could possibly afford the time to implement such a program. Given the benefits, one might better ask how a school could afford not to make the time to focus on student strengths, interests, and potentials--and to do so for all of a school’s students--at least once in a while!

References


Author Note
Research for this article was supported under the Javits Act Program (Grant No. R206R00001) as administered by the Office of Educational Research and Improvement, U.S. Department of Education. Grantees undertaking such projects are encouraged to express freely their professional judgment.

This article, therefore, does not necessarily represent positions or policies of the Government,
and no official endorsement should be inferred.

Appendix A
Resources for Developing Enrichment Clusters


This is a complete how-to manual and video training tape for developing a school-wide enrichment cluster program.

The 30-minute video features teachers and students from Windham Center and one other school who describe their experiences in implementing enrichment clusters for the first time. Also described on the video are six easy how-to steps for implementing clusters and the findings from research conducted on enrichment clusters. The training manual describes the clusters, reviews how to develop and implement clusters, provides suggestions for assessment and evaluation, reviews research related to clusters, and contains a section of frequently asked questions.

Most importantly, the manual is completely reproducible and contains every form imaginable from student and teacher surveys, and certificates of participation/appreciation, to evaluation forms and thank-you letters.


This is a comprehensive guide to developing the Schoolwide Enrichment Model and includes a thorough discussion of the rationale for and the steps to implementing enrichment clusters.

Because enrichment clusters are one part of the entire SEM model, this book is highly recommended to assist schools in developing a comprehensive program for gifted and talented students as well as an enrichment cluster program that involves all students in high-end learning.


This is a research monograph in which the results of the study (that involved Windham Center Schools) on enrichment clusters are presented.

This monograph is useful for districts that need to establish a firm basis and rationale for developing similar programs. The most impressive findings were that the clusters positively influenced how teachers taught in their regular classrooms and that there was a tremendous amount of advanced content used in the clusters.
The authors further recommend any of the many how-to books available within the various disciplines that help students and teachers act like professionals from the field.

**Appendix B**
Samples of Evaluation Instruments


**Enrichment Cluster Facilitator Evaluation Form**

Name (Optional): -----

Your feedback and input are essential to the success of the Enrichment Cluster Program. By taking a few minutes to complete the evaluation questions below, you will be assisting us in improving and further developing Enrichment Clusters for your students.

1. What did you enjoy most about facilitating your clusters?
   -----

2. Were the clusters well-organized? How can the program be changed or improved?
   -----

3. What were the students' reactions to your cluster?
   -----

4. What types of Advanced Content did you present in your cluster?
   -----

5. What products (if any) were produced by students in your cluster?
   -----

6. Are you interested in facilitating another cluster? Yes ----- No -----
   If yes, what topic?
   -----

7. Can you recommend other potential facilitators and possible topics for the next session?
   -----
8. What recommendations would you make for scheduling the clusters (i.e., how many sessions, length of sessions)?

-----

9. Other comments?

-----

Thank you!

**Enrichment Cluster Student Evaluation K-2**
Grade: ----- Cluster Name: ----- 

We would like to know how you feel about your experience in your Enrichment Cluster. Please read each statement carefully and circle the face that shows how you feel about each statement. A happy face means you agree with the statement. A face that is neither happy nor sad means that you are not sure how you feel about the statement. A sad face means that you disagree with the statement.

I liked my cluster. Agree -- Dissagree
I learned new things in my cluster. Agree -- Dissagree
My cluster teacher was interesting. Agree -- Dissagree
I would like to be in an Enrichment Cluster again. Agree -- Dissagree

**Enrichment Cluster Student Evaluation 3-6**
Grade: ----- Cluster Name: ----- 

We would like to know how you feel about your experience in your Enrichment Cluster. Please read each statement carefully and circle the number that shows how you feel about the statement. A number 1 means you agree with the statement. A number 2 means that you are not sure how you feel about the statement. A number 3 means that you disagree with the statement.

1. I enjoyed my cluster. 1 2 3 Agree Disagree

2. I learned new information/skills in my cluster. 1 2 3 Agree Disagree

3. My cluster teacher was interesting. 1 2 3 Agree Disagree

4. I would like to be in more Enrichment Cluster 1 2 3 Agree Disagree
Please answer the following questions:

5. I think an Enrichment Cluster should be offered on the following topic:

-----

6. One thing I learned in my Enrichment Cluster was:

-----

7. The thing I liked best about my Enrichment Cluster was:

-----

8. One change I would make to improve my Enrichment Cluster is:

-----

**Parental Attitudes About Enrichment Opportunities**

Name: -----

I am the child's: ----- Mother ----- Father ----- Guardian Child's Grade: ----- 

Following are 10 statements. Please respond to them by circling the number that best represents your answer, using this scale:

1 = Always 2 = Often 3 = Sometimes 4 = Seldom 5 = Never

For the purposes of this questionnaire, enrichment is defined as planned experiences beyond regular classroom work designed to enrich your child's education. Examples include speakers, videos, and interest-based activities that extend learning.

1. My child has opportunities for enrichment experience in school.

2. During school, my child is encouraged to develop and pursue his/her talents.

3. My child develops projects in the classroom that reflect his/her interests.

4. My child has opportunities to work with other students
in his/her classroom who share common interests.

5. My child's school offers 1 2 3 4 5 enrichment opportunities for all students.

6. My child enjoys the 1 2 3 4 5 enrichment opportunities in his/her school or classroom.

7. My child is happy about 1 2 3 4 5 attending school.

8. I am informed about the 1 2 3 4 5 educational enrichment activities for my child at school.

9. I have the opportunity 1 2 3 4 5 to become involved with enrichment opportunities in school.

10. I am satisfied with 1 2 3 4 5 enrichment opportunities/ experiences my child receives at school.

Please comment briefly on the following items (use the back of the page if needed).

What do you like most about your child’s school experience?
What changes would you like to see made regarding your child’s school or classroom experiences?
Please provide other comments that will help us understand your attitude toward school and satisfaction with your child's experience in his/her classroom at school.

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By Marcia Gentry; Carol Moran and Sally M. Reis

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