



Kempsville High School Entrepreneurship and Business Academy

Year-One Implementation Evaluation

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Implementation
Evaluation Report
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Executive Summary

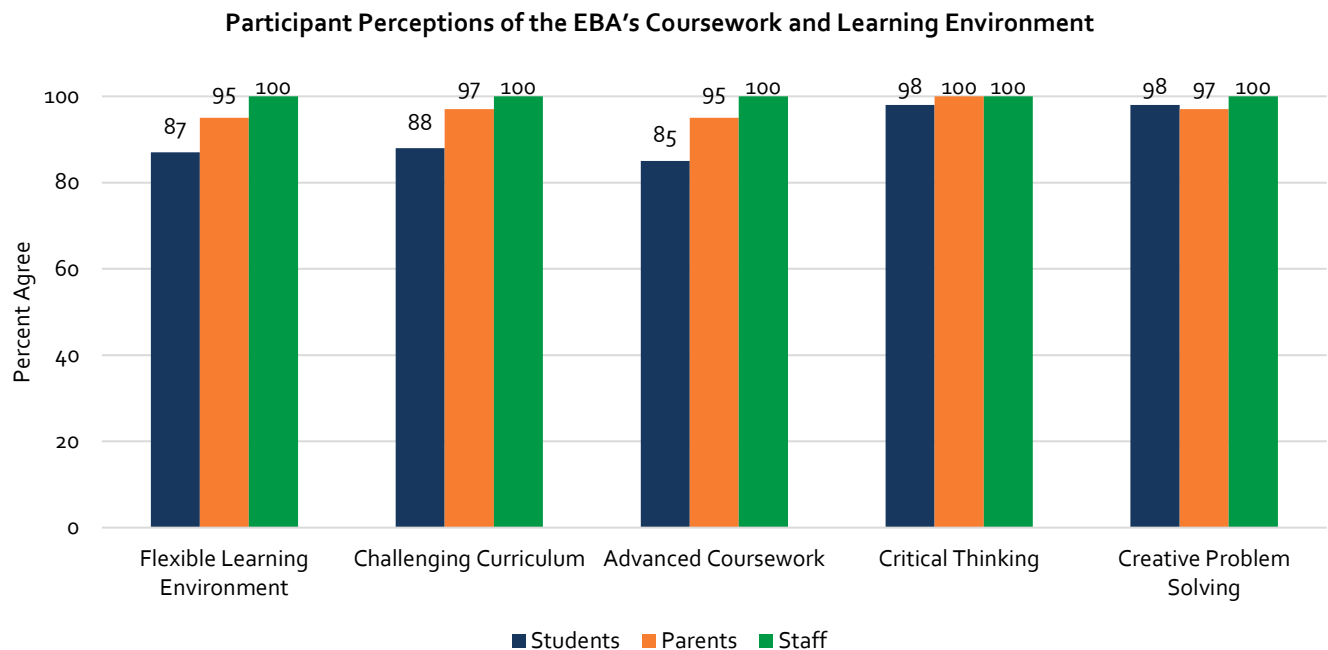
On October 6, 2015, the School Board approved an Entrepreneurship and Business Academy (EBA) to be opened the following September as a school within a school at Kempsville High School (KHS). During the 2016-2017 school year, the academy underwent a year-one evaluation in accordance with School Board Policy 6-26. The evaluation focused on the operational components of the EBA, characteristics of academy participants, progress made toward meeting the goals and measurable objectives of the EBA, participants' perceptions, and the additional cost of the academy to the school division. The evaluation was based on both quantitative and qualitative data that were collected through surveys, reviews of documents, and data from the Virginia Beach City Public Schools (VBCPS) data warehouse.

