

香港資優教育學院
The Hong Kong Academy for Gifted Education

Information Sheet

CURRICULUM COMPACTING

Curriculum compacting, developed by Prof. Joe Renzulli and Linda Smith in 1978, is a differentiation strategy that can be extremely beneficial to many gifted students. *“Curriculum compacting is a system designed to adapt the regular curriculum to meet the needs of gifted students by eliminating work that has been previously mastered and streamline it at a pace commensurate with the students’ abilities”*. (Reis & Westberg, 1994) It is a process by which students are pre-assessed to determine what parts of the curriculum they have already mastered. When those areas of knowledge and skills are identified, these students are not required to complete the work. Instead, they work on alternate, clearly defined activities.

The Rationale for Curriculum Compacting

Some of the reasons frequently given to justify curriculum compacting are:

- Textbooks have been “dumbed down” to cater for the “average” student
- Many students, particularly those who are gifted, experience repetition of content each year and know much of the regular curriculum content before they meet it in the classrooms
- The needs of high ability students are often not met through regular teaching in everyday classrooms
- The pace of learning and practice time can be modified
- Compacting enables differentiation to occur and provides educational accountability for all students

Curriculum compacting is a particularly important strategy for gifted students because they often come to school already knowing much of the material to be covered in class. If these students are not challenged with new or different content, they waste time in school, do not learn important study skills, and do not grow as learners.

When Compacting may be Necessary

There are certain reactions from students to their regular learning environment that indicate when compacting may be an appropriate strategy:

- Consistently finishes tasks quickly
- Finishes reading assignments first
- Appears bored during lesson time
- Consistently daydreams
- Creates own puzzles, games, or diversions in class
- Brings in outside reading material and resources
- Has consistently high performance in one or more academic areas
- Asks questions that indicate advanced familiarity with material
- Uses vocabulary and verbal expression in advance of years
- Expresses interest in pursuing alternative or advanced topics

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How Does Curriculum Compacting Work?

Most practitioners of compacting agree that there are a number of common steps to making it work. These are:

1. Identify the content, skill areas, standards, or benchmarks students have mastered. Compacting works particularly well in subjects or topics that are easily pre-tested such as math, spelling, grammar, vocabulary, and map skills. Questions in these subjects generally require one right answer. It is easy, therefore, to determine who knows the information and who does not.
2. In order to use curriculum compacting successfully, it is important to learn exactly what students know and what they need to learn. **Pre-assessment** determines knowledge mastery. Often a pre-assessment is a pretest, but it can also be a classroom observation, a short discussion with the student, a checklist of what the student knows, or even a brainstorming session.
3. **Identify students** who may have mastered the objectives, or have the potential to master them at a faster than normal pace, or pretest all students in the classroom. Prior to the pre-assessment, the teacher determines the requirement for mastery. For example, mastery might be 90% or higher on a pretest or no more than one mistake in a writing sample. In a discussion, the teacher might use his or her professional judgment to decide if the student has mastered a certain topic.
4. After mastery is determined and documented, the next step is to **choose alternate activities**. Many teachers are concerned that they do not have appropriate alternate activities for high ability students. However, there are a multitude of resources. The teacher's editions of many textbooks suggest activities for advanced learners. Supplementary books that focus on activities to develop higher level thinking skills are excellent sources for alternate activities. Independent study in an area of interest is another possibility. Finally, the students themselves often have ideas of what they would like to do, how they would like to do it, and what product will result and represent the learning.
5. Do the alternate activities need to be in the same subject in which the student has compacted out? This is the teacher's decision. It may be that a maths teacher wants students to work only on maths compacting activities. Another teacher may decide that an activity in any subject area is appropriate. Either approach is acceptable. An essential factor to remember is that compacting activities should never be drill and practice worksheets covering skills and content the student already knows.
6. **Keep records of the process** and instructional options available to students whose curriculum has been compacted for reporting to parents and forward these records to next year's teachers.

