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Appendix J

Characteristics of Cognitively Engaging Instruction Tucson Unified School District January 2014

Note: The term, “Cognitively engaging instruction” is intended to describe classrooms where the emphasis is on meaningful, challenging student learning that makes kids think, involves them in their own academic progress, and creates a climate that encourages risk-taking, thinking outside the box, and real-life scenarios.

Cognitively engaging instruction is focused on the most important role schools play: promoting student learning. It is built on the foundation of rigor. Rigor is not determined by the quantity of work a student completes; rather, rigor refers to the *nature* of the work a student performs in completing an assignment or project; i.e., the amount of thinking that is involved, the nature of that thinking, and how it is manifested in students’ work.

The following characteristics are extrapolated from research and have been shown to be effective in improving achievement among all student groups: at-risk students, gifted students, learning disabled students, and ELL students. These characteristics, when coupled with challenging academic content, describe courses that would be considered “advanced” or “enrichment”-type courses.

1. **Teaching approaches and student learning activities reflect a constructivist philosophy regarding student learning. Such approaches are typified by the following characteristics:**
 - The focus of all learning activities is to keep them meaningful for the student. The student understands why he/she is doing the activity, the goal or purpose behind it, and how he/she will ultimately benefit from completing it. Activities are student-centered, not teacher-centered.
 - Learning focuses more on larger, connected or related concepts rather than on discrete, specific facts.
 - The student can relate their learning to real-life scenarios; the learning is seen as relevant to themselves, personally, or to their social context.
 - Every student is an active participant in his/her learning. Students are involved in setting learning goals and in monitoring their own progress in mastering objectives and meeting their goals.
 - Learning activities are intrinsically interesting. They are modified to suit student preferences, learning styles, and academic needs. Students have a certain degree of autonomy, or choice, in their learning activities and the product they are responsible for.
2. **Students are divided into smaller groups (or pairs) for various instructional purposes. These groupings are accomplished in the following ways and for the various purposes:**
 - Students are grouped or paired heterogeneously to foster collaboration with others and to encourage communication and positive, productive social interaction. Working in heterogeneous, collaborative groupings involves accountability and respects prevailing rules governing group members’ conduct (to ensure accountability for all group members).
 - Students are grouped homogeneously, typically by need, to allow for instruction at the students’ level and in response to diagnosed gaps in learning. These groupings are never static; they change constantly—usually weekly or even daily—to reflect varying rates of student progress in mastering objectives.
 - Groupings may be cooperative, where students work with each other to accomplish assigned tasks; pairs, where students review and learn from one another; or varied-size groups, pulled together to allow for small group, targeted instruction.
3. **Activities are personally relevant and culturally responsive. Such activities are characterized by the following characteristics:**
 - Students are led to connect their learning to real-life scenarios or personal experiences, such as things they’ve seen or done themselves.

Appendix J (continued)
Characteristics of Cognitively Engaging Instruction
Tucson Unified School District
January 2014