Key Evaluation Findings

Operational Components

- The implementation of the EBA followed the timeline approved by the School Board, except that renovations that had initially been scheduled to occur in two phases during the summers of 2017 and 2018 were rescheduled to be conducted at one time during the summer of 2018.
- The marketing and application process resulted in completed applications from 265 students. Of these 265 students, 226 students (85%) received letters offering admission. Of these, 118 students accepted the offer that they received, which was 94 percent of the 125 student capacity in the EBA proposal.
- Of the 118 students who accepted the offer, 108 students (92%) were enrolled in the academy at the beginning of the school year. Of the 108 enrolled students, 101 students (94%) remained enrolled at the end of the school year.
- Despite the delayed renovation and the shortfall of students, the academy opened on schedule in September 2016 with one coordinator, one school counselor, and seven teachers to serve the 108 students.
- The ninth-grade course of study followed the plan set forth in the approved proposal. It included advanced placement courses and EBA-specific classes designed especially for the academy as well as classes open to other KHS students. It also included courses that will result in certification as a Microsoft Office Specialist (MOS), as well as dual-enrollment courses at Tidewater Community College (TCC) toward an associate's degree or postsecondary credit transferrable to other colleges and universities.
- Perceptions of the implementation by the student, parent, and staff participants in the academy were all very favorable. Agreement rates on most survey items ranged from 85 to 100 percent, with most agreement rates exceeding 95 percent.
- The community partners affiliated with the EBA were of two general varieties – academic institutions and businesses.
- The academic institutions most notably included TCC, Babson College, and Old Dominion University (ODU). They provided dual enrollment opportunities for students and professional learning opportunities for EBA staff members. They also provided curricular support and resources.
- The business partnerships are intended to develop meaningful links for students between classroom instruction and real-world experience, creating opportunities for mentoring, networking, and employment. Some local business people served as guest speakers or Master Class instructors. Some will serve as members of the EBA Advisory Committee.

- Approximately 40 business partnerships had been established by the end of the 2016-2017 school year. They included but were not limited to restaurants, law firms, insurance agencies, civic groups and organizations, banks, and retailers.



- The EBA staff members unanimously agreed that the professional learning they had received was useful, sufficient, and effective.

Characteristics of Participants

- The demographics of the EBA students were similar to those of the other ninth graders at KHS and in the division overall with respect to race/ethnicity and gender with differences in economic, special education, limited English proficiency (LEP), and gifted status.
- One-quarter of the EBA students (25%) resided within the KHS attendance zone. The remainder were drawn from all other high school attendance zones except for Kellam.
- Because of the effectiveness of the academy selection process, the EBA student group had higher averages than the non-EBA ninth graders at KHS on all indicators of academic achievement, including class grades and test results. The EBA students also tended to have fewer discipline referrals and suspensions than the non-EBA ninth graders at KHS.
- The EBA staff tended to be female and Caucasian. All the teachers were certified. Four of the EBA teachers had two to five years of instructional experience. Two of the EBA teachers had more than five years of experience.

Progress Toward Meeting Goals and Objectives

- The academy had one overall goal: “To provide students the business skills and knowledge necessary to succeed in any career related fields of study in postsecondary education and in the workforce.” Although attainment of this goal could not yet be evaluated during the EBA’s first year, the progress made toward meeting the goal was found, overall, to be encouraging.

- The proposal included five objectives for students and one objective for the academy to achieve.

Objective #1: Program of Study

- A review of course offerings and academic requirements confirmed that the academy adhered to the curriculum set forth in the proposal.
- The required, elective, EBA-specific, and certification prep courses for the ninth-grade students were rigorous in nature. In combination, they provided a sequential program of multiple pathways infused with critical thinking, creative problem-solving, and technology skills.
- Of the EBA students, 99 percent earned a grade average equivalent to at least a C in all the classes they took during 2016-2017.
- Toward the end of their year-one experience, 101 students selected the academic strand that the remainder of their EBA studies would follow. A total of 58 students (57%) chose the Entrepreneurship and Innovation strand; 23 students (23%) chose the Business Information Technology strand, and 20 students (20%) chose the Corporate Finance strand.

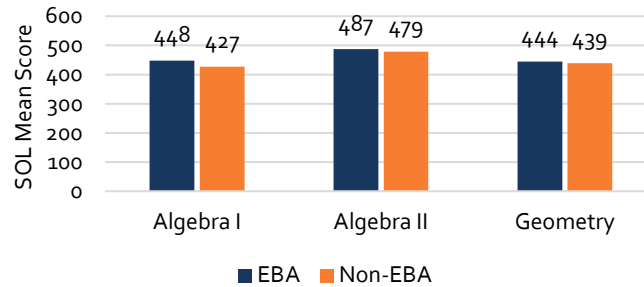
Objective #2: Associate's Degree/Postsecondary Credit

- In accordance with the proposal, the EBA offered two ways to earn postsecondary credit – through Advanced Placement (AP) and/or dual-enrollment courses.
- During the 2016-2017 school year, 55 of the EBA's 101 students (54%) took AP Human Geography, the only Advanced Placement course available to ninth-grade students. By comparison, only 4 percent of the non-EBA freshmen (16 of 363 students) took AP Human Geography.
- The dual-enrollment courses with TCC are intended for sophomores, juniors, and seniors. In preparation, 80 EBA students took the Virginia Placement Test (VPT) in February 2017. Their first dual-enrollment class was scheduled for either the summer of 2017 at TCC or the fall or spring of 2017-2018.

