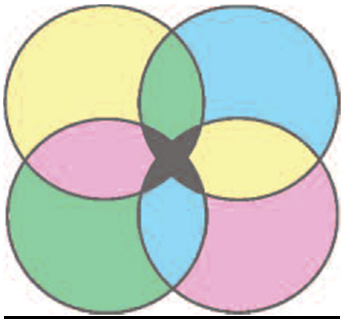

Cranium CoRE and Charlotte Danielson's *Framework for Teaching*

Domain 1: Planning and Preparation

1a Demonstrating Knowledge of Content and Pedagogy

"In order to guide student learning, accomplished teachers have command of the subjects they teach. They must know which concepts and skills are central to a discipline," Two central pedagogical components of Cranium CoRE, collaborative critical thinking and finding textual evidence to support an answer to textually complex questions cut across all disciplines.

1b Demonstrating knowledge of students

- Learning process – Cranium CoRE is all about "process," specifically a metacognitive process to explain why you think what you think based on the text you read or even the illustrations you saw.
- Student skills, knowledge and proficiency – The discussion and student collaboration used in Cranium CoRE is an important part to allow the students to share knowledge, mentor each other and take some control over their learning.

1c Setting Instructional Outcomes

- Value, sequence and alignment – Knowing how to locate text to find answers to challenging questions is a paramount life skill that is valued for college and career readiness, and aligns directly with ELA K-12 standards in every state. From the "read aloud" first step in the Cranium CoRE process to the collaborative discussion among teammates before answering the game questions, right through to the extra points for finding the author's words to validate the correct answers, Cranium CoRE scaffolds and sequences in a solid foundational way.
- Clarity – The multiple step gaming process, 1) Read aloud 2) Play the game in teams and 3) Defend answers using the author's words for extra points is extremely engaging and crystal clear as objectives for all participants.
- Balance – The balance can be seen at more than one level. There is a balance between high rigor and high engagement. Often you hear students say they had no idea they were learning. There is also a balance between independent critical thinking and interdependent collaborative thinking. Great practice for life.
- Suitability for diverse learners – With Cranium CoRE there is significant practical application for a blended classroom of diverse learners who work

together and learn to assist each other despite their different learning styles or capabilities.

1d Demonstrating knowledge of resources

- For classroom – One very concrete example of this comes into play almost every Cranium CoRE game. If students do not know a word's meaning in the question or one of the answers, they stop the process and raise their hand to inquire about the word. The students then lookup the word in question and determine the best definition. Great vocabulary practice.
- To extend content knowledge – Because of the team oriented, discussion based model of the Cranium CoRE game play, there is an endless opportunity for teammates to share and extend each others knowledge of the content at hand.

1e Designing Coherent Instruction

- Learning activities – The academic gaming with Cranium CoRE is the over-arching, highly attractive umbrella activity, however, there are multiple learning activities that routinely take place with each game. For example, reading aloud to practice elocution comes into play as does the skill of listening and following along with the text. Collaborative thematic discussion to determine the answer to complex textual questions is another key learning activity during each game. There is also a wonderful activity at the end of each game where points are awarded to teams for giving another team a compliment. Both the team *giving* as well as the team *receiving* the compliment earn extra points.
- Instructional materials and resources – Cranium CoRE academic gaming is only limited by one's imagination. Digital and/or print material from any source is possible, i.e., fiction or non-fiction library books, classroom sets of books, portions of textbooks, short stories, poems, articles on the Internet, magazine articles, etc. You could even make a game based on a field trip to the zoo, museum or some other location.
- Instructional groups – How an educator segregates groups of students for Cranium CoRE gaming is completely determined by whatever criteria is desired. It is common for teachers to combine students of diverse capabilities, backgrounds, cultures, etc. to provide a chance for mentoring within each team.
- Lesson and unit structure – More often than not, the Cranium CoRE academic gaming is used periodically to reinforce something challenging for the students because the students are so attentive and thoroughly engaged while playing. It is flexible enough to fit in wherever the teacher desires. The more you practice a skill, particularly a thinking skill like reading, writing, speaking or listening, the better you become at that skill.

