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## **Curriculum Compacting: A Research-Based Method of Providing Differentiation, Enrichment, and Acceleration for High-Potential, High Ability, and Academically Talented Students**

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**The major purpose of this guide is to help teachers learn how to compact, streamline, and enhance their grade-level curriculum to eliminate repetition of previously mastered material, challenge academically talented and above-average students, and create a differentiated, enriched, and accelerated learning environment for students who have already gained mastery of the regular curriculum, or who can, if given the opportunity, master the regular curriculum at a much faster and deeper pace.**

### **What are the Academic Needs of Talented Students in School?**

Talented students need time to think, reflect on, understand, and experience challenging content. They need to learn to expend effort and employ study skills to enable them to achieve at increasingly higher levels than they previously believed possible. These types of opportunities should be made available to all students, especially those who are academically talented, but curriculum compacting (at least to us) *must* be implemented for high potential and gifted learners as a very minimum level of service in order to provide them with academic challenge in school. Indeed, we would argue that good instruction for talented and high potential learners can and should begin with the compacting process.

When high potential and gifted learners encounter true academic challenge for the first time, they may experience fear and anxiety and may begin to make false assumptions. Many who have excelled in school and earned top grades without any real effort come to mistakenly believe that being smart means that they do not have to work very hard. Gifted and high potential learners often earn top grades without expending effort in school. Many of these students fail to encounter challenge and never learn how it feels to deal with content that is initially difficult for them. The first time high potential students are exposed to work that is personally challenging, they may experience a sense of panic and draw the inaccurate conclusion that they are not really as smart as they had previously been told or believed. Some students may incorrectly assume that their parents and teachers were wrong—that they are not really smart or gifted; because for them, being identified as gifted really means that they should be able to excel in school without investing a good deal of time or effort.

### **What is Curriculum Compacting and Why Should Teachers Compact Curriculum?**

- **Curriculum Compacting offers high potential and talented students instruction that identifies and eliminates curriculum that students already know so that they won't**

**have to wait for other students to learn the content they have already mastered.** Our research has shown us, consistently, that most advanced learners are regularly assigned work that they have already mastered. They have to wait for peers to catch up rather than learning something new. leading to boredom that can prevented if students have their content knowledge assessed before they start any new work.

- **Curriculum Compacting stops students from being assigned more of the same work.** Those teacher words: “Glad that you did so well on that math pretest—here are 80 more advanced problems” is the fastest way to kill the desire and motivation to demonstrate competency and show teachers what you know well. When teachers compact curriculum well. they help students identify work that is interesting, challenging and provides choices about what students can do with the time saved from doing work that they have already mastered.
- **Curriculum Compacting enables students to have opportunities for independence and choice in their learning but also gives them time to learn from their teachers and interact with other students, when possible, at a similar level of learning potential or achievement.** These students need to be challenged and deserve enriching and interesting work. not doing more of the same or simply being assigned more challenging work in areas not of interest to the student.
- **Curriculum Compacting enables students to pursue their interests and become independent learners, avoiding underachievement and maintaining high achievement.** Our research has found that opportunities for students to become immersed in enrichment learning make a difference in their education and subsequent lives and can help to avoid underachievement. For example, our colleagues and we have studied students who were underachieving in school who were able to work with mentors who supported their completion of a self-selected Type III independent study that helped to reverse their underachievement.
- **Compacting helps teachers address the very broad range of achievement in their classrooms.** In one of our recent studies, Sally and colleagues (Firmender, Reis, & Sweeny, 2013) examined the range of reading fluency and comprehension scores of over 1000 students in 5 diverse elementary schools, including a gifted and talented magnet school. We found an enormous range in reading comprehension across all schools. For example, the reading level range was 9.2 grade levels in grade 3, 11.3 in grade 4, and 11.6 in grade 5. These wide ranges of reading achievement levels across all students suggest that the need for teachers to compact content and instruction is pressing—indeed, it is absolutely necessary if we are to enable all students to make continuous progress in their learning.
- **Compacting works best with some form of grouping but it is absolutely necessary if we are to challenge high potential and talented students who are educated in heterogeneous groups of students.** Compacting works best when there is an intentional placement of a group of high achieving students in an otherwise heterogeneous classroom with a teacher who has both the skills and willingness to provide appropriate challenges for these students. Cluster grouping is a popular and often recommended strategy for meeting the needs of high achieving students in the regular classroom, when compacting is implemented with these students who have been clustered together.
- **Compacting can be embedded into many other types of programs and services for gifted and talented students.** Several strategies exist for teachers to combine

differentiation strategies. Suggestions for how to do this effectively are made throughout this guide, but compacting can be implemented in most enrichment and acceleration programs. In fact, compacting is one of the research proven acceleration strategies included in the well-known book on Acceleration, *A Nation at Risk*.