Objective #3: Class Grades and Test Results

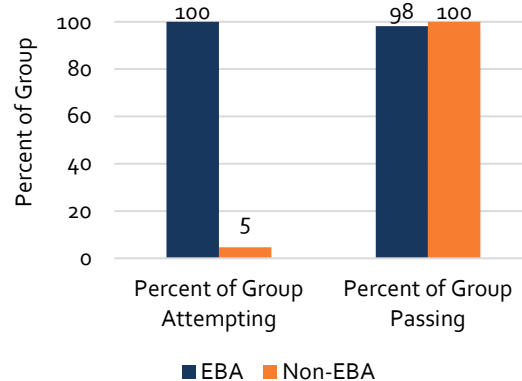
- The third objective called for EBA students to exceed the objectives of the VBCPS curricula and the Commonwealth of Virginia Standards of Learning (SOL) tests.
- The grade averages of the EBA freshmen were found to be significantly higher than the grade averages of their non-EBA counterparts. The finding held true for both sets of grade averages examined: a partial grade average of core classes only and a full grade average of all classes taken during 2016-2017.
- Of the EBA students 99 percent had both grade averages above a 2.0. By comparison, only 67 percent of the non-EBA students had both grade averages above a 2.0.
- A review of 2016-2017 SOL results revealed that the average SOL math scale scores of the EBA students were consistently higher than the average SOL math scale scores of the non-EBA students.

Comparison of EBA and Non-EBA SOL Math Scale Scores for 2016-2017



- Similar patterns of results were found for the SOL science and social studies scores.
- A comparison of Reading Inventory (RI) results also revealed a similar pattern, in which the average Lexile score of the EBA students and the percentage of students reading on grade level was higher than that of the non-EBA students in the spring.
- Many more EBA students (100% of 101) than non-EBA students (5% of 363) took tests to earn an industry-related certification, usually toward becoming a Microsoft Office Specialist (MOS). Of the 225 tests taken by the 101 EBA students, 221 tests (98%) were passed. By comparison, the 17 non-EBA students passed all 21 of the tests they took.

Comparison of EBA and Non-EBA Certification Tests Percent of Group Attempting and Passing



Objective #4: Enrichment Activities

- In addition to taking classes, the EBA experience involves a variety of enrichment activities, including job shadowing, guest speakers, field trips, and community service.
- Job shadowing was designed to begin in tenth grade. Progress was made during 2016-2017 toward identifying business owners and others to be shadowed.
- During 2016-2017, more than 50 guest speakers and Master Class instructors made presentations to the EBA students. Such activities provided students with useful information as well as with opportunities to make useful connections that could lead to mentoring, interning, obtaining financing for entrepreneurial projects, or securing future employment.
- The EBA students were taken on several field trips during the 2016-2017 school year. Some of the field trips involved all academy students while others involved the students from just one or two classes. While some of the field trips were to venues such as the Norfolk Forum, where the students attended a talk by Barbara Corcoran of *Shark Tank* fame, others went to places beyond the Hampton Roads vicinity to attend regional and national conferences and competitions.

- Working to fulfill the 100-hour community service requirement also served as an enrichment activity for the EBA students. The community service can be rendered in a variety of ways – for example, by volunteering to tutor peers or younger students or by serving as a volunteer at a non-profit organization. Its purpose is to encourage EBA students to be civic-minded and service-oriented as well as to provide students with additional opportunities to acquire valuable experiences, accomplishments, and connections.

Objective #5: Long-Term Project/Internship

- According to the proposal, all EBA students will complete a long-term project or internship during their senior year. It is envisioned as on-the-job training that will provide each student an opportunity to identify real-world application of what they learned in school. The experience will culminate with each student developing a presentation for an audience of peers, school staff, and business people from the community.
- Although the project or internship will not formally begin until their senior year, students have already begun to prepare via their classwork, enrichment activities, and choice of strand. Further progress toward meeting this fifth objective will be reviewed as part of the EBA's year-two evaluation.

