Enrichment Clusters

A Practical Plan for Real-World, Student-Driven Learning

Joseph S. Renzulli, Marcia Gentry, & Sally M. Reis
University of Connecticut

www.gifted.uconn.edu
www.purdue.edu/geri
“Suddenly I remembered why I had gone into teaching in the first place. I had forgotten and I didn’t even know I had forgotten. Then I remembered what I always thought teaching would be all about.”

Teacher from the Enrichment Cluster Research Project
Inservice in Review

- Introductions
- Questions, Needs
- The Big Picture
- Simulation
- The Nitty Gritty Details
- Planning
- Samples
- Academies...extension
- Review of the Research
- More Q & A .... Whew!
ENRICHMENT CLUSTERS

a practical plan for real-world, student-driven learning

Joseph S. Renzulli, Marcia Gentry, & Sally M. Reis
1.1 In The Beginning …

✔ Questions, Concerns, Issues

✔ In Small Groups, generate the top 5-10 things you want to make sure you understand at the conclusion of this inservice session.

✔ Done … any additions?
Developing Capacity (1.3, 1.4)

✔ What do we want for children after 13 years in school?
✔ Mission?
✔ What do you remember about School?
✔ Why are you a teacher?

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Each Learner is unique … therefore all learning experiences must take into account the abilities, interests, and learning styles of the individual.

Learning is more effective when students enjoy what they are doing … therefore learning experiences should be constructed with as much concern for enjoyment as for other goals.
Capacity … High End Learning

✔ Learning is more meaningful and enjoyable when content and process are learned within the context of a real and present problem … therefore

✔ Some formal instruction may be used in high-end learning, but a major goal of this approach is to enhance knowledge and thinking … through application of knowledge and skills from the students’ construction of meaningfulness

Renzulli, Gentry,& Reis, 2019
Theme: A rising tide lifts all Ships

“We immediately recognized the value of the enrichment clusters for all students and the profound effects that they had on the attitudes of students, staff and parents. It was as if everyone was excited and had something to look forward to.”

Assistant Principal, enrichment clusters site

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Why clusters?

- Creates a special time for schoolwide enrichment ensuring all staff and all students are involved in Enrichment Learning and Teaching and high end learning … interest, strength based, student focused and driven …

- Without these not all kids would have the opportunity for such learning
Knowledge/Background (2.1)

What are Enrichment Clusters

- Specially designated time blocks during school in which students and facilitators are grouped according to strengths and interests and come together over an extended period.
- Interest-based, student driven, real world learning experiences in which students apply advanced content and methods to develop products and services for authentic audiences … like practicing professionals.
Major Features of Enrichment Clusters

Theme: Every student is special if we create conditions that make each student a specialist in a specialized group.

1. **The Golden Rule of Enrichment Clusters**: All activity is directed toward the production of a product or service.

2. Students *and* teachers select the clusters in which they will participate. *All* students and teachers are involved.

3. Students are grouped across grade levels by interest areas.

4. There are no predetermined lesson or units plans.
Major Features of Enrichment Clusters

Theme: Every student is special if we create conditions that make each student a specialist in a specialized group.

5. The authentic methods of professional investigators are used to pursue products and service development.

6. Divisions of labor are used to guarantee that all students are not doing the same thing.

7. Specially designated time blocks are set aside for clusters.

8. The Silver Rule of Enrichment Clusters: The rules of regular school are suspended!
Goals of Enrichment Clusters

✔ To provide students with opportunities, resources, and encouragement to apply their interests, knowledge, thinking skills, creative ideas, and task commitment to self-selected problems or areas of study.

✔ To acquire advanced-level understanding of the knowledge and methodology used within particular disciplines, artistic areas of expression and interdisciplinary studies.

✔ To develop authentic products, performances, or services that are directed primarily 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, "cooperativeness," decision making, and self-evaluation.

✔ 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.

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Knowledge/Background (2.1)

But there is already so much to do …

- Goal to involve all students and teachers in areas of strengths/interests to develop products/services using advanced methods and content … how does such learning square with the real mission of school?

- Cluster skills (for students and teachers) transfer to the general classroom thereby improving education in general
Knowledge/Background (2.1)

But there is already so much to do …

- Value of this program for at-risk children and youth is tremendous … and many of these children otherwise would not have the opportunity for the type of authentic learning that occurs in enrichment clusters.

- We spend an inordinate amount of time trying to “fix” students … so, too should we spend time focusing on and enhancing their strengths, interests, and skills … EC do this.
Knowledge/Background (2.1)

✔ But there is already so much to do ...

- How can we afford NOT to take the time
- Staff talent development occurs via working with students in areas of mutual interest ...
- This makes the school smaller
- What is the mission? Does the EC concept square with it?
Clusters: The good, the bad, the ugly

- Read your sample cluster (A, B, C, D, or E.--pp 99-100)
- Prepare to offer your assessment of how well your sample cluster addressed the following (p. 101)
  - Advanced Content
  - Authentic Methods
  - Product and/or Service
  - Student Driven
  - Authentic Audience
- Offer suggestions for improving any identified weaknesses
Freedom to Teach: Jigsaw Chapter 1

✔ Facilitators, work with groups to jigsaw chapter 1

✔ Assignments,

✔ Report from groups
Planning: Before we begin

✔ #1 Rule to build ownership, improvement & problem solving

When a new program is developed and implemented there are going to be problems. We want to identify these problems and work toward solving them. Therefore, identify all the problems you want and at the same time offer solutions for dealing with them. In doing so, we will avoid complaints and criticism and foster problem solving and program development.
Planning: OK, the details, 7 easy steps (Ch. 3, 4.1)

✔ Step 1: Learn about student and staff interests (pp. 38-40)
  • Interest Assessment (student/staff)
  • Count frequencies of popular topics, seek facilitators
  • There will be a mis-match, which is OK, as interests will also be developed
  • Don’t have to be an expert, just willing
  • Use interest information in the general education program
Planning: OK, the details, 7 easy steps (4.1, 4.3)

✔ Step 2: Setting up the Wall Chart
  - See Pages 21, 40-42, 75
  - What areas would your school have
  - What topics might you offer
## Sample Enrichment Clusters

<table>
<thead>
<tr>
<th>General Areas</th>
<th>Specific Examples of Clusters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language Arts, Literature, and the Humanities</td>
<td>The Young Authors' Guild&lt;br&gt;The Poets’ Workshop&lt;br&gt;The African-American Literary Society&lt;br&gt;The Investigative Journalism Group&lt;br&gt;<em>The Quarterly Review of Children's Literature</em></td>
</tr>
<tr>
<td>Physical and Life Sciences</td>
<td>The Save the Dolphins Society&lt;br&gt;The Physical Science Research Institute&lt;br&gt;The Mansfield Environmental Protection Agency&lt;br&gt;The Experimental Robotics Team</td>
</tr>
<tr>
<td>The Arts</td>
<td>The Electronic Music Research Institute&lt;br&gt;The Visual Artists’ Workshops&lt;br&gt;The Meriden Theater Company&lt;br&gt;The Native American Dance Institute&lt;br&gt;The Video Production Company&lt;br&gt;The Young Musicians' Ensemble&lt;br&gt;The Photographers' Guild</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>The Hispanic Cultural Awareness Association&lt;br&gt;The Junior Historical Society&lt;br&gt;The Social Science Research Team&lt;br&gt;The Torrington Geographic Society&lt;br&gt;The Creative Cartographers' Guild</td>
</tr>
<tr>
<td>Mathematics</td>
<td>The Math Materials Publication Company&lt;br&gt;The Math Mentors' Association&lt;br&gt;The Female Mathematicians' Support Group&lt;br&gt;The Mathematics Competitions League&lt;br&gt;<em>The Math Puzzle Challenge Quarterly</em></td>
</tr>
<tr>
<td>Physical Education</td>
<td>The Experimental Games Research Team&lt;br&gt;The Physiology of Sport Study Group&lt;br&gt;The Physical Fitness Support Group&lt;br&gt;The Institute for the Study of Multicultural Recreation</td>
</tr>
<tr>
<td>Industrial Arts/ Home Economics</td>
<td>The Creative Furniture Design Company&lt;br&gt;The Architecture for Learning Research Team&lt;br&gt;The Experimental Dietary Group&lt;br&gt;The Future Fashion Research Institute&lt;br&gt;The Child Care Assistance Group</td>
</tr>
</tbody>
</table>
Planning: OK, the details, 7 easy steps (4.1)