### **What Is Compacting and How Do Teachers Implement it?**

Curriculum compacting is a common-sense strategy, based on the premise that all students deserve the right to make continuous progress in learning in school. Students deserve the right to learn new content, and be exposed to big ideas and concepts that extend their thinking. Our goal is to have all of our students continually increase their skills and knowledge; we believe that students who enter third grade reading at a sixth-grade level deserve the opportunity to enter fourth grade reading at least at a seventh-grade level. But, this only happens when teachers are innovative, flexible, reflective, and when they commit to the notion of instruction that responds to students' needs and importance continuous progress in learning for all students.

### **Compacting and the Schoolwide Enrichment Model**

Compacting is one of the major components of the Schoolwide Enrichment Model (SEM), our widely implemented enrichment program used with academically gifted and talented students and for all students in schools using a theme related to talent development, enrichment, or creativity. The SEM is implemented in thousands of school districts across the country and the world. In the SEM, enriched learning experiences and higher learning standards are provided for all children through: developing talents in all children, providing a broad range of advanced-level, in-depth enrichment experiences for high potential and academically talented students, and follow-up exploratory and more intense learning for all students based on their developing interests. The SEM emphasizes engagement and the use of enjoyable and challenging learning experiences that are constructed around students' interests, learning styles, and expression/product styles. Compacting is one of the core components of the SEM.

### **Curriculum Compacting: Definition and Steps for Implementation**

Curriculum compacting streamlines and eliminates the regular grade-level curriculum for high potential students to find time for more challenging, engaging, and interesting work. The procedure involves

- defining the goals and learning outcomes of a particular content areas, or unit of instruction
- determining and documenting the students who have already mastered most or all of a specified set of learning outcomes
- providing replacement strategies for material already mastered through the use of instructional options that enable a more challenging, engaging interesting, and productive use of the student's time.

Most teachers who use compacting learn to streamline or "compact" curriculum through a practical, step-by-step approach to the skills required to modify curriculum, and the techniques for pretesting students and preparing enrichment and/or acceleration options based on individual

areas of interest. Curriculum compacting can be implemented with individuals and groups of students with above-average ability in any academic, artistic, or even vocational area.

## The Compactor Form

The curriculum compacting process is easily introduced by the use of the form 'The Compactor', as presented below:

# INDIVIDUAL EDUCATIONAL PROGRAMMING GUIDE The Compactor

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NAME _____ Alison	AGE 6	TEACHER(S) _____	Individual Conference Dates And Persons Participating in Planning Of IEP _____
SCHOOL _____	GRADE 1	PARENT(S) _____	
<p><b>CURRICULUM AREAS TO BE CONSIDERED FOR COMPACTING</b> Provide a brief description of basic material to be covered during this marking period and the assessment information or evidence that suggests the need for compacting.</p> <p>Holt Basic Reading Series - Levels 3-6, as determined by Holt level tests. Alison has mastered most of the comprehension and phonetic objectives introduced in these levels.</p> <p>Individualized Spelling Program by Economy - Alison has mastered Levels 1-4. She will be placed in Level 5.</p> <p>Math - As determined by the first grade Math placement test, Alison has mastered most of this curriculum. She will begin her Math program in the 2nd grade classroom.</p>	<p><b>PROCEDURES FOR COMPACTING BASIC MATERIAL</b> Describe activities that will be used to guarantee proficiency in basic curricular areas.</p> <p>Capital letters and periods. - Teacher made worksheets Continental Press. Alison will participate in classroom activities dealing with these skills. Check proficiency by Holt level 6 test. Capital letters and periods - pg 27.</p> <p>Contractions - Level 7 Teacher's Manual pages 81, 119, 175, 216, 217, and 255-256. Check proficiency by Holt Level 7 test (Contractions).</p> <p>Change y to i and add es/and other plural forms: Level 9 Teacher's Manual pages 202 and 293-294. Level 8 Teacher's Manual pages 222-223, 246, 311. Check proficiency by Holt Level 9 test and reading consultant-made test for these plural forms not covered in the Level 9 test.</p> <p>Compound Words - Level 9 Teacher's Manual pages 77, 267. Check for proficiency - Level 9 test page 9 (compound words).</p> <p>Pronouns - Level 9 Teacher's Manual page 325. Check for proficiency - Level 9 test (language skills) page 9.</p>	<p><b>ACCELERATION AND/OR ENRICHMENT ACTIVITIES</b> Describe activities that will be used to provide advanced level learning experiences in each area of the regular curriculum.</p> <p>Classroom Alison's classroom teacher will use the language experience approach. Various reading and writing programs on the Apple computer will be used with Alison. Scholastic Individual Reading Kit will provide Alison with the opportunity to read independently and use instructional games and records. Alison will be provided time to work in her classroom on a Type III activity (independent study).</p> <p>Talcott Mt. Science Center Alison will participate in Science programs presented in school - Crystals, weather, forest life, aerial photos and mountains, snow, planets and constellations.</p> <p>TAC Resource Room Critical thinking skills, creative problem solving, creative problem solving, Type III independent study.</p>	
<input type="checkbox"/> Check here if additional information is recorded on the reverse side.			

