

Subject Matter Expert Review
TAACCCT Grant – Round 3
Findings & Report

Program: Summer Bridge Program

Program Courses: English 091: Food Fight!; English 091: Mindset for Success!; NCS 012: Review of Math Fundamentals

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Subject Matter Expert Credentials:

- Delaware Technical & Community College, Stanton Campus, Delaware 1998-Present
 - Developmental Education Program Coordinator, Stanton English Department
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Synopsis of Findings: The Summer Bridge Program at Delaware Technical Community College (DTCC) is an accelerated Developmental Education (DE) program that uses research-based methods to help prepare students for their first year at DTCC. Responding to the call of the American Association of Community Colleges (2014) to improve college readiness, the Summer Bridge Program consists of an English 091 course and a NCS 012 math course.

Two English 091 courses were developed for the Summer Bridge Program, Food Fight! and Mindset for Success!, the latter course is currently offered in the program. Grounded in topics relevant to incoming college freshmen, both English courses incorporate teaching explicit reading and writing skills, critical thinking through authentic readings, and strategy development (Perin, 2013). The English courses use best practices such as goal setting, strategy instruction, writing responses to readings, inquiry activities, collaborative assignments, summary writing, and sentence-combining activities. While these practices, along with others, have shown positive effects in middle school and high school (Graham & Hebert, 2010; Graham & Perin, 2007), additional research has shown strategy instruction to benefit community college students as well (MacArthur & Philippakos, 2013).

The NCS 012 math course, Review of Math Fundamentals, promotes self-efficacy through a flipped-classroom format. The NCS 012 course incorporates, explicit instruction, class discussion, structured pacing, the Limespring computer program, and multiple opportunities for meeting course objectives.

Research has shown that with the proper supports in place, many students can benefit from accelerated DE courses (Jaggars, Hodara, Cho, Xu, 2014). The Summer Bridge Program at Delaware Technical Community College is designed to prepare students for their first year of college by offering an accelerated yet effective introduction to English and math curricula.

1. PROGRAM AND COURSE OVERVIEW AND OBJECTIVES	The overall design and purpose of the program and each course is made clear to the student. Core Course Performance Objectives (CCPO's) build upon knowledge and skills through the sequence of the program and align to the Program Graduate Competencies (PGC's).
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<i>Specific Review Standard</i>	Accomplished	Satisfactory	Not satisfactory	Not applicable
1.1 The program graduate competencies are clearly stated.				x
1.2 The goals and purpose of each course are clearly stated.	x			
1.3 Prerequisites and/or any required competencies are clearly stated.	x			
1.4 Learning objectives for each course describe outcomes that are measurable.	x			
1.5 Learning objectives are appropriately designed for the level of each of the courses.	x			
1.6 Instruction, activities, and assignments in courses are scaffolded from course to course, and throughout the program.	x			

Comments: The Summer Bridge Program postcard clearly states that the program is a college transition program with the goal of preparing students for their first year at DTCC. The location and dates of the program are clear, as well as the orientation date and time and the information that will be covered. One suggestion I offer is to list the courses that comprise the Summer Bridge Program on the postcard. For instance, the postcard might read *accelerated courses in English and math that reinforce a solid foundation for students' first year in college*. Also, it could be beneficial for students and parents if the postcard had Free Application for Federal Student Aid (FASFA) written out for those who may not be familiar with the acronym.

Since the Summer Bridge Program is a preparatory program, it does not have Program Graduate Competencies like terminal programs at DTCC. However, the Core Course Performance Objectives (CCPO's) are clearly stated on both English syllabi and the math syllabi and all are appropriate for this student population. The CCPO's align with the Core Curriculum Competencies (CCC's), which are also clearly stated on the syllabi.

The syllabi for both English courses and the math course provide a clear description of the courses. Prerequisite courses or appropriate placement scores are also listed on all syllabi. Both English courses and the NCS 012 course make the learning objectives clear by listing the Measurable Performance Objectives (MPO's). Both CCPO's and MPO's are appropriately

scaffolded for this population. English MPO's start with a focus on strategies and end with summarizing college-level text, which presupposes both reading comprehension and writing ability (Graham & Hebert, 2010). Math MPO's start with essential math skills and progress through fractions, decimals, ratios, rates, percent, order of operations, and concludes with solving simple linear equations.