✔ Step 3: Creating a Schedule (pp. 43-48)

- What day(s) of the week
- What time and how long
- How many sessions
- How many series per year
- How can we consider specials, content, etc.
- In what ways can this become part of the school and community expectations

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Planning: OK, the details, 7 easy steps (4.1)

✔ Step 4: Locating Facilitators (pp. 48-53)

- Faculty & Staff & School Employees
- Community
  - Retirees
  - Religious organizations
  - Service Clubs
- Businesses
  - Colleges/Universities
  - Education Partners
  - Federal/State Agencies
  - Government
- Parents, PTO
- Other Students
- Preservice teachers
Planning: OK, the details, 7 easy steps (4.1)

✔ Step 4: Locating Facilitators

- Create descriptions of sessions with or without facilitator bio
- Allow facilitators to determine the ages and number of students they can accommodate
- Create registration information sheet from this information
- Let’s discuss non-certified staff…
Planning: OK, the details, 7 easy steps (4.1)

✔ Step 5: Provide Facilitator Orientation (pp. 54-55)

- Goals, Philosophy, & Focus of EC
- Simulation and Information (you are here)
- Assist with the development of individual visions for each cluster that align with the goals and philosophy of EC
- Provide on-going support/encouragement

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Step 6: Registration (pp. 55-58)

- Send home or not (depends on the site)
- Have students choose, unranked, their top 3, might have to explain that they won’t be assigned according to friends …
- Create a data base that will generate class lists (teacher, facilitator, office) and nametags
- All are not the same size … it depends on the nature of the cluster
- Consider things such as ages, gender, ability, student/teacher ratio, extra supervision, appropriateness of choices
Planning: OK, the details, 7 easy steps (4.1)

✔ Step 7: Celebrate your success (pp. 58-59)
  • Publicize
  • Product/Service Fair
  • Portfolio Certificates
  • Thank you letters
  • Many ideas
Celebration Ideas

Cluster Celebration Outlets

Newsletter
School TV
National TV

Banner behind airplane
News/Magazine article

Slide show
PTA meetings

Reception
Product fair

Banquet
Product rap for radio/TV

Open house
Photo album

Invite a news reporter
Letters to celebrities

Invite a school board member
Breakfast celebration

Who’s Who directory
Service vendor fair

Portfolio recognition
Portfolio certificates

Web site
Cut a record or CD

Voyager bulletin boards
Displays at school

Share at conferences
Displays at malls

Programs at retirement homes
Newspapers

“Parade of Products”

TV report

Kids’ show

District cable outlet

Billboard

Video/slide show

School assembly

Brochure

Scholastic Network

Talent fair

Programs at hospitals

Board of Education

Historical society

Programs for service clubs

High school

University groups
Planning: Your Turn (4.1)

- On Chart Paper, List one of the steps (1-7).
- Discuss in groups ways of addressing this step.
- Record your ideas.
- When you’re tired of your step, trade with another group.
- Repeat, until you’ve read and added to each step.
- Use results for planning in your building.
On-Going Support

✔ Orient New People (Ch 5-p.118)
✔ Move from mini-course to EC (p. 118)
✔ Involve reluctant staff (p. 119)
✔ Elevate the level of content and methods (pp. 72-76; 120)
On-Going Support: Efforts and Outcomes
(5.1, & p. 122)

✔ Debrief after the first series

✔ How were the following things addressed?
  - Advanced Content
  - Authentic Methods
  - Product/Services
  - Student Direction
  - Authentic Audiences

✔ What did you do exceptionally well?

✔ What do you suggest for improvement?
On-Going Support: Efforts and Outcomes
(5.1, & p. 122)

✔ First alone, then in group
✔ This will help model for future efforts
✔ Collect responses for use in evaluation

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Evaluation (pp. 124-126)

✔ Student data
  • Feedback forms (pp. 127-129)
  • SPAF (pp. 130-138)
  • My Class Activities (Gentry & Gable, 2001, www.purdue.edu/geri then click instrument repository)

✔ Facilitator data
  • Feedback forms (pp. 139-144)
  • Content/Methods form (p. 145-147)
  • Data from activity 5.1

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Evaluation (pp. 124-149)

✔ Parent
  • Parent attitudes … (pp. 148-149)
  • Existing surveys
  • Informal information

✔ Program
  • Summary of student, facilitator, and parent evaluations
  • Number and nature of products/services
  • Audiences affected by products/services
  • Percentages of clusters/students involved in product/service completion
  • Summary of the advanced methods and content
  • Relationship to State/Local standards

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Examples

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Examples
Examples
Examples

Girls’ designs: from drawings to dresses

By DONNA LARSEN
Courant Staff Writer

Two Connecticut girls have achieved something many aspiring designers never accomplish: A manufacturer has turned their sketches into real dresses.

Ashley Eve Speranza, 10, of Wethersfield, and Stephanie Donohue, 7, of Wolcott, won the annual holiday dress design contest sponsored by Filene’s and Rare Editions, a children’s clothing maker based in New York.

The Connecticut girls competed against 3,000 entrants from the 33 Filene’s stores in New England and northern New York. Stephanie won in the size 4 to 6X division and Ashley in the size 7 to 14 sector. The prize was a custom dress from Rare Editions and an invitation to a Filene’s fashion show.

Both girls were invited to model their dresses at the Chestnut Hill Filene’s in Newton, outside Boston, on Nov. 12. Stephanie’s parents declined, but Ashley’s accepted and the three of them rode to the event in a stretch limousine provided by Filene’s.

“Thanks where they gave me my dress.”

Please see Girls’, Page A11

Girls’ dress designs go from fantasy to frocks

Continued from Page A9

said Ashley. Her parents were pleased with the contest when it was run through G. Fox & Co. Now she has two special dresses in her closet.

“Last year she didn’t specify the exact colors and trim,” said Elaine G. Speranza. “This year she was more specific.”

This year’s design showed a white headpiece and white muff, a maroon velvet fabric with peach lace ruffle, a Christmas green belt with bow tie in back and a green fabric rose at the shoulder. Ashley, like Stephanie, drew her sketch on the Filene’s single page form and colored it in with crayons.

“We’re looking for dresses that the kids obviously drew themselves,” said Lisa Welten from Rare Editions. Designers and account executives go through the entries from Filene’s and other stores with similar contests to come up with the winning entries.

“We’re also looking for dresses that can be made by us,” Welten said. Rare Editions is known for special occasion and holiday dressing for children. Its label is carried in many department stores.

The call for entries went out in August at all Filene’s stores.

“My mother-in-law brought from the entry form,” said Diana Donohue. Stephanie’s mother.

“Stephanie is a child who is constantly drawing, so we thought she’d like to enter the contest.”

Stephanie “doesn’t really like to go clothing shopping yet.” Donohue said. “Her grandmother buys many of her clothes. Stephanie is just as happy to wear a juggling suit.”

Stephanie and Ashley will wear their dresses for some family parties.

Ashley and her mother had a special portrait taken last week at Sloan Mills photography in Rocky Hill. In her photo, Ashley wore her prize-winning gown and held Samantha, an American Girl Doll she received for her birthday, who was dressed in a matching maroon velvet outfit and long dark curled hair that mirrors Ashley’s.