1f Designing Student Assessments

- Congruence with outcomes – Cranium CoRE is in consistent harmony with career and college readiness goals and objectives. The most obvious ones are comprehension improvement, increased ability to think critically, improvement at finding text based evidence, and working collaboratively

with other students.

- Criteria and standards – Cranium CoRE is in alignment with the FSA K-12 ELA Standards. See Cranium CoRE's website with Florida's K-12 ELA Standards
- Formative assessments – The opportunity for observation of improved ELA skills with Cranium CoRE academic gaming is also endless. This gaming process is discussion based and allows for increased skill levels of the main ELA standards based reading, comprehension, critical thinking, finding textual evidence as well as defending answers verbally or in written format.
- Use for planning – In addition to being highly engaging and challenging, academic gaming like Cranium CoRE has the advantage of motivating students to behave better by using it as a reward for good behavior. It is like a classroom management tool in this regard.

Domain 2: The Classroom Environment

2a Creating an Environment of Respect and Rapport

- Teacher interaction with students – students interaction with students - The consequence of playing games, having thematic discussions about literature, both fiction and non-fiction, and asking the students to share their thoughts is an outstanding framework for building relationships between the teacher and students as well as the students with each other. In fact, one of the key bonuses of Cranium CoRE gaming has to do with giving points at the end of each game for teams giving "put-ups" (compliments –versus "put-downs") to other teams. See 1e Designing Coherent Instruction * Learning activities.

2b Establishing a Culture for Learning

- Importance of content – The content for Cranium CoRE is two-fold. On one hand, the content is anything and everything in print, both on paper and digitally. This becomes the basis for the gaming and multiple best practice methods within Cranium CoRE. On the other hand, there is the content with the games themselves. If gaming is the heart of Cranium CoRE, the textually complex, higher order thinking questions are the soul. These drive the discussion and collaborative critical thinking. Content is king.
- Expectations for learning and achievement – The bar is set high for the participants due to the nature of the questions within the games if these questions have been made following our recommended formula for question writing. Rigor and high engagement is how learning works best.
- Student pride in work – The competition in Cranium CoRE creates a friendly and healthy environment for high achievement as well as collaboration. It becomes contagious and self-fulfilling. Given the freedom to voice their viewpoint and defend their choice of answers builds confidence as well as pride in their work.

2c Managing Classroom Procedures

- Instructional groups – Because Cranium CoRE uses a collaborative intelligence model, it fits quite nicely into an instructional group framework. It is often desirous to mix the team members by capability to allow for mentoring to take place naturally. There is great flexibility for the teacher to establish the criteria for the grouping and the students readily adapt to

whatever is chosen because they become used to this flexible format.

- Transitions – The transitions take place seamlessly within Cranium CoRE typically. It starts by reading aloud to the whole class where any individual can do the reading of a section of the selected text. This transitions to the team formation where the individual team members will think independently but discuss and work interdependently to determine the best answer and find the text based evidence during the academic game play. The play can be self-directed over time and even scaffold to the point of having a student take on the role of game show host.
- Management of materials and supplies – Since Cranium CoRE is dependent on primarily on print material, both on paper and digitally, the distribution and management of the materials is critically important. Most often, the material used, primarily books, can be kept by the students for a set period of time or distributed and used each time an academic game is played based on that specific text.

2d Managing Student Behavior

- Expectations – With Cranium CoRE the expectations are straightforward, easily understood and very achievable. They include, but are not limited to: reading along or aloud with the text before game play, discussing the alternative choices for the correct answer with teammates, finding the textual evidence to defend the correct answer, discussing why the correct answer was correct or, conversely why the incorrect answers were incorrect, treating fellow teammates and other team's players with respect.
- Monitoring behavior – Cranium CoRE is like a classroom management vehicle because the engagement level among the students is so high that there is a much greater chance that there will be little misbehavior. In fact, teachers often use Cranium CoRE as a reward for good behavior during the week and, ironically, the students are motivated to behave well in order to play a rigorous academic game that increases their ELA skills of comprehension, collaboration and finding textual evidence to textually complex, higher order thinking questions.