Curriculum Compactor

Curriculum Compactors are forms that have been developed to help with the documentation of this method of providing enrichment. They should be kept in a student's academic file and updated as needed. They have three columns. The first one, titled "Areas to be considered for compacting" should include information on the learning objectives and student proficiency in these objectives. The second column, "Procedures for compacting basic material" describes specifically which activities are used to document proficiency, such as which pretests and what the student scored on each part of it. Attaching the pretest to the compactor might be a good method of documentation as well. The third column, "Acceleration and/or Enrichment Activities" is to describe the replacement activities the student will be engaged in during the time saved by the compacting process. The

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activities should focus on student interests, abilities and preferences. This is a potential time for students to work on Type IIIs of Renzulli's Schoolwide Enrichment Model.

The Compactor

Curriculum Areas to be Considered for Compacting	Procedures for Compacting Basic Material	Acceleration and or Enrichment
<i>Name it.</i>	<i>Prove it.</i>	<i>Change it.</i>
<i>What material needs to be covered?</i>	<i>Exactly what material is to be excluded?</i>	<i>What enrichment and/or acceleration activities will be included?</i>
<i>What evidence shows a need for compacting?</i>	<i>How will you demonstrate mastery?</i>	<i>Independent study Acceleration Mini-courses Mentorships</i>
		<i>Small Group Investigations</i>

Some Basics of Compacting

Most teachers and parents like the strategy of curriculum compacting, but they are often unaware of what exactly occurs when this method is used. Below are practical ideas and suggestions for implementation.

- The teacher meets with compacting students to decide with them on which alternate activity or activities they will work.
- Some type of a time line is established, including when the students will meet with the teacher again and when the alternate activity is due. Compacting students can work independently or together, but it is important that they touch base frequently with their teacher.
- The score that determines mastery is also the score that goes in the grade book. Students may receive extra points, if necessary, for compacting activities, but they should not be penalized with a lower grade if they work on a more challenging activity and do not get a high score. Gifted students are sometimes reluctant to work on alternate activities because they think a possible lower score will negatively affect their grades. Steps must be taken to ensure that does not happen.
- Sometimes compacting students from several classrooms are grouped together for an alternate activity and work with one of the regular teachers while the rest of the students are working with other teachers at the same level. This functions well if all teachers at a particular level are targeting the same skills and content at the same time.
- The most important rule for a compacting student is: "The one choice you never have is the choice to do nothing!" This is because learning time is so valuable. Therefore, it is important that it never be wasted.
- Each student should be responsible for keeping his/her own compactor folder with the work in it. This is a good way for disorganized gifted students to learn skills in organization, and it gives them practice in taking responsibility for their own work and their own learning.

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- Parents need to discuss and show interest in their child's compactor activities. However, parents should not pressure their child to compact out of the grade-level work every time. Even gifted students have some academic weaknesses. Most gifted children compact out some of the time and usually in a specific subject. Very few compact out all of the time or in every subject.

What Does the Research Evidence Say?

Dr. Karen Rogers (2002) cites current studies that found 75-85% of average and above average elementary school students can pass subject pretests with 92-93% accuracy. The United States Department of Education's National Excellence Report (1993) found that gifted and talented elementary school students knew 35-50% of the entire curriculum in the five major subject areas at the very beginning of the school year. Renzulli and Reis (1992) directed a comprehensive national study that found elementary teachers could eliminate 40-50% of the regular curriculum for the top 10-15% of students with no negative effects on their achievement. Based on these studies, curriculum compacting is a viable strategy for gifted students.

Rogers (2002), however, cautions against too much compacting. When students compact in all academic areas, they can become stressed due to the fast pace of their learning. We need to remember that our gifted children, like all children, need time to reflect, think, relax their brains, and sometimes slow their pace. We want our gifted children to make significant academic gains. However, they must balance their social and emotional needs with their academic and intellectual needs.

Resources

In Australia, Hawker Brownlow Education is the best resource for a wide range of educational materials. Visit their website at www.hbe.com.au.

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