“I do her hair,” her mother said of her daughter. “A little curling iron magic.”

As the young woman sat up in the studio the photographer instructed her to smile.

“You have a beautiful smile,” the photographer said.

Ashley grinned.

“She’s used to being heard that,” her mother whispered. “Her father and I tell her that all the time.”
Goals of high-end learning

- Find and focus personally relevant problems
- Use knowledge to solve problems
- Plan, evaluate, choose, and sequence tasks to solve problems
- Monitor and assess involvement and need for information and skills
- Notice patterns, relationships, discrepancies in information … use and refine
- Generate reasonable arguments and explanations, predict, value, work cooperatively
- Examine problem solving strategies and transfer to other situations
- Communicate in lively and professional ways to various audiences
Defining a Real Problem: What Makes it Real?

1. Has a personal frame of reference
2. Is open-ended without an existing solution or predetermined “right” answer
3. Employs authentic methodologies & advanced content
4. Developed for an authentic audience
Guidelines for Academies/Clusters

1. Focus on application of content and process
2. Student/Facilitator choice
3. Cross grade grouping by interest
4. No predetermined unit or lesson plans
5. Guide Clusters with authentic methods, advanced content and materials that investigators and creative professionals use
6. Develop multiple talents through divisions of labor
7. Set aside specially designated time blocks for EC
8. Suspend customs of regular school
Developing your own AITD/EC

✔ Reverse the teaching equation
✔ Reverse the role of students
✔ Focus on Uniqueness of each EC
✔ When in doubt look outward
Developing your own AITD/EC

1. Selecting a topic
   - Inspiration
   - Expert
   - Or not
2. Examining/Exploring Key Questions

- What do people with an interest in this area do?
- What products/services do they create/provide?
- What methods do they use to carry out their work?
- What resources/materials are needed to produce high quality products/services?
- How and with whom do they communicate the results of their work?
- What steps are needed to have an impact on intended audiences?
Developing your own AITD/EC

3. Writing your AITD/EC Description
   - Avoid “learn, class & club”
   - Pose questions about potential student interest and involvement
   - Mention opportunities or possibilities for exploration, while avoiding language that implies too much pre-planning
   - Brainstorm appealing names
Language Arts, Literature, and the Humanities

➢ The Poets’ Workshop

What is it like to be a poet? Explore the poetry of some of America’s greatest poets, including Robert Frost, Langston Hughes, Emily Dickinson and others. Write, illustrate, and perform original poems or interpret others’ work. Identify outlets for our work.

➢ American Sign Language

How do people communicate without using a voice. In this cluster, American Sign Language will be introduced through both words and songs. Decide what to do with your new found language. Who might be your audience?
Physical and Life Sciences

- **Invention Convention**
  Are you an inventive thinker? Would you like to be? Come to this cluster to brainstorm a problem, try to identify many solutions, and design an invention to solve the problem. Create your invention individually or with a partner under the guidance of Bob Erickson and his colleagues. You may share your final product and the Young Inventor’s Fair, a statewide, day-long celebration of creativity.

- **Flight School**
  Pilot your own helicopter! Discover how and why a glider flies and build one to test your ideas. Construct a rubber-powered model airplane and launch your own rocket to understand more about Bernoulli’s Principle and Newton’s Third Law. Discover the history of flight and the science of simple machines. You will be able to plan and complete your own project and experience one of life’s greatest rewards, “taking two steps back to admire your own work.” Mr. Schimmel is a former teacher, director of an environmental education center, and currently a school administrator in Mansfield. He obtained his pilot’s license in 1981 and continues to enjoy learning about why and how bats, birds, and boomerangs—as well as numerous man-made machines—manage to FLY! Mrs. Latino is a fourth grade teacher at Southeast School who has a variety of interests, including skiing and sailing.

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Creative Puppetry

So you want to be a puppeteer? Come design and create several different kinds of puppets, such as finger puppets, hand puppets, marionettes, and more. Experiment with and develop your own character. Write, direct, or star in a puppet show by bringing your puppets to life in a performance. The stage and your imagination are the only limits.

Cartooning

Doodle, draw, and dabble in the life of comic strip artists and cartoonists. This cluster is for both new and experienced illustrators, artists, and cartoonists. Come prepared to turn on your imagination and creativity. Create your own comical characters and produce a comic strip series for syndication in our crazy comic club or submit your work for publication in another outlet. Samantha Dunnack is a well-read fan of the funnies.

The Chimers: A Handbell Choir

Do you love music? Become a member of the cluster handbell choir, learn the techniques associated with this type of music, and play, compose, and prepare for authentic performances.
Social Sciences

Creative Problems, Creative Solutions

Are you interested in becoming involved in the community? Do you have a desire to help others? Identify various problems in our communities or lives and solve them using creative problem solving. Apply creative problem solving to other situations and create and enact your solutions.

Children’s Rights’ Institute

“That’s not fair!” Have these words ever come out of your mouth? What is the difference between whining and real problems? What are the rights of people under 18 years old? Explore laws that define how you live and how they may be different from the laws that determine how other kids live. Develop a plan for action.

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Mathematics

Survey Said . . .

Do you want to find out what people think about things? Survey your friends, your family, or the community about something you’ve always wanted to know. Organize their responses in a creative way. Decide how to share this information. Develop and conduct a survey and communicate your results in this exciting enrichment cluster.

Numbers, Mathematics, and Games

Come create, produce, and play game with mathematics. What makes a good game and how have games been used in education and in cultures? What can be done with new games? Explore these questions and more on your quest to develop the next game that everyone is talking about.

Bold Folds

Can paper frogs jump? Explore this and other questions in a cluster about the Chinese art of Origami. Research the history of Origami and find out how it is used today. Connect Origami to geometry. Produce you own 3-dimensional figures out of paper by practicing with existing designs or designing and creating your own! Decide what can be done today with Origami.
Computers and Technology

Video Production

Become a movie maker and produce a video for a box office audience. Show your creativity and movie-making panache through the camera lens and on the big screen. Learn tricks and techniques of the trade while developing your film.

Web Site Designers

Are you interested in web site design. Explore the how, what, and why of web design. Sharpen your skills and determine a product or service and begin creating. Work alone or with a design team.

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Physical Education

➤ **Cultural Stompers Institute**

In this cluster, you will be able to design an interactive process that will facilitate cultural diversity and rhythmic stomping movements. You can use your skills to design costumes or develop different and unique steps. Create community performances, workshops, and beyond.

➤ **Spring Training**

Come try activities designed to enhance your total body awareness. Discover how to use your minds to become more skillful, fit, and knowledgeable about your physical abilities. Brainstorm and determine ways to have an impact on ourselves and others who may not have an interest in personal fitness. Personal trainers, physical education teachers, **Dr. Michael Gerich** and **Kelli MacFarlane** will guide you through this cluster.

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Industrial Arts/Home Economics

Culinary Arts Institutes

Is cooking and eating your thing? How does a chef differ from a cook? What makes good food great? Join Chef Roger in a culinary journey. Develop skills and identify products and services to which to apply your love of cooking and eating. The kitchen is big!

Habitat for Humanity

Are you interested in construction and tools as well as making a difference in the community. If so, this cluster is for you. Join Habitat for Humanity in our town as we work to develop livable residences for elderly and needy residents.