Objective #6: Collaborative Agreements With Institutions of Higher Education:

- The sixth objective called for the academy to establish collaborative agreements with institutions of higher education that would result in ongoing program development and assessment.
- Discussions regarding dual-enrollment course offerings and credit began among the leaders of the EBA, VBCPS, and TCC. In February 2017, 80 EBA students took the Virginia Placement Test (VPT) and began taking dual enrollment classes on TCC's campus in the summer of 2017.
- During the 2016-2017 school year, all EBA staff members attended a week-long professional learning seminar regarding entrepreneurship and business instruction at Babson College in Wellesley, Massachusetts, which also provided the EBA with a variety of resources.
- Collaboration between the EBA and ODU, especially with the Strome Entrepreneurial Center, has resulted in several opportunities during 2016-2017 for students and staff to attend and participate in lectures, presentations, and other academy-relevant activities.

Stakeholder Perceptions

- Overall satisfaction with the EBA was very high among all stakeholder groups, ranging from 92 percent among students to 97 percent among parents to 100 percent among staff and community partners.
- Nearly all EBA students (97%) indicated their intention to continue in the academy, and all EBA staff members (100%) also indicated their intention to remain with the academy.
- Similarly, all parents (100%) and most students (92%) agreed that they would recommend the academy to others.
- In response to an open-ended survey item asking what is gained from being enrolled in the EBA, the most common response was "Knowledge and skills for work or self-employment." It was provided by 57 percent of the students and 36 percent of the community partners who responded to the survey item. Among parents, the most common response (22%) involved emotional attributes such as greater self-confidence. The most common response among staff involved "soft skills" such as leadership, organization, and critical thinking skills (71%).

- With respect to how the academy might be improved, more than half of the students' suggestions referred to the design and/or the implementation of the academy program (52%). The suggestions often were contradictory, however, with some students saying that classes should be "harder" and "more challenging" while other students suggested that classes should be "easier" and "less stressful."

Additional Cost

- The actual start-up costs for the academy (\$702,515) exceeded the start-up budget included in the proposal approved by the School Board (\$576,498) by \$126,017. While facility renovations did not occur as planned and were rescheduled for the academy until the summer of 2018, seven new buses and drivers were needed to accommodate the out-of-zone transportation needs of the academy.
- The actual year-one operating costs (\$604,235) exceeded the budgeted year-one operating costs (\$464,024) by \$140,211. Much of the excess was attributed to the academy coordinator's salary and benefits during the planning year of 2015-2016.

**Comparison of Budgeted and Actual Start-Up and Year-One Operating Costs for the EBA
(2015-2016 and 2016-2017)**

	One-Time Start-Up	Recurring Operating	Total
Planning Budget	\$576,498	\$464,024	\$1,040,522
Actual Cost	\$702,515	\$604,235	\$1,306,750

Recommendation and Rationale

Recommendation #1: Continue the Entrepreneurship and Business Academy within Kempsville High School without modifications. *(Responsible Groups: Department of Teaching and Learning, Kempsville High School)*

Rationale: Continuing the EBA without modifications is recommended because the operation of the EBA was found to largely correspond with what had been set forth in the proposal approved by the School Board. The academy opened on schedule in September 2016. During its first year of implementation, the academy made progress toward meeting its goal and objectives. It successfully instituted a rigorous and comprehensive program of study for students interested in entrepreneurship and innovation, business information technology, and corporate finance. The program included a combination of required and elective courses, as well as enrichment and community service activities. Its students' academic performance was encouraging, as exemplified by passing grades, successful test scores, and a high number of successful attempts to earn industry-related certifications. In addition, its stakeholders perceived the academy favorably.

Introduction

Background

The Entrepreneurship and Business Academy (EBA) opened as a school-within-a-school at Kempsville High School in September 2016 after the academy was approved by the School Board on October 6, 2015. The academy offers rigorous academic curricula with business-themed concepts integrated into a combination of core courses and specialized electives. Students pursue one of three strands within the program of study: Entrepreneurship and Innovation, Business Information Technology, or Corporate Finance. Through studies within their selected strand, students will be exposed to multiple dual enrollment opportunities along pathways that could enable students to earn their associate's degree in business administration before graduating from high school. All students will complete an intensive internship experience, which will contribute significantly to their being college and career ready when they graduate from Virginia Beach City Public Schools (VBCPS).

The implementation of the academy, which is designed to proceed in phases, began in 2016-2017 with the first class of ninth-grade students. One grade level will be added each year. Complete implementation across grades 9 through 12 will be achieved in 2019-2020 when the EBA expects to serve approximately 500 students.