The English 091 Mindset for Success! course and the NCS 012 Review of Math Fundamentals course have additional documents to clarify the goals and requirements of the courses. The Course Overview and Course Schedule documents in the Mindset for Success! curriculum are excellent supplements to the syllabus because they provide students with a precise overview of the course components and the pacing of the course. Similarly, in the NCS 012 math course, the Orientation PowerPoint and the Pacing Chart document are effective at making the goals and the requirements clear by providing an overview of the course and explaining the flipped-classroom model.

I suggest three minor modifications on the English 091 syllabus. Both the Course Description and Core Course Performance Objective #1 state that the course strives to improve reading fluency and comprehension. In an accelerated course such as this, reading fluency would likely be in place. Additionally, there are no activities in the course designed to address reading fluency. Practice with reading fluency would be better suited in a lower-level (DE) English course. Omitting the term *improve fluency* from both the Course Description and CCPO #1 would make both statements more accurate. The third change is to CCPO #2. Rather than state, "Use explicit writing strategies and skills to plan, organize, and compose well-structure essays and written responses," I would recommend changing the statement to read, "Use explicit writing strategies and skills to plan, draft, and revise well-structured essays and written responses." Organizing is part of the planning stage and composing and drafting are synonymous, but missing from this description is revising, one of the most important stages in the process. Revising does take place in the course, so listing it in CCPO #2 is appropriate. These changes could be made without changing the alignment to the CCCs.

Additionally, I suggest adding two pieces of information to the Course Overview document in the English 091 Mindset for Success! course. I would recommend writing a brief explanation of both the Reading Assessment grade and Participation grade in Part I: Final Assessments with Rubrics. The other two assessments, the I-Search Paper and Multi-modal Presentation, both have brief descriptions accompanying them. While I would not expect the other two descriptions to be too explicit because of the need to possibly modify them, both assessments combined account for 40 percent of the grade, so students should know what type of activities will be included in these assessments.

My suggestion for the NCS 012 math course would be to clarify the length of the course. The Summer Bridge Program postcard advertises the program as three weeks long, but the Pacing Chart structures the course as four weeks. The Orientation PowerPoint refers to an option to finish early and start Math 015 if needed. It adds that students who complete Math 012 and Math 015 in one semester will only need to pay for one class. The financial benefit and the logistics of how students take advantage of this opportunity should be clarified.

2. RELEVANCY	Program Graduate Competencies (PGC's) and Core Course Performance Objectives (CCPO's) are relevant to students, industry, and employers.
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<i>Specific Review Standard</i>	Accomplished	Satisfactory	Not satisfactory	Not applicable
2.1 Program Graduate Competencies (PGC's) represent industry's expectation of the overarching knowledge, skills, and abilities an associate-degree level student should have.				x
2.2 Program competencies (PGC's) and core course competencies (CCPO's) are relevant to industry and employers.				x
2.3 Instruction, activities, and assignments in individual courses are relevant and engaging to students.	x			

Comments: As previously stated, the Summer Bridge Program does not have Program Graduate Competencies, rather it has Core Curriculum Competencies, which the Core Course Performance Objectives effectively cover in both English courses and the math course. Additionally, the Course Schedule, Course Overview, Orientation PowerPoint, and Pacing Chart in the English 091 Mindset for Success! course and the NCS 012 Review of Math Fundamentals course provide further clarification of course goals, requirements, and grading.

A major strength of the Summer Bridge Program is that the instruction, activities, and assignments in the English courses focus on a theme relevant to either the students' major, such as the Food Fight! curriculum, or the broader theme of overcoming challenges, as in the Mindset for Success! curriculum.

In both English curricula, there is a clear recognition that reading and writing activities do not take place in a vacuum. The Food Fight! Curriculum centers on Morgan Spurlock's book *Don't Eat This Book: Fast Food and the Supersizing of America*. The Mindset for Success! Curriculum centers on Carol Dweck's book *Mindset: The New Psychology of Success*. By focusing on relevant themes both curricula emphasize the role the sociocultural context has in reading comprehension. Using additional readings in each course related to the same theme helps students construct meaning while reading. Both the reading and the research guides do an excellent job of scaffolding students into working on their own, thus reinforcing self-regulating habits. The mini-lessons in reading and writing provide an effective definition and explanation of the skills to be developed and the Open Education Resource (OER) provides opportunities for grammar practice.