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## Who Needs to Have Their Curriculum Compacted?

### Student Behaviors Suggesting that Compacting is Necessary

- Consistently finish tasks quickly
- Complete reading assignments first in the class
- Appear bored during instruction time
- Bring in outside reading material to use in class
- Create diversions in class and may misbehave or ask for attention
- Ask for simple enrichment—activities, on-line work, puzzles, kits, etc.
- Consistently daydreams or appears bored in class
- Has consistently high performance in one or more academic areas
- Achieves high tests scores consistently
- Asks questions that indicate advanced familiarity with material
- Is sought after by other students for assistance
- Uses vocabulary and verbal expression advance of grade level
- Expresses interest in pursuing alternate or advanced topics.

### Document it: Completing the First Column of the Compactor

The first column of the Compactor documents the first three steps in the compacting process; naming the content areas being considered for compacting and citing information that indicates that the student is a good candidate for compacting, such as the examples used below:

- John’s achievement test scores in math (99th percentile) indicate curriculum compacting is necessary.
- Tamara’s grades in English have been “A”s for the last four years.
- Liza’s instructional reading level is four years above her grade placement.

In each of these cases the teacher has provided evidence of above-average ability in the subject area. Information from tests scores, classroom behaviors, and notes on performance assessment can also be used to document curriculum strength.

The second part in this column can provide information about the objective(s) being considered for compacting such as the following examples:

- John will be pretested on the math computation objectives in the fourth grade math program
- Writing objectives will be considered for compacting for Danni who is writing several years above grade level.
- It is likely that Liza can be compacted from vocabulary and comprehension objectives for this and the next grade level.

The teacher does not need to identify *all* possible objectives or curricular areas to be considered for compacting during the first week of the school year. It is more likely that the process will start slowly with one student or in one content area. As the teacher and students become more proficient with the process, additional objectives for compacting will be identified and additional notes can be added in the remaining space in column one of the Compactor.

## **Completing the Second Column of the Compactor**

Information about *how* the specific objectives will be achieved should be documented in the second column of the Compactor. For example, if a student has shown mastery of seven of the ten objectives in a unit, the teacher must decide how to provide instruction in the remaining three objectives. The teacher may require that the student participate with the rest of the class, learn the objective through an individual tutorial, or become responsible for independent mastery of the unmet objectives.

The second column of the Compactor Form should also document how much time has been saved for enrichment or acceleration activities and just what is being eliminated from the classroom curriculum as a result of student mastery of tested objectives. If, for example, spelling pretests indicate that a student has mastery of six of the next eight units in the spelling curriculum, the writer might indicate the dates, the times of day or the days of the week when the six units are to be taught. The second column should include clarification of how much instructional time is being saved or which activities are being eliminated.

Column two of the Compactor can be used to document the objectives and pretest results. First, the teacher should indicate which objectives were pretested for the student. The use of codes, numbered objectives or references to objectives are also appropriate. The parent or teacher who sees the Compactor should be able to understand the extent of the pretest and the specific skills or content objectives on which it is based. The teacher should record this information as succinctly as possible, including using scanned copies of the assessments tests or objectives on an electronic compactor form. In documenting student performance on the pretest, it is important to be precise about which objectives need to be mastered and only by documenting the scores of each objective can objectives be identified which should be compacted.

## **Completing the Third Column of the Compactor**

The third column, "Acceleration and/or Enrichment Activities," includes documentation about how time is to be spent that has been provided by the compacting process, and many different enrichment options are included later in the chapter. This column can also be enhanced and added to as more options emerge based on students interests and increasing knowledge of their students' strengths.