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Developing your own EC

4. Launching your AITD/EC
   • Introductions
   • Display tools/products
   • Speaker
   • Facilitate brainstorm about possibilities such as in our simulation
   • Student choice, student directed, student centered
Enjoyment
Engagement
Enthusiasm
Developing your own AITD/EC

5. Escalation of Content & Process

- Have an interest in topic and feel for content escalation
- Know how to find resources
- Organize activities so that knowledge escalation is pursued and hands-on
- Document level of advanced content/process
### Facilitator's Content/Methods Reporting Form

Please complete and return to the EC team by __________

<table>
<thead>
<tr>
<th>In your cluster did you:</th>
<th>Yes/No</th>
<th>If &quot;yes,&quot; please provide examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduce new concepts and advanced content?</td>
<td></td>
<td></td>
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<tr>
<td>2. Help students develop a product or service?</td>
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<tr>
<td>3. Use advanced vocabulary related to the subject?</td>
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<td>4. Teach specific, authentic methods?</td>
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<td>5. Use authentic “tools” related to the topic?</td>
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<td>6. Use advanced resources and reference materials?</td>
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<td>7. Integrate advanced thinking and problem solving strategies?</td>
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<td>8. Encourage the use of creative thinking?</td>
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<td>9. Help students create presentations or performances?</td>
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<td>10. Encourage student directed learning and choices?</td>
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<td>11. Respond to student interests?</td>
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<td>12. Involve students in hands-on activities?</td>
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<tr>
<td>13. Pose open-ended questions?</td>
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<tr>
<td>14. Integrate historical perspectives related to the content?</td>
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</tbody>
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Encouraging Authentic Products and Services: Super Hint #1

Think Data, Think Instruments
## Data-Gathering Instrument and Techniques

<table>
<thead>
<tr>
<th>Instrument/Technique</th>
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</tr>
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<tbody>
<tr>
<td>Interview</td>
<td>Water Test Kit</td>
</tr>
<tr>
<td>Questionnaire</td>
<td>Oxygen Analyzer</td>
</tr>
<tr>
<td>Rating Scale</td>
<td>Colorimeter</td>
</tr>
<tr>
<td>Rank Order Instrument</td>
<td>Air Flow Indicator</td>
</tr>
<tr>
<td>Observation Record</td>
<td>Magnifier</td>
</tr>
<tr>
<td>Sociometric Device</td>
<td>Microscope</td>
</tr>
<tr>
<td>Q Sort</td>
<td>Telescope</td>
</tr>
<tr>
<td>Test</td>
<td>Litmus Paper/pH Meter</td>
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<tr>
<td>Salt Analyzer</td>
<td>Scale</td>
</tr>
<tr>
<td>Conductivity Meter</td>
<td>Ruler</td>
</tr>
<tr>
<td>Metal Detector</td>
<td>Tape Measure</td>
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<tr>
<td>Dissecting Kit</td>
<td>Volt Meter</td>
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<tr>
<td>Microtome</td>
<td>Amp Meter</td>
</tr>
<tr>
<td>Radiation Detector</td>
<td>Ohm Meter</td>
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<td>Solar Cell</td>
<td>Light Meter</td>
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<tr>
<td>Micrometer</td>
<td>Sound Meter</td>
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<tr>
<td>Biofeedback Monitor</td>
<td>Spectroscope</td>
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<tr>
<td>Respiratory Flow Meter</td>
<td>Oscilloscope</td>
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<tr>
<td>Sextant</td>
<td>Thermometer</td>
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<tr>
<td></td>
<td>Anemometer</td>
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<tr>
<td></td>
<td>Hydrometer</td>
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<td>Barometer</td>
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<td></td>
<td>Audiometer</td>
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<tr>
<td></td>
<td>Eye Chart</td>
</tr>
<tr>
<td></td>
<td>Blood Pressure Monitor</td>
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<td></td>
<td>Color Blindness Test</td>
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<td></td>
<td>Pedometer</td>
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<td></td>
<td>Physiograph</td>
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<td></td>
<td>Maze</td>
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<tr>
<td></td>
<td>Camera</td>
</tr>
<tr>
<td></td>
<td>Tape Recorder</td>
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<tr>
<td></td>
<td>Video Recorder</td>
</tr>
<tr>
<td></td>
<td>Excavation Tool</td>
</tr>
</tbody>
</table>

Renzulli, Gentry, & Reis, 2019
Encouraging Authentic Products and Services: Super Hint #2

Learn all you can about *How-To Books* in the area(s) of your student’s interests
New!

HISTORY DOCUMENTARIES
A comprehensive guide to video for students

by Deborah D. Bowman

ARCHAEOLOGY FOR KIDS
Uncovering the Mysteries of Our Past
25 Activities
Richard Panchyk

MY BACKYARD HISTORY BOOK
David Weitzman

"Oral History Manual"

BARBARA W. SOMMER AND MARY KAY QUINLAN

WRITING FAMILY HISTORIES AND MEMOIRS
KIRK POLKING

New!
Encouraging Authentic Products and Services: Super Hint #3

Help students explore the full range of product options.

Decorate the school environment with numerous types of products from various disciplines.
## Models/Construction Products

<table>
<thead>
<tr>
<th>Drama sets</th>
<th>Gardens</th>
<th>Bird houses</th>
<th>Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sculpture</td>
<td>Dioramas</td>
<td>Bulletin boards</td>
<td>Robots</td>
</tr>
<tr>
<td>Relief map</td>
<td>Shelters</td>
<td>Circuit boards</td>
<td>Machines</td>
</tr>
<tr>
<td>Habitat</td>
<td>Collections</td>
<td>Paper engineering</td>
<td>Rockets</td>
</tr>
<tr>
<td>Bridges</td>
<td>Ceremonies</td>
<td>Puppet theaters</td>
<td>Play facilities</td>
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<tr>
<td>Inventions</td>
<td>Learning centers</td>
<td>Computer programs</td>
<td>Quilts</td>
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<tr>
<td>Food</td>
<td>Pottery</td>
<td>Computers</td>
<td>Multimedia presentation</td>
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<tr>
<td>Vehicles</td>
<td>Working models</td>
<td>Documentaries</td>
<td>Hydroponic farms</td>
</tr>
<tr>
<td>Fitness trails</td>
<td>Ant farms</td>
<td>Exhibitions</td>
<td>Masks</td>
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<tr>
<td>Microscopes</td>
<td>Buildings</td>
<td>Interviews</td>
<td>Robots</td>
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<tr>
<td>Microscope slides</td>
<td>Toys</td>
<td>Scale models</td>
<td>Gifts</td>
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<tr>
<td>Aqueducts</td>
<td>Games</td>
<td>3-d figures</td>
<td>Catalogs</td>
</tr>
<tr>
<td>Terrariums</td>
<td>Books</td>
<td>Graphs</td>
<td>Mazes</td>
</tr>
<tr>
<td>Greenhouses</td>
<td>Solar collectors</td>
<td>Furniture</td>
<td>Blueprints</td>
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</table>
# Product Planning Guide