I have two suggestions for grammar instruction. The effectiveness of direct instruction in grammar has been widely studied. While there is consensus that some instruction must take

place, there is debate on the most effective methods to teach grammar, particularly for older students. My first suggestion is to provide more practice combining sentences. Sentence combining is shown to be effective when compared to other practices (Graham & Perin, 2007). My second suggestion is based on my teaching experience and experience as a grant consultant for a three-year research project led by Dr. Charles MacArthur and funded by The National Center for Education Research. In the past, after securing the proper permissions from students, I have used student writing to teach grammar, both strong examples and weak examples. Given the accelerated nature of the course, it is nearly impossible to cover all grammar rules; however, showing students examples of both strong and weak writing and asking students to revise the weak examples emphasizes the need to self-regulate.

The NCS 012 Review of Math Fundamentals engages students by promoting self-efficacy, an important trait for college students to develop, through multiple attempts to be successful in a flipped-classroom format. The math curriculum starts with the Whole Number Review PowerPoint that provides the foundation for the course by reviewing important concepts ranging from place values to the order of operations. The math curricula format can enhance motivation to learn by putting the onus on the students. Students have multiple attempts at successfully completing the checkpoints in preparation for the module tests. Additionally, the flipped-classroom format requires that student self-advocate throughout the course.

The Summer Bridge Program engages students in two ways—through theme and course structure. The English curricula enables students to address the challenges of constructing meaning from text, whereas the math curriculum promotes active engagement through a course structure that enables students to take charge of their learning. These attributes, along with the support of knowledgeable instructors, can help students succeed in their first year of college.

3. RESOURCES AND MATERIALS	Instructional materials being delivered achieve stated course objectives and learning outcomes (<i>note: not all program/course materials are deliverable under CC BY licensing</i>).
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<i>Specific Review Standard</i>	Accomplished	Satisfactory	Not satisfactory	Not applicable
3.1 The instructional materials contribute to the achievement of the stated course learning objectives.	X			
3.2 The purpose of instructional materials is clearly explained.	X			
3.3 The instructional materials present a variety of perspectives and approaches on the course content.	X			
3.4 The instructional materials are appropriately designed for the level of the course.	X			

Comments: As previously stated, one of the strengths of the Summer Bridge Program is the emphasis on the process as well as the product and self-efficacy. There are varied approaches to understanding course content. For instance, both English curricula emphasize what college students need: recognition of reading and writing as a problem-solving process, research skills, and summary writing. In math, in-class instruction is accompanied by Limespring modules. Additionally, both the English and math curricula incorporate evidence-based strategies such as Cornell notes, Frayer models, concept maps, and KWL charts in English and the use of mnemonics in math.

When teaching strategies, one of the biggest challenges is learning transfer, will the students use the strategies when they leave the program? The goal of an accelerated program such as the Summer Bridge Program to prepare students, in a short amount of time, for the tasks that they will encounter in reading, writing, and mathematics in the first year of college. With so many strategies introduced, learning transfer can be a challenge. Students are required to know what the strategies are, how to use them, and when to apply them. For any faculty member who has attempted to teach self-regulating strategies to students, the concern of learning transfer is paramount. As previously stated, both the English curricula and math curricula incorporate effective strategies. My recommendation for ENG 091 is for the course designers to provide a *framework* that makes the strategies easily remembered for students when they complete the program.

For instance, a framework for reading strategies could provide students with a relatively easy way to remember how to approach college-level readings. Currently, the reading guides in English 091 divide reading tasks into *before reading*, *during reading*, and *after reading*, and the guides offer a variety of strategies students can use to help them comprehend the reading.

A framework that I have used in my courses has been to emphasize the three stages of reading, by labeling them *preview* (before reading), *annotate*, (during reading), and *summarize* (after reading). Repeated exposure to preview-annotate-summarize framework may help students remember these tasks for their college-level readings in the future.