- Learning scenarios are culturally responsive—learning activities always take into account and build on students' linguistic, ethnic, and socioeconomic diversity.
 - Students are encouraged to view new learning through a lens of their personal cultural perspective: what about that learning has significance in their own ethnic/cultural context? What is similar? What is different? What learning is culturally neutral?
- 4. Students are encouraged to think independently and critically:**
- The overall focus of learning activities is on thinking, not acquiring facts or knowledge. Knowledge acquisition is accomplished through projects and assignments.
 - Students engage in learning scenarios and activities that require them to think independently—in contrast to mainstream thinking or against majority opinion or stance. In such scenarios, students are encouraged to adopt a specific position or formulate an argument, whether it reflects their personal opinion or not, and research and defend that position to those possessing opposing viewpoints.
 - Students are involved in analytical thinking—breaking down concepts or processes into their various parts and demonstrating an understanding of how the parts relate to one another, or evaluating the advantages and disadvantages of all parts or perspectives.
 - Students are given tasks that require reviewing large quantities of information and data and summarizing them into brief, meaningful synopses.
 - Student activities reflect active cognitive processing, as first conceptualized by Bloom in his Taxonomy of Learning.
- 5. The teacher engages students in metacognitive strategies. These strategies include the following characteristics.**
- Students are asked to think and reflect on their own thinking. They can explain how they arrived at an answer, describe their thought processes in completing a task or solving a problem, and describe their progress in mastering a specific concept or skill.
- 6. Language structures and vocabulary are deliberately, consciously taught and integrated into all learning activities across all content areas.**
- Classroom activities explicitly integrate and teach vocabulary using authentic text and context-embedded approaches.
 - Learning activities across content areas simultaneously focus on content mastery as well as language skills: language structure, punctuation, vocabulary.
 - Students are engaged in multiple modes of communication—speaking, reading, writing, listening. Writing (for essays, projects) is implemented across content areas as a means to demonstrate critical, analytical thinking.
- 7. Instruction is differentiated to meet specific student academic needs and preferences:**
- Teachers utilize a variety of student groupings and multiple diagnostic tools and instructional resources to determine and teach required content (concepts, skills, knowledge, and vocabulary).
 - Teachers plan instruction based on data from formative, diagnostic tools, which reveal gaps in student learning and specific weaknesses in student mastery of intended objectives.

Appendix K

Characteristics of Culturally Responsive Teaching Tucson Unified School District January 2014

1. **The teacher consistently compares and contrasts different cultures, languages, experiences, and values with the dominant community cultures in the classroom, regardless of the content area.**

The teacher consistently allows students the opportunity to discuss their own and their families' experiences, values, and cultural experiences during the course of lessons and activities, within a context of acknowledging differences and similarities with the predominant community culture. The teacher displays an attitude of appreciating differences, presenting them in a positive light. This is a consistent approach every day, during various lessons or classroom scenarios.

2. **Actively researches different cultural perspectives and examples connected to instructional content and incorporates these into classroom lessons and discussions.**

The teacher actively seeks examples, from his/her students' own representative cultures as well as from other cultures, that tie into classroom lessons and discussions. For example, in a lesson on basic mathematical algorithms (division/multiplication), the teacher researches common global approaches to the same and introduces them in the classroom.

3. **Involves students, parents, and the community in contributing to cultural awareness and appreciation.**

Whenever possible, the teacher invites contributions from students, parents, and the community at large in learning activities that focus on curriculum content being taught with diverse cultural perspectives.

4. **Facilitates and encourages students to discuss concepts and new learnings in their native language in earlier stages of language development (not translating).**

When possible or desirable, the teacher allows small groups or pairs of students to discuss new learnings in their native language, to assure understanding of key curriculum concepts and vocabulary. For example, when reading a novel in class, students are occasionally grouped by native language to allow discussion of the plot and themes in the book, so students' comprehension is supported.

This approach is not to be confused with translating for students, although occasional translation (among students only) is acceptable. The teacher also allows students to contribute to classroom discussions in their native language if their English is not yet strong enough, with another student translating. This enables all students to contribute to discussions and activities.

5. **Incorporates cross-language, as well as cross-cultural, comparison and development.**

The teacher facilitates comparing languages and cultures in a deliberate way. For example, word walls, graphic organizers, and concept maps may be used with bilingual terms and expressions.

6. **Respects and values student input and frequently (daily) elicits student involvement and supports their personal connection to the learning.**

Students are always encouraged to contribute to classroom activities and discussions, sharing personal experiences that relate to new content. Such approaches also support scaffolding of curriculum content and make learning more personally relevant.

7. **Respects students' affective needs with regard to participation and involvement in classroom activities and discussions, particularly during the early stages of English development.**

The teacher allows students periods of silence or non-involvement, if a student feels uncomfortable participating or is struggling with communication issues. Such scenarios can be extremely stressful to children and emotionally challenging, and the teacher responds accordingly with sensitivity and tolerance. Every student is unique and should be encouraged but never forced to participate in every activity. Consider alternative forms of involvement if the activity is a type of assessment.