<table>
<thead>
<tr>
<th>Written Products</th>
<th></th>
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<tbody>
<tr>
<td>Pamphlets</td>
<td>Parables</td>
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<td>Brochures</td>
<td>Advertisements</td>
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<tr>
<td>Books</td>
<td>Laws</td>
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<tr>
<td>Speeches</td>
<td>Graphs</td>
</tr>
<tr>
<td>Captions</td>
<td>Notes</td>
</tr>
<tr>
<td>Charts</td>
<td>Diaries/journals</td>
</tr>
<tr>
<td>Radio programs</td>
<td>Poetry</td>
</tr>
<tr>
<td>Instructions</td>
<td>Marketing plans</td>
</tr>
<tr>
<td>Interview questions</td>
<td>Comic strips</td>
</tr>
<tr>
<td>Outlines</td>
<td>Jokes/riddles</td>
</tr>
<tr>
<td>Simulations</td>
<td>Slogans</td>
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<td>Recipes</td>
<td>Songs/lyrics</td>
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<tr>
<td>Legends</td>
<td>Questionnaires</td>
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<tr>
<td>Definitions</td>
<td>Invitations</td>
</tr>
<tr>
<td>Bibliographies</td>
<td>Story boards</td>
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<td>Rhymes</td>
<td>Greeting cards</td>
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<tr>
<td></td>
<td>Analyses</td>
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<tr>
<td></td>
<td>Epics</td>
</tr>
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<td>Web pages</td>
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<td>Autobiographies</td>
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<td>Flow charts</td>
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<td>Amendments</td>
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<td>Family trees</td>
</tr>
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<td></td>
<td>Position statements</td>
</tr>
<tr>
<td></td>
<td>Banners</td>
</tr>
<tr>
<td></td>
<td>Plays/skits</td>
</tr>
<tr>
<td></td>
<td>Letters/postcards</td>
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<td>Crossword puzzles</td>
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<td>Summaries</td>
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<td></td>
<td>Consumer reports</td>
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<tr>
<td></td>
<td>Articles (newspaper, journal, etc.)</td>
</tr>
<tr>
<td></td>
<td>Lists</td>
</tr>
<tr>
<td></td>
<td>Budgets</td>
</tr>
<tr>
<td></td>
<td>Criteria listings</td>
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<td></td>
<td>Census reports</td>
</tr>
<tr>
<td></td>
<td>Folktales</td>
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<td>Graphic organizers</td>
</tr>
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<td></td>
<td>Story problems</td>
</tr>
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<td></td>
<td>Public service announcements</td>
</tr>
<tr>
<td></td>
<td>Ethnography</td>
</tr>
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<td></td>
<td>Maps</td>
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<td>Timelines</td>
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<td></td>
<td>Multimedia presentations</td>
</tr>
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<td></td>
<td>Discussion group questions</td>
</tr>
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<td></td>
<td>Limericks</td>
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<td>Grants</td>
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</table>
# Product Planning Guide

## Artistic Products

<table>
<thead>
<tr>
<th>Architecture</th>
<th>Batik</th>
<th>Landscaping</th>
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<tbody>
<tr>
<td>Murals</td>
<td>Exhibits</td>
<td>Terrariums</td>
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<tr>
<td>Decoration</td>
<td>Cartoons</td>
<td>Mosaic</td>
</tr>
<tr>
<td>Sculpture</td>
<td>Book covers/designs</td>
<td>Collage</td>
</tr>
<tr>
<td>Filmstrips</td>
<td>Fabric design</td>
<td>Silk screens</td>
</tr>
<tr>
<td>Slide shows</td>
<td>Maps</td>
<td>Movies</td>
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<tr>
<td>Comic strips</td>
<td>Mobiles</td>
<td>Videos</td>
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<tr>
<td>Yearbook</td>
<td>Fashion design</td>
<td>Computer graphics</td>
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<tr>
<td>Advertisements</td>
<td>Jewelry</td>
<td>Aquariums</td>
</tr>
<tr>
<td>Drawing</td>
<td>Diorama</td>
<td>Painting</td>
</tr>
<tr>
<td>Graphic design</td>
<td>Furniture design</td>
<td>Web pages</td>
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<tr>
<td>Photography</td>
<td>Wood carvings</td>
<td>Package design</td>
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<td>Engraving</td>
<td>Political cartoons</td>
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<td>Etching</td>
<td>Horticultural design</td>
<td>Posters</td>
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<table>
<thead>
<tr>
<th>Puzzles</th>
<th>Car designs</th>
<th>Maps</th>
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<tbody>
<tr>
<td>Maps</td>
<td>Sewing</td>
<td>Puppets</td>
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<td>Sewing</td>
<td>Set design</td>
<td>Tin ware</td>
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<tr>
<td>Puppets</td>
<td>Iron work</td>
<td>Pottery</td>
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<tr>
<td>Set design</td>
<td>Weaving</td>
<td>Calligraphy</td>
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<tr>
<td>Tin ware</td>
<td>Multimedia presentations</td>
<td>Tessellations</td>
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</table>
## Product Planning Guide

### Spoken Products

<table>
<thead>
<tr>
<th>Debates</th>
<th>Lecture</th>
<th>D. J. Shows</th>
<th>Book talks</th>
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<tbody>
<tr>
<td>Speeches</td>
<td>Mock trials</td>
<td>Panel discussions</td>
<td>Chronicles</td>
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<td>Radio plays</td>
<td>Songs</td>
<td>Celebrity roasts</td>
<td>Forums</td>
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<td>Advertisements</td>
<td>Sales promotions</td>
<td>Narrations</td>
<td>Sign language</td>
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<td>Poetry readings</td>
<td>Simulations</td>
<td>Sermons</td>
<td>Puppet shows</td>
</tr>
<tr>
<td>Storytelling</td>
<td>Demonstrations</td>
<td>Dedication ceremonies</td>
<td>Book shows</td>
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<tr>
<td>Poetry for two voices</td>
<td>Phone conversations</td>
<td>Weather reports</td>
<td>Audiotapes</td>
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<td>Interviews</td>
<td>Eulogies</td>
<td>Rap songs</td>
<td>Infomercials</td>
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<td>Oral histories</td>
<td>Announcements</td>
<td>Town crier</td>
<td>Master of ceremony</td>
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<tr>
<td>Newscasts</td>
<td>Comedy routines</td>
<td>Guided tours</td>
<td>Oral reports</td>
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### Performance Products

<table>
<thead>
<tr>
<th>Skits</th>
<th>Dance</th>
<th>Films/videos</th>
<th>Interpretive song</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role playing</td>
<td>Mime</td>
<td>Reader’s theater</td>
<td>Composition</td>
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<td>Simulations</td>
<td>Puppet shows</td>
<td>Poetry readings</td>
<td>Chorale</td>
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<td>Theatrical performance</td>
<td>Dramatic monologues</td>
<td>Improvisations</td>
<td>Concerts</td>
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<td>Vocal</td>
<td>Comic performances</td>
<td>Musical performance</td>
<td>Parades</td>
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<tr>
<td>Athletic events</td>
<td>Demonstrations</td>
<td>Experiments</td>
<td>Reenactments</td>
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</table>
# Product Planning Guide

## Visual Products

<table>
<thead>
<tr>
<th>Videos</th>
<th>Layouts</th>
<th>Ice sculptures</th>
<th>Maps</th>
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</thead>
<tbody>
<tr>
<td>Slide/digital photo shows</td>
<td>Models</td>
<td>Demonstrations</td>
<td>Diagrams</td>
</tr>
<tr>
<td>Computer printouts</td>
<td>Pottery</td>
<td>Cartoons</td>
<td>Mobiles</td>
</tr>
<tr>
<td>Sculptures</td>
<td>Proclamations</td>
<td>Travel brochures</td>
<td>Set design</td>
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<tr>
<td>Table settings</td>
<td>Computer programs</td>
<td>Athletic skills</td>
<td>Experiments</td>
</tr>
<tr>
<td>Advertisements</td>
<td>Timelines</td>
<td>Blueprints</td>
<td>Caricatures</td>
</tr>
<tr>
<td>Puppets</td>
<td>Diagrams/charts</td>
<td>Lists</td>
<td>Silk screening</td>
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<td>Calendars</td>
<td>Sketches</td>
<td>Multimedia presentations</td>
<td>Graphic organizer</td>
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<tr>
<td>Musical scores</td>
<td>Graphs</td>
<td>Graphic design</td>
<td>Photography</td>
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<td>Book jackets</td>
<td>Collages</td>
<td>Paintings</td>
<td>Fashion design</td>
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</table>

## Leadership Products

<table>
<thead>
<tr>
<th>Speeches</th>
<th>Mock trails</th>
<th>Open forums</th>
<th>Service learning projects</th>
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<tbody>
<tr>
<td>Plans</td>
<td>Musical performances</td>
<td>Fund raising</td>
<td>Editing a newspaper</td>
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<tr>
<td>School patrols</td>
<td>Elections</td>
<td>Student council/government</td>
<td>Directing a plan</td>
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<tr>
<td>Leading rallies</td>
<td>Debates</td>
<td>Organizing a business</td>
<td>Bulletin board/chat</td>
</tr>
<tr>
<td>Consensus building</td>
<td>Campaigns</td>
<td>Organizing a group</td>
<td>room/discussion group on internet</td>
</tr>
<tr>
<td>Role playing</td>
<td>Protests</td>
<td>Editorials</td>
<td>Club or class webmaster</td>
</tr>
</tbody>
</table>


Encouraging Authentic Products and Services: Super Hint #4

Find advanced level resources in your community and on the web.
Mouse and the Scotch tape dispenser. (Cartoons by Joshua Palmes, a 10-year-old student at Webster Hill School, will be a regular feature of West Hartford News.)