Furthermore, evidence-based strategies can be added and changed in each stage depending on the type of reading. For example, before reading an informative text in its entirety, previewing the reading is a vital step to setting a goal for the assignment. A mnemonic can be created to help students remember this important task. A mnemonic such as STARTER could be used to orient the student towards the reading. I designed the STARTER mnemonic to incorporate the characteristics of expert readers. By answering the questions associated with the initial letter, students can set a goal for the assignment. The STARTER requires that students consider several factors, make predictions, and set a goal before reading a text: Source? Topic? Author's purpose? Resources available to build or activate background knowledge? Text construction? Evaluate (the answers to the previous questions), Reason for reading? The effectiveness of mnemonics has been documented (Graham & Perin, 2007); examples like this one or others could be incorporated in both reading and writing.

The during reading stage requires that students annotate. Instructors can vary what strategies students use while annotating, from asking questions, to note-taking, to using graphic organizers or focusing on vocabulary. Many of these strategies were incorporated in the Mindset for Success! curriculum. Using a cohesive framework, instructors can help the students understand that the effectiveness of a strategy can depend on the text, so students can learn to monitor their comprehension and vary their strategy use accordingly.

After reading a text, students should always summarize the text. The reading guides provided instruction and several opportunities to summarize. To these strategies, I would add magnet summaries or any other *shrink* strategy. Created by Doug Buehl, the *magnet summaries* entail that students adhere to constraints that require them to distinguish between major concepts and minor concepts in a reading. Students are required to choose an important word or term (the magnet word) from a reading or part of a reading, and then choose four words or terms (attractor words) that are related to the magnet word. After completing this task, students are asked to create a meaningful sentence that include all five words. This recursive activity requires students to synthesize major concepts from minor concepts (Buehl, 2014). By modeling this activity, instructors in the Summer Bridge Program can demonstrate how the process works and how to accomplish it.

One recommendation for math curriculum is to incorporate Utility Value (UV) interventions. These brief and informal writing prompts require that students write about how the material being learned in class could be relevant to their lives (Hulleman, Godes, Hendricks, Harackiewicz, 2010). These writing prompts are a straightforward, simple method of writing that can result in discovery of implicit knowledge, while making personal connections and practicing cognition and metacognition (Klein, Arcon, Baker, 2016). These brief writing interventions have been effective at generating student interest in a topic (Hulleman, et al., 2010). Both English curricula incorporate Writing To Learn (WTL) methods in the research

guides. However, studies have shown that these WTL practices work with other subjects such as math, science, and psychology (Hulleman, et al., 2010). UV interventions have increased student perceptions of the relevance of their studies, thus causing them to be more interested and, in some cases, increase performance in the class (Hulleman, et al., 2010). Math instructors could collaboratively design UV writing prompts and implement them in the Discussion Starters PowerPoints.

4. ASSESSMENT AND MEASUREMENT	Assessment strategies use established ways to measure effective learning, evaluate student progress by reference to stated learning objectives, and are designed to be integral to the learning process.
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<i>Specific Review Standard</i>	Accomplished	Satisfactory	Not satisfactory	Not applicable
4.1 The course evaluation criteria/course grading policy is stated clearly on each syllabus.	X			
4.2 Course-level assessments (those that can be delivered) measure the stated learning objectives and are consistent with course activities and resources.	X			
4.3 Specific and descriptive criteria are provided for the evaluation of students' work and participation and are tied to the course grading policy.	X			
4.4 The assessment instruments (that can be delivered) are sequenced, varied, and appropriate to the content being assessed.	X			

Comments: Final assessments and grading percentages for the English curricula are clearly stated on the Course Syllabus and Course Overview. As previously mentioned, both the Reading Assessments and the Participation grade should be accompanied by brief descriptions like those of the other two major assignments, I-Search Paper and the Multi-Media Presentation. The Course Policies handout in the English 091 Mindset for Success! curriculum clearly informs students about missing class, completing assignments, and making up work. All assignments are appropriate for this level students and align with the stated objectives of the course.

The NCS 012 grading criteria is clearly stated on the Course Syllabus and the Orientation PowerPoint. All tests align to the stated objectives of the course. While it is clear students have multiple chances for practice and check points, it is implied that there are two opportunities to pass the four Module tests. I would recommend that if this is the case, then that policy be stated explicitly. Additionally, Like the Mindset for Success! curriculum, I would recommend that the NCS 015 course have a policy handout in case of missed classes, assignments, or extenuating circumstances.

These combined courses create an effective Summer Bridge Program that can prepare students for the demands of their first year in college and contribute to effort to increase college readiness in the United States.

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