2e Organizing Physical Space

- Safety and accessibility – The exciting, TV game show format for Cranium CoRE contributes to the screen being the vocal point for the game play. Consequently, the screen needs to be visually accessible to all participants. However, the ability to see and hear all the team's players is also vital during game play while defending correct answers and having thematic discussions.
- Arrangement of furniture and resources – Typically Cranium CoRE is best used in a theater style arrangement with a semi-circle layout so participants can see and hear each other.

Domain 3: Instruction

3a Communicating With Students

- Expectations for learning – The goals expressed for Cranium CoRE gaming revolve around the process of thinking together (collaborative intelligence)

with other students. Reading, writing, speaking and listening all involve "thinking" and all improve with practice. The students who participate in this activity often can be scaffolded into taking responsibility for self-directed learning.

- Directions and procedures – The Cranium CoRE academic gaming protocol is simple to understand and easy to self-enforce by the participants. The key is respect for the players, both on your own team as well as on other teams, by sharing ideas and giving them a chance to explain their reasons for thinking the way the did (metacognition).
- Explanations of content – Here again, due to the nature of the Cranium CoRE academic gaming experience, the content is uncovered and discussed in a self-directed manner as the games are played after the text is read.
- Use of oral and written language – The teacher and the students model the behavior by using the building blocks for learning while playing Cranium CoRE academic games: words. Speaking, listening and reading are the most common language skills practiced, however, a teacher can quickly scaffold the students to writing by either allowing the students to make their own games or allowing the students to occasionally write their defenses for correct answers before reading them aloud by team.

3b Using Questioning and Discussion Techniques

- Quality of questions - Questioning and discussion are the only instructional strategies specifically referred to in Charlotte Danielson's framework for teaching. The *heart* of Cranium CoRE is the academic gaming that lures the students into a metacognitive experience. The *soul* of Cranium CoRE are the textually complex questions that drive the discussion and defense of the correct answers. This *heart and soul* allows Cranium CoRE to align perfectly with all teaching frameworks.
- Discussion techniques - The thematic discussion based on text evidence to support the correct answers within Cranium CoRE is directed by the students and can be guided by the teacher (game shoe host). It is a metacognitive process. "Tell me what you think and why, based on the author's words we read," is the
- Student participation – The student participation with Cranium CoRE academic gaming is extremely high due to the collaborative intelligence model it uses. The skill of looking at the text evidence and taking the time to share thoughts with teammates is rewarded based on the scoring protocol within Cranium CoRE. Indicators: 1 - Questions of high cognitive challenge, formulated by both students and teacher. 2 - Questions with multiple correct answers, or multiple approaches even when there is a single correct response. 3 - Effective use of student responses and ideas. 4 - Discussion in which the teacher steps out of the central, mediating role. 5 - High levels of student participation in discussion.

3c Engaging Students in Learning

- Activities and Assignments – Cranium CoRE activities are centered on collaborative critical thinking, discussion and debate, finding text evidence and can scaffold to writing textually complex questions about any subject area or discipline. Having a class of totally engaged students is the norm in a classroom using Cranium CoRE.

- Grouping of Students - The protocol for grouping of the students is totally dependent on the respective teacher using Cranium CoRE. There are many options: students of similar background and skill may be clustered together, or the more advanced students may be spread around into the different groups. Alternatively, a teacher might permit students to make their own groups or to form them randomly.
- Instructional materials and resources – The instructional materials used with Cranium CoRE are open to any discipline, type or format. A classroom teacher can use library books, textbooks, articles from the Internet, DBQs (Document Based Questions), etc., to support the self-directed learning processes involved in the academic gaming with its many best practice classroom methods.
- Structure and pacing – The hallmark of Cranium CoRE academic gaming is the time for reflection and discussion. These indicators are consistent with Cranium CoRE classroom usage and are listed in Danielson's *Framework for Teaching*: 1) Activities aligned with the goals of the lesson. 2) Student enthusiasm, interest, thinking, problem-solving, etc. 3) Learning tasks that require high-level student thinking and are aligned with lesson objectives. 3) Students highly motivated to work on all tasks and persistent even when the tasks are challenging. 4) Students actively "working," rather than watching while their teacher "works." 5) Suitable pacing of the lesson: neither dragging nor rushed, with time for closure and student reflection.