Mouse by Joshua Palmes Thursday, March 7, 1985

1. Wonder what this is?
2. 7
3. ©1985
4. Ah, a new kind of mouse trap.

www.museumofcartoonart.org
The Middle & High School Model
Academies of Inquiry and Talent Development

Fundamental Concepts

✔ Authentic Learning
  • Applying relevant knowledge, thinking skills and interpersonal skills to solving real problems.

✔ Real Life Problems

Structure

✔ Students from across grade levels participate in self-selected academies of inquiry and talent development during the entire time they are in middle or high school.

✔ Time for the AITD is “borrowed” from the regular schedule and advisement periods

Renzulli, Gentry, & Reis, 2019
Middle and High School Organizational Model

Academies of Inquiry and Talent Development (AITD)

The Academy of Literature, Languages, and the Humanities
The Academy of Computer Science and Technology
The Academy of Physics and Life Sciences
The Academy of Fine and Performing Arts
The Academy of Applied Mathematics
The Academy of Social Sciences
The Academy of Sports and Leisure Studies

Renzulli, Gentry, & Reis, 2019
Academies of Inquiry and Talent Development

Students

6\textsuperscript{th} 7\textsuperscript{th} 8\textsuperscript{th}

Faculty

6\textsuperscript{th} 7\textsuperscript{th} 8\textsuperscript{th}

Special Subject Community Resource Persons

The Academy of Applied Mathematics

*Music, Technology, Art, Guidance, etc.

The Academy of Fine and Performing Arts
What are all the different types of writing and other kinds of work that you can find in newspaper and magazine production?

Types of Writing
- Editorials
- Investigative Reporting
- Cartoons/Comics
- Local News
- National News
- Announcements/Obituaries
- International News
- Business

Arts/Culture
- Events
- Fashion
- Travel
- Reviews
- Books
- Movies
- Restaurants
- Sports
- School
- Local
- State
- National

Outlets
- Magazines
  - Literary
  - Fashion
  - News
  - General
  - Scientific
  - Industry
  - Hobby
  - Travel
  - Art
  - Cooking
  - Architecture
  - History

- Newspapers
- Television
- Internet
- Newsletters
- Yearbooks
- Books
- Brochures
- Radio
- Clubs
  - Boy/Girl Scouts
  - 4-H
  - Sports
  - Band/Orchestra

Audiences
- Parents
- Day Care Center
- School
- Senior Center

Business
- Personnel
- Distribution
- Marketing
  - Advertising
  - Subscriptions
- Management
  - Accounting

Production
- Editing
- Layout/Design
- Printing
The Academy of Literature, Languages and the Humanities

<table>
<thead>
<tr>
<th>Potential Areas of Study</th>
<th>Type I Enrichment</th>
<th>Type II Enrichment</th>
<th>Type III Enrichment</th>
<th>Outlets/Products/Audiences for Type III Enrichment</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ Personal Writing</td>
<td>✔ Presentations by</td>
<td>✔ Interviewing techniques</td>
<td>✔ The future language inventors</td>
<td>✔ Family folklore festival</td>
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<tr>
<td>Journals, diaries,</td>
<td>persons in each</td>
<td>✔ Observation</td>
<td>✔ The worldwide language guild</td>
<td>✔ Anthology of student writing</td>
</tr>
<tr>
<td>autobiography,</td>
<td>discipline</td>
<td>✔ Data collection</td>
<td>✔ The “other worlds”</td>
<td>✔ School/community newspaper</td>
</tr>
<tr>
<td>monologue, writer’s</td>
<td>✔ Writer-in-residence</td>
<td>✔ Primary research</td>
<td>✔ Communication research team</td>
<td>✔ Literary magazine</td>
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<tr>
<td>notebook</td>
<td>✔ Speakers whose</td>
<td>skills</td>
<td>✔ The “teen talk” investigators</td>
<td>✔ Writing contests for kids</td>
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<tr>
<td>✔ Imaginative Writing</td>
<td>authors depend on</td>
<td>✔ Analysis</td>
<td>✔ The professional terminology</td>
<td>✔ Poster campaigns</td>
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<td>Fiction, fantasy,</td>
<td>language</td>
<td>✔ Listening skills</td>
<td>collectors</td>
<td>✔ Poetry reading events</td>
</tr>
<tr>
<td>adventure, science,</td>
<td>✔ Communication</td>
<td>✔ How to get</td>
<td>✔ The ancient writings</td>
<td>✔ Storytelling troupe (cross-age)</td>
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<tr>
<td>poetry, short story,</td>
<td>with authors</td>
<td>published</td>
<td>✔ Discoveries</td>
<td>✔ Lexicon of “teen-talk”</td>
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<td>songs, dialogues, plays</td>
<td>through letters,</td>
<td>✔ Writing skills</td>
<td>✔ The script/play writers</td>
<td>✔ The language of professionals</td>
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<td>✔ Drama/Oral</td>
<td>videos, guest</td>
<td>✔ Speaking Skills</td>
<td>group</td>
<td>handbook</td>
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<td>English Storytelling,</td>
<td>presentations</td>
<td>✔ Keeping a writer’s</td>
<td>✔ The journalists team</td>
<td>✔ Feature articles in local</td>
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<td>✔ Writers’</td>
<td>notebook</td>
<td>✔ The reference</td>
<td>newspaper</td>
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<td>chorale readings,</td>
<td>symposium</td>
<td>✔ Brainstorming</td>
<td>preference</td>
<td>✔ Word origins quiz bowl</td>
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<tr>
<td>interviews, conversation</td>
<td>✔ Internet</td>
<td>strategies</td>
<td>✔ Searchers (collecting</td>
<td>✔ Cable TV news broadcast</td>
</tr>
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<td>✔ Popular Forms</td>
<td>communication</td>
<td>✔ How to make</td>
<td>quotable quotes</td>
<td>✔ Public address communiqué</td>
</tr>
<tr>
<td>Posters, propaganda,</td>
<td>with various</td>
<td>recordings</td>
<td>expressly for kids,</td>
<td>✔ Literary fair</td>
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<tr>
<td>reviews, criticism, ads,</td>
<td>regions/dialects</td>
<td>✔ Guidelines on</td>
<td>selected by kids)</td>
<td>✔ “Talking books” production</td>
</tr>
<tr>
<td>satire</td>
<td></td>
<td>how to invite</td>
<td>✔ The rewriters society</td>
<td>✔ Play production</td>
</tr>
<tr>
<td>✔ Media</td>
<td>✔ Exploring ideas</td>
<td>guest speakers/presenters</td>
<td>✔ The diary detectives</td>
<td>✔ Bulletin board display</td>
</tr>
<tr>
<td>Composition TV</td>
<td>✔ Stories told/read</td>
<td>✔ How to make</td>
<td>✔ The story recorders</td>
<td>✔ Book of quotations for kids</td>
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<tr>
<td>scripts, radio</td>
<td>by school personnel,</td>
<td>a speech</td>
<td>✔ The movie critics</td>
<td>✔ A guide to local emporia</td>
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<tr>
<td>programming, tapings,</td>
<td>community leaders,</td>
<td>✔ Decision making</td>
<td>✔ The consumer and school</td>
<td>✔ Adopt a senior citizen pen pal</td>
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<tr>
<td>recordings, commercials,</td>
<td>parents</td>
<td>✔ Defining purpose</td>
<td>resource guide compilers</td>
<td>✔ Story calendars</td>
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<td>storyboard, bulletin</td>
<td></td>
<td>and audience</td>
<td>✔ The advertising team</td>
<td>✔ Portman Olympics</td>
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<tr>
<td>boards</td>
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<td>✔ The rewriters</td>
<td>✔ Portmanteau word</td>
<td>✔ Pop-up books</td>
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<tr>
<td>✔ Media</td>
<td>✔ Listening to</td>
<td>society</td>
<td>inventors</td>
<td></td>
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<tr>
<td>✔ Personal Writing</td>
<td>excellent</td>
<td>✔ The language game</td>
<td>✔ The “great Books” club for kids</td>
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<tr>
<td>✔ Imaginative Writing</td>
<td>recordings of</td>
<td>creators</td>
<td>✔ The folklore</td>
<td></td>
</tr>
<tr>
<td>✔ Drama/Oral</td>
<td>poetry/prose</td>
<td>✔ The language game</td>
<td>collectors</td>
<td></td>
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<tr>
<td>✔ Personal Writing</td>
<td>✔ Discussing books</td>
<td>creators</td>
<td>✔ The folklorists</td>
<td></td>
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<tr>
<td>✔ Imaginative Writing</td>
<td>that all have</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔ Drama/Oral</td>
<td>read</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Outlets/Products/Audiences for Type III Enrichment:
- Family folklore festival
- Anthology of student writing
- School/community newspaper
- Literary magazine
- Writing contests for kids
- Poster campaigns
- Poetry reading events
- Storytelling troupe (cross-age)
- Lexicon of “teen-talk”
- The language of professionals handbook
- Feature articles in local newspaper
- Word origins quiz bowl
- Cable TV news broadcast
- Public address communiqué
- Literary fair
- “Talking books” production
- Play production
- Bulletin board display
- Book of quotations for kids
- A guide to local emporia
- Adopt a senior citizen pen pal
- Story calendars
- Portman Olympics
- Pop-up books
### Academies of Inquiry and Talent Development: The Academy of Social Sciences

