

The Schoolwide Enrichment Model (SEM) Infusion Based Approach to Curriculum Enrichment (Selection, Injection, and Extension)

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The SEM uses an *infusion based* approach to adding enrichment activities to prescribed curriculum. We do not criticize nor recommend “throwing out” basic curriculum, current practices, programs, or projects if they are currently producing positive results in *both* achievement and joyful learning. Rather, the SEM strikes a balance between traditional approaches to learning and approaches that promote thinking skills, hands-on learning, and creative productivity on the parts of all students. Our goals are to minimize boredom and “school turn-offs” and to improve achievement and creative productivity by infusing Enjoyment, Engagement, and Enthusiasm for Learning (The 3 Es) into the culture and atmosphere of a school, the tool bags of teachers and administrators, and the mindsets of students (Renzulli & Waicunas, 2018).

An Infusion Based Approach simply means that teachers will (1) examine opportunities to review and *select* highly engaging enrichment-based activities related to particular topics, (2) *inject* them into the curriculum to make the topics more interesting, and (3) provide support and encouragement for individuals and small groups who would like to extend their pursuit of the the enrichment activities. A few examples will show how the Infusion Based approach works.

An elementary teacher was required to have her students memorize all the states and capitals of U. S. cities. To make the assignment more interesting she gave them an opportunity to select a project that had something to do with this topic and that was related to a personal interest. One group of students interested in music decided to develop a rap song for their state’s official anthem. Another group interested in history decided to develop historic site maps, posters, and travel brochures for a state they had visited or would like to visit some day. A third group used state shaped cookie cutters to make an edible map of the U. S. using chocolate bits to designate the locations of each state’s capital. This group was so enthusiastic that they extended their work by visiting other classrooms, sharing their cookies with other classes, and providing brief historical facts about some of the states.

A middle grade math teacher had her students develop fictional fantasy baseball cards and analyze the players’ statistics to draft and trade players while building their own teams. They drew caricatures of their players and a “Player Wheel” with geometric representations of player’s strengths and weaknesses was created and used to play against other students’ teams. A regular season schedule was set for the class, ending with a World Series game to decide the classroom champion.

A high school AP Physics teacher assigned a year-long project that encouraged students to use all of the concepts they cover in his course for addressing a practical problem. A recent project was to apply everything they learned in Physics to launching a video camera carried by weather

balloons high above the Earth's surface and recording the journey there and back. At the end of each unit of study the teacher asked students how the principles and concepts they studied in the unit applied to their project. This is how learning is made relevant and meaningful.

A middle school social studies teacher covering Ancient Egypt used our Renzulli Learning System data base to find a site at which students could conduct a virtual dissection and preservation of their own mummy. Tools for removing organs, labeling them, placing them in jars and gluing, wrapping and preserving their mummy allowed them to have a hands-on experience that made this topic more meaningful. Material in hypertext familiarized the students with Egyptian language and culture. The excitement of this activity created interest that had far reaching effects on interest and motivation that extended beyond simply covering the material in a textbook.

We now have the tools to easily infuse engaging material into the curriculum because of changes taking place in technology that have given us the potential to make formal learning a different process than it was a decade or two ago. Today's young people are digital learners and emerging masters of interactive media technology. Traditional ways of learning, even under the best of circumstances, cannot compete with students who find texting under their desks more engaging than listening to their teachers and professors or memorizing factual material for a forthcoming test.

Another development in technology that will aid infusion is the almost unlimited amount of information that is now available through the Internet. Thousands of free course-related materials are easily assessable through organizations such as the Kahn Academy, which has produced more than 4,000 videos on topics across all grade levels and several curricular areas. The Massive Open Online Courses sponsored by some of the best-known universities in the country, including MIT's OpenCourseWare program and Coursera, have produced thousands of courses that can be widely accessed without cost.

Changing the learning process can now become a reality because of the almost unlimited access to the knowledge sources mentioned above; but teachers can also become creative contributors to the resource stockpile and the producers of their own televised lectures, course related material, and media events. Free or inexpensive software now allows teachers to prepare and upload their own lectures and assignments for student use anytime and anywhere through the application of easy-to-use screen casting software (e.g., Camtasia Studio 8, Screenflow Software). A program called Juno (<https://www.gofrontrow.com/products/juno-systems/>) enables easy recording of high-quality audio/video clips without adding any extra work to a teacher's day. The program automatically adds titles, prepares files for uploading, and they can be accessed by computers, tablets, smart phones, or interactive white boards. And, as mentioned above, content recorded by others is readily available in all subject areas. These tools enable teachers to easily turn their lectures and related lesson planning material into audio and video podcasts and printed course and video materials that can be easily uploaded for student access. We can capitalize on students' fascination and skills with technology and the availability of vast amounts of on-line material by giving teachers the license and the skills to infuse creativity and thinking skills activities into standards driven curriculum.

While it is not practical to use infusion for every topic or course, the value of this approach is to make learning more engaging and to create an enthusiasm for learning that seldom results from merely covering the material in traditional ways. The guidelines for infusion are easy to follow:

1. Select an activity that does not always have a single, predetermined correct answer,
2. Find things that students do rather than sit and listen to,
3. Give students choices that they will have fun carrying out,
4. Select activities that have various levels of challenge to which interested students can escalate.

Finding activities for infusion is now easier than ever. Internet-based search engines such as the Renzulli Learning System which will be described in a later chapter allow teachers to enter topics, subtopics, and sub-subtopics by subject area, grade level, and difficulty level. Literally thousands of high engagement activities can be found with this new technology and even general search engines can direct teachers to an almost endless array of exciting enrichment activities.

Final Thought: If both you and your students are not having fun with an infusion activity, you are doing it wrong!

Renzulli, J. S., & Waicunas, N. (2018). Using an infusion based approach to enrich prescribed and test-driven curricular practices. *International Journal for Talent Development and Creativity*, 6(1), 103–112. <https://files.eric.ed.gov/fulltext/EJ1296876.pdf>