3d Using Assessments in Instruction

- Assessment criteria – With Cranium CoRE, it is usually very clear what the criteria for assessment is, although it is layered in a subtle way. It starts with collaboration and critical thinking to determine the answer to a textually complex question. Then it bridges to discussion and defending answers using the author's words within an oral or potentially written presentation. The pinnacle of this scaffolded journey of learning is when the students can create their own Cranium CoRE games to evoke critical thinking and discussion in other students.
- Monitoring of student learning – With Cranium CoRE, the mainstay here is the back and forth discussion and metacognitive process of finding out what a student is thinking and, more importantly, why, based on the text encountered. This classroom process mirrors the endless real life situations the students will experience in the 21st century world we inhabit. This is also a relationship building process between the students and each other and the students and the teacher.
- Feedback to students – This would be considered one of the strengths of this academic gaming process. The feedback is constant because it is discussion based, collaborative in nature, metacognitive in design and multi-directional, coming from students and teacher alike. It is beyond college and career readiness. It is *real life readiness* in it's essence.
- Student self-assessment and monitoring of progress – Self-directed learning is the goal with this academic gaming process called Cranium CoRE.
  Here are the indicators: 1) Teacher paying close attention to evidence of student understanding. 2) Teacher posing specifically created questions to elicit evidence of student understanding. 3) Teacher circulating to monitor student learning and

to offer feedback. 4) Students assessing their own work against established criteria. The first three of these happen quite naturally within the academic gaming structure already. The last can easily be incorporated with a few questions about self-assessment from the team members at the end of any Cranium CorE game.

3e Demonstrating Flexibility and Responsiveness

- Lesson adjustment – Cranium CoRE academic gaming is a continual adjustment exercise due the very nature of the textually complex questions and, depending on the topic being covered, the direction the subsequent discussions can lead. The opportunity for expressing thoughts and feelings about the subject matter is endless and healthy.
- Response to students – Occasionally, again based on the subject matter being covered in these academic games, the opportunity may arise for a true teachable moment. For example, a student may share an emotional moment from their past that is parallel to a character in the text. When a class can arrive at a point where all of the students feel safe to express their thoughts if done appropriately, it is a great place to be. Cranium CoRE leads in this direction more often than not.
- Persistence – The give and the take of ideas within the Cranium CoRE academic framework lends itself to self-directed classroom interaction where the students are helping assist this learning process when a student or more are facing a challenge comprehending a concept being discussed. Indicators: 1) Incorporation of student interests and events of the day into a lesson. 2) Visible adjustment in the face of student lack of understanding. 3) Teacher seizing on a teachable moment.

Domain 4: Professional Responsibilities

4d Participating in a Professional Community

- Relationships with colleagues – Cranium CoRE academic gaming is a very alluring vehicle for teachers within and across disciplines to collaborate and bring some higher engagement to their classrooms. You can also challenge each other to arrange for classes to play each other's games that the students created.
- Involvement in a culture of professional inquiry – The multiple best classroom practices center on the textually complex questions that drive the inquiry process. Teachers can instill within each other a pride in applying these best practice classroom methods and help create a wonderful life-long learning culture for the students to experience.
- Service to the school – The great news about an exciting example of how learning can look with Cranium CoRE academic gaming is the spill over of the benefits to the student's life. That is why life readiness is the mantra for Cranium CoRE in addition to collage and career readiness.
- Participation in school and district projects – Because of the flexibility of Cranium CoRE to allow for creativity with how the academic games are made as well as used, the limit is the teacher's imagination. For example, it is outstanding to have older students within and across schools create and then play their Cranium CoRE games with younger students. Or to have schools challenge each other to create and/or play academic games.