<table>
<thead>
<tr>
<th>Potential Areas of Study Experiences</th>
<th>Type I Enrichment</th>
<th>Type II Enrichment</th>
<th>Type III Enrichment</th>
<th>✔ Outlets/Products/Audiences for Type III Enrichment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>History</strong></td>
<td>✔ Presentations by persons in each of the disciplines ✔ Visitation to sites where these people work ✔ Brainstorming sessions about topics that might be interesting to study ✔ Reading biographies ✔ Debate ✔ Panel Discussion ✔ Visitations to historical sites ✔ Brainstorming sessions about “hot topics” in the news</td>
<td>✔ Developing a survey instrument ✔ Conducting an oral history interview ✔ Examination and discussion of interesting documents and products from the discipline ✔ Methods historians use to find and focus a research problem ✔ Socratic method ✔ Primary/secondary sources ✔ Multicultural Sensitivity Training ✔ Interpreting data ✔ Descriptive statistics ✔ Graphs/Carts ✔ Recognizing and detecting bias and stereotypes ✔ Forecasting and predicting</td>
<td>✔ The Oral History Research Team ✔ The Creative Cartographers Guild ✔ The Animal Learning Laboratory ✔ The Local Survey Research Team ✔ Investors, Inc. ✔ The Political Action Society ✔ Shipwreck Explorers Lab ✔ Students for Social Action ✔ The Social Behavioral Lab ✔ Where Your History Book Leaves Off ✔ The Psychology of Dreams ✔ The Native American Heritage Cultural Group ✔ The Hispanic-American Cultural Group ✔ The Asian-American Heritage Group ✔ The African-American Literature Institute ✔ The Women’s History Society ✔ Society in Conflict ✔ The 21st Century Historical Society ✔ The Business Researchers’ Team</td>
<td>✔ Presentations to local or state historical societies ✔ Maps of local historical sites, recreation areas ✔ Articles in school and city newspapers and magazines ✔ CT Geographic Olympiad ✔ Displays at public buildings, shopping malls, senior centers ✔ National Geography Bee ✔ Lobbying Efforts ✔ PAC ✔ History Day ✔ USA Today Stock Market Game ✔ Archaeological Dig ✔ “Mansfield Monopoly” to Chamber of Commerce ✔ Petition to state and local officials ✔ Cultural presentations to Uconn Psychology Department ✔ History text for kids ✔ Web Page ✔ Debate/public panel ✔ Presentation to Chamber of Commerce ✔ Editorial in School or local newspaper</td>
</tr>
<tr>
<td><strong>Geography</strong></td>
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<tr>
<td><strong>Political Science</strong></td>
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<tr>
<td><strong>Sociology</strong></td>
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<tr>
<td><strong>Psychology</strong></td>
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<tr>
<td><strong>Economics</strong></td>
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<tr>
<td><strong>Anthropology</strong></td>
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<tr>
<td><strong>Archaeology</strong></td>
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<tr>
<td>Science/Environmental Education</td>
<td>Social Science</td>
<td>Style &amp; Fitness</td>
<td>Visual Arts</td>
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<td>--------------------------------</td>
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<tr>
<td><strong>JOBS:</strong></td>
<td><strong>JOBS:</strong></td>
<td><strong>JOBS:</strong></td>
<td><strong>JOBS:</strong></td>
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<tr>
<td>Marine Biologist</td>
<td>Archaeologist</td>
<td>Personal Trainer</td>
<td>Painter</td>
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<tr>
<td>Environmental Scientist</td>
<td>Anthropologist</td>
<td>Psychologist</td>
<td>Photographer</td>
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<tr>
<td>Horticulturist</td>
<td>Lawyer</td>
<td>Cosmetologist</td>
<td>Graphic Artist</td>
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<tr>
<td><strong>Methods/Resources:</strong></td>
<td><strong>Methods/Resources:</strong></td>
<td><strong>Methods/Resources:</strong></td>
<td><strong>Methods/Resources:</strong></td>
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<tr>
<td>Ecology</td>
<td>Legal Knowledge</td>
<td>Fitness Training</td>
<td>Technical Skills</td>
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<tr>
<td>Chemistry</td>
<td>History/culture</td>
<td>Sports Medicine</td>
<td>Talent</td>
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<tr>
<td>Life Sciences</td>
<td>Investigative Skills</td>
<td>Human Research</td>
<td>Craft</td>
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<td>Problem Solving</td>
<td>People Person</td>
<td>People Person</td>
<td>Creativity</td>
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<tr>
<td><strong>Products:</strong></td>
<td><strong>Products:</strong></td>
<td><strong>Products:</strong></td>
<td><strong>Products:</strong></td>
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<tr>
<td>Invention/Discovery</td>
<td>Archaeological Digs</td>
<td>Fitness Programs</td>
<td>Paintings</td>
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<td>Agriculture</td>
<td>Discoveries</td>
<td>Publications</td>
<td>Exhibitions</td>
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<td>Research</td>
<td>Trials</td>
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<td>Animation</td>
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<td><strong>Intended Audience:</strong></td>
<td><strong>Intended Audience:</strong></td>
<td><strong>Intended Audience:</strong></td>
<td><strong>Intended Audience:</strong></td>
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<td>Public Awareness</td>
<td>Courtroom Judge</td>
<td>Sports Enthusiasts</td>
<td>Museum visitors</td>
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<tr>
<td>Medical Community</td>
<td>Other Historians</td>
<td>Health Awareness</td>
<td>Television</td>
<td></td>
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<tr>
<td>Other Scientists</td>
<td>Public Awareness</td>
<td>Sports Fans</td>
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<tr>
<td>Business Management</td>
<td>Communications</td>
<td>Engineering Logic &amp; Physics</td>
<td>Performing Arts</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------</td>
<td>-----------------------------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>How to design and administer a business...</td>
<td>How to effectively narrate, convey or persuade...</td>
<td>How to problem solve, construct, or make discoveries...</td>
<td>How to entertain, entice, enliven, and...</td>
<td></td>
</tr>
</tbody>
</table>