## **Alternatives to the Compactor Form**

Some teachers might find that using the Compactor is redundant in light of the other record-keeping devices already being used. The decision to use or amend the Compactor is one that can and should be made by individual teachers or a committee of teachers within the building or school district. The use of the form enables the teacher to document all instances of change from the regular curriculum. If you work in a state that has a mandate for gifted education, the Compactor might also be used to reduce some of the paperwork required for students who are receiving special, state-funded services. In many of these cases, gifted education is classified under the special education program and the due process procedures that are required, the use of the Compactor has often been used as a substitute for the Individual Education Plan (IEP). Since

the Compactor documents all instances of curricular modification, it can easily be used to record the assessment information that led to compacting. It will also provide information about the enrichment or acceleration options that were offered to students who took advantage of the compacting procedure.

Some teachers prefer to keep track of students' pretest scores using a matrix in which every student is listed, as are skills and content areas that must be mastered. Teachers might use checklists or matrices that are provided with their district curriculum maps or adapt existing forms for their own purposes. Others prefer to keep records for each student in the class. The latter approach can also be combined with an individual student record (for the student's file) and a contract that describes required assignments and optional activities.

### **The Importance of Documentation**

Whether you choose to use the Compactor, to modify it, or to use your own record-keeping devices, we strongly recommend documentation occur. Documentation during parent-teacher conferences or to use with teachers in subsequent grade levels, for example, can enable teachers to be supported in the continued use of compacting. Students who move and transfer to a new school system should also have access to the documentation of compacting completed, for without this information the student is likely to repeat inappropriate grade-level material. The use of the Compactor will enable teachers in the new school to identify the student's strengths without the need to repeat extensive testing procedures. Teachers can begin to compare these strengths and compacted skill objectives with the curriculum at the new school.

Documentation is also critical for teachers who are trying to use the compacting process in a less than supportive situation. Consider a primary grade teacher who has been attempting to compact curriculum for her precocious readers during the last two years. Her efforts have been thwarted several times by the district's reading supervisor who believes that repetition breeds mastery. When the teacher asked for pre-assessment strategies that were associated with the district's reading series, she was told by the supervisor that the pretests were not to be used and that the post tests were only to be given to the class as a large group after finishing each of the two required readers for their grade level. Teachers in the district were told to teach the reading series to the whole group and that no student should be compacted or allowed to be using an out-of-level reading. The situation was extremely frustration, and finally, the teacher located a norm-referenced, diagnostic reading test that gave her the ammunition she needed to confront the supervisor about the policy of large-group instruction in the district's reading program. Armed with the objectives for the grade-level reading program and a set of tests scores from the diagnostic reading test, the teacher called a conference with the reading supervisor and her principal. As she expected, when she showed the supervisor the actual test scores for the able readers in her classroom and suggested that these students were wasting their time by participating in needless instruction and practice, the reading director backed down. Although the teacher has still not been allowed to use out-of-level basal readers, she has been given permission to substitute trade books for the precocious readers who have demonstrated skill mastery.

This teacher proved her case by using documentation to substantiate her students' content strength. This situation is not rare. Parents, fellow teachers, and administrators may question a

decision to modify the standard curriculum. Through attempts to define, pre-assess and document learning objectives, teachers can better explain why some students can be excused from selected instruction or practice. In the end, this documentation may even convince others to compact curriculum as well.

### **Summary: Why Compact Curriculum?**

Curriculum compacting enables both curriculum and instruction to be paced in response to student's individual needs. Most academically talented students learn more quickly than others of their age and require a more accelerated pace of instruction than their peers. Sometimes, these learners need a chance to think more deeply about one aspect of a lesson than others, as they may. at certain times and under certain circumstances, become passionately engaged with a topic or experience burning desires to thoroughly understand some aspect of the curriculum.

Curriculum compacting also helps teachers escalate and increase the challenge for students who absolutely need to engage with some level of difficulty. This higher challenge is critical for this group of students. for the greatest contributor to the underachievement of gifted and talented students is the lack of challenge that they encounter in elementary and middle school. High potential and academically talented learners should grapple with curriculum, instruction and the completion of products that are complex, challenging, and in-depth. Some students will need support and direction to tackle more difficult work, while other academically talented students may actually need less direction from their teachers, depending on the level of tasks and type of work. The learners who may be able to work more independently are often those with intense interests or the capacity to identify interests that they may want to pursue.

### **References**

Firmender, J. M., Reis S. M., & Sweeny. S. M. (2012). Reading comprehension and fluency levels ranges across diverse classrooms: The need for differentiated reading instruction and content. *Gifted Child Quarterly*, 57, 3–14.