**JOBS:**
- CEO (Bill Gates)
- Chef/Caterer
- Web Designer
- Child Care
- Stockbroker

**Methods/Resources:**
- Technology
- Money
- Management
- Human Resources
- Leadership Skills
- Creativity

**Products**
- Web Pages
- Menus
- Food Services
- Successful Businesses
- Inventions

**Intended Audience**

**JOBS:**
- Journalist
- Publisher
- Storyteller
- Broadcaster
- Writer
- Speechmaker

**Methods/Resources:**
- Publications
- Media
- Speech
- Debate
- Technology

**Products**
- Newspapers
- Performances
- Broadcasts
- Television
- Radio

**Intended Audience**

**JOBS:**
- Engineer
- Physicist
- Chess Master
- Mathematician
- Architect

**Methods/Resources:**
- Problem Solving
- Scientific Method
- Technology
- Design
- Mathematics

**Products**
- Architecture
- Chess Tournaments
- Blueprints, Plans
- Math Competitions

**Intended Audience**

**JOBS:**
- Actor
- Dancer
- Musician
- Jazz Band

**Methods/Resources:**
- Talent
- Craft
- Technology
- Music
- Drama

**Products**
- Dance Performances
- Plays/Musicals
- Band Performances
- Competitions

**Intended Audience**
Enrichment Clusters

Opportunity

Resources

Encouragement

-JSR
All activity within the AITD is directed towards the acquisition and application of advanced levels of knowledge and investigative methods within the respective fields of study subsumed under each academy.

The Enrichment Triad Model provides the theory of learning that guides inquiry.
Implementing AITDs: Start-Up

✔ Follow the same steps to implement AITDs as EC, while considering the following additions:

- Provide a general orientation for students and parents.
- Assist teachers in planning as they organize themselves into AITDs around the general areas of knowledge.

Renzulli, Gentry, & Reis, 2019
Implementing AITDs: Teacher Planning

✔ Teacher planning

• Develop a compatible philosophy and working relationship and a
• Plan for team governments
• Develop the first year rich with Type I and Type II experiences, thus encouraging students to become involved in Type III investigations as they become prepared and inspired.
• The teachers should view themselves as facilitators and coordinators of inquiry.
Implementing AITDs: Standards

✔ Maintain high academic standards
  • The teacher/facilitators assumes roles crucial to escalating the content and methods.
  • It is not necessary for facilitators to be thoroughly familiar with the content areas. However, they must be interested in the topic, know how to find resources, be able to organize the academy, and promote and document the use of advanced content and methods.
Implementing AITDs: Schedule

✔ Work together to create a schedule with regular time for AITDs to meet, for example:

- Create a Friday afternoon “assembly schedule” by shortening each class period to create time for an enrichment period.
- Drop one class meeting of each major subject a month to make an enrichment period.
- Eliminate home room and/or advisement one or more days per week to create an enrichment period.
- Turn home room and/or advisement into an extended enrichment period, thus assigning students to home rooms/advisors based on the criteria of academy interests rather than random chance.
- Consider all innovative suggestions that reflect the unique possibilities of the particular school setting.
Summary of Research Findings to date:

1. Successful implementation of EC and AITD in a wide variety of school settings including urban, rural, suburban, low SES and culturally diverse settings.

2. Across different settings programs were developed to fit individual school schedule and needs.

3. Implementation sites have served as model sites for others developing EC and AITD settings.

4. Cross age grouping by interest works well.

5. Community members demonstrated effective commitment and involvement in the program.

Renzulli, Gentry, & Reis, 2019
Summary of Research Findings to date:

6. EC & AITD provided total schoolwide enrichment to all students.

7. Setting aside time for EC & AITD was both possible and effective to ensure high quality enrichment experiences for all students.

8. Special needs students and specialists within the schools were involved in the programs.

9. After involvement in the EC program student interests strengthened.

10. Attendance was higher for both students and teachers on EC days.
Summary of Research
Findings to date:

11. 90% of students completed group or individual products and services. There was no difference in product quality based on gender, program placement, achievement levels, or ethnicity, reinforcing the power of having students of like interest work together.

12. Increases in proficiency on state mastery exams were recorded after three program years and in all subject areas.

13. Parent attitudes concerning enrichment opportunities improved in two treatment sites.

14. The majority of teachers enjoyed facilitating clusters.
Summary of Research Findings to date:

15. Though initially 60% of teachers chose to facilitate clusters, after 2 years more than 90% of teachers chose to facilitate clusters.

16. Evaluation revealed the majority of teachers wanted more time and wanted to remain involved by facilitating other clusters in future programs.

17. Cluster facilitation strategies were implemented by teachers in their general classrooms.

18. Both content and methods were affected by enrichment cluster programs.

19. Enrichment clusters acted as professional development for staff because of the transfer back to the general education program.
<table>
<thead>
<tr>
<th>Strategy</th>
<th>Percentage of Clusters Using Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction of new concepts and advanced content</td>
<td>95</td>
</tr>
<tr>
<td>2. Development of product or service</td>
<td>81</td>
</tr>
<tr>
<td>3. Teaching specific, authentic methodologies</td>
<td>81</td>
</tr>
<tr>
<td>4. Use of advanced vocabulary</td>
<td>65</td>
</tr>
<tr>
<td>5. Use of authentic &quot;tools&quot; related to the topic</td>
<td>56</td>
</tr>
<tr>
<td>6. Use of advanced resources and reference material</td>
<td>53</td>
</tr>
<tr>
<td>7. Use of advanced thinking and problem-solving strategies</td>
<td>44</td>
</tr>
<tr>
<td>8. Integration of creative thinking</td>
<td>43</td>
</tr>
<tr>
<td>9. Integration of historical perspectives</td>
<td>24</td>
</tr>
<tr>
<td>10. Development of presentations or performances</td>
<td>13</td>
</tr>
<tr>
<td>11. No advanced content used</td>
<td>5</td>
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</table>
### Table 2. Enrichment Cluster Content and Methods Used by Teachers in their Classrooms (N=121 teachers)

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage of Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td></td>
</tr>
<tr>
<td>Integration of cluster content into classroom curriculum and lessons</td>
<td>43</td>
</tr>
<tr>
<td>Use of ideas and community resources gained from clusters</td>
<td>19</td>
</tr>
<tr>
<td>Development of centers related to enrichment cluster content</td>
<td>14</td>
</tr>
<tr>
<td><strong>Methods</strong></td>
<td></td>
</tr>
<tr>
<td>Responding to student interests</td>
<td>43</td>
</tr>
<tr>
<td>Encouraging student directed learning and choices</td>
<td>24</td>
</tr>
<tr>
<td>Encouraging students to complete products and independent work</td>
<td>29</td>
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<tr>
<td>Using hands-on activities</td>
<td>19</td>
</tr>
<tr>
<td>Using interest groups in the classroom</td>
<td>14</td>
</tr>
<tr>
<td>Increasing concentration on thinking skills</td>
<td>14</td>
</tr>
</tbody>
</table>
References


Enrichment Clusters

Task commitment is the triumph of actions over intentions!

--JSR