Purpose

This evaluation provides the School Board, the Superintendent, and academy leadership with information on the year-one implementation of the EBA. School Board Policy 6-26 requires the Department of Planning, Innovation, and Accountability to evaluate new programs for a minimum of two years. In addition, because the EBA will take more than two years to implement fully, the academy will again be evaluated during the year it reaches full implementation (i.e., 2019-2020). The School Board approved the first-year evaluation of the EBA as part of the 2016-2017 program evaluation schedule on September 7, 2016.

In accordance with School Board Regulation 6-24.2, section B2a, the first year evaluation of the EBA focused primarily on how the academy operated during its first year of implementation, especially in relation to the approved proposal, as well as on how participants

perceived its first year of operation. In addition, the evaluation report provides information about student and staff characteristics, progress toward meeting goals and objectives, and the additional cost to the division compared with the proposed academy budget.

Academy Overview

According to the academy proposal approved by the School Board, the EBA was established to offer a comprehensive program to students who are interested in entrepreneurship, business information technology, or corporate finance. The academy was designed to “provide students with opportunities to study, understand, and explore the ever-changing landscape of business fields and the rise in entrepreneurial ventures that exist in today’s workforce.”¹ Some of the EBA’s key features include opportunities for students to do the following:

- Earn Microsoft Office Specialist certification.
- Take specialized courses within their respective strand.
- Earn an associate degree or postsecondary or Advanced Placement credit.
- Participate in job shadowing and mentoring programs that extend, enrich, and refine student learning and that create linkages with the academic and business communities.
- Complete a long-term project and/or senior internship, spending instructional time within a business-related field of their choice.

According to the proposal, the EBA will focus on providing a personalized, globally-competitive curriculum that equips students with the intellectual skills needed to make connections among various disciplines, the technology students need to communicate with a worldwide audience, the problem solving and critical thinking skills necessary to meet the challenges of the future, and the service learning expertise needed in industry today.

One hallmark of the academy noted in the proposal is the three academy strands:

- **Entrepreneurship and Innovation Strand:** Students enrolled in the Entrepreneurship and Innovation strand will take courses focused on design thinking and the Babson College approach to Entrepreneurial Thought and Action®. This strand relies heavily on the use of the Makerspace within the academy.
- **Business Information and Technology Strand:** Students enrolled in the Business Information and

Technology strand will have opportunities to take courses at the Advanced Technology Center. This established partnership increases the number of course offerings for academy students without replicating courses already offered within VBCPS.

- **Corporate Finance Strand:** Students enrolled in the Corporate Finance strand will have multiple opportunities to study within the banking- and finance-related career fields. All students in this strand will take dual enrollment accounting courses, which will assist them in earning their Associate of Science degree from TCC.

Another hallmark of the EBA is the development of a Makerspace to which all students will have access and exposure during their studies within the academy. Through the Makerspace, as well as the associated courses and enrichments surrounding it, students will develop an “entrepreneurial spirit” and discover the importance of creating, producing, and marketing in all industries.

Academy Goals and Objectives

The overall goal of the Entrepreneurship and Business Academy at Kempsville High School as stated in the approved proposal is to “provide students the business skills and knowledge necessary to succeed in any career-related fields of study in postsecondary education and in the workforce.” (p. 8)

Specific academy objectives include the following:

Students will:

1. Successfully complete a sequential program of study that focuses on specific skills, knowledge, and technology in the fields of entrepreneurship and innovation, business information and technology, and corporate finance.
2. Have opportunities to earn an Associate’s degree/postsecondary credit.
3. Exceed the objectives of the VBCPS curricula and Commonwealth of Virginia Standards of Learning tests.
4. Participate in job shadowing, mentoring, and/or internship programs that extend, enrich, and refine student learning and that create linkages between the academic and business communities.
5. Complete a long-term project through an internship/mentorship experience with a culminating presentation in the senior year featuring an in-depth study of an issue of concern to their related industry and present ideas/solutions as

viable options to address the issue to a panel of business and community leaders.

The Academy will:

6. Establish collaborative agreements with institutions of higher education that result in ongoing program development and assessment.

Evaluation Design and Methodology

Evaluation Design

This year-one evaluation focuses on the implementation of the EBA during the 2016-2017 school year, as well as addressing progress toward meeting program goals and objectives. It also addressed the characteristics of the academy stakeholders (students, parents, and staff, as well as community partners), stakeholder perceptions, and the additional cost of the academy to the division. The year-two evaluation and the final evaluation after full implementation will examine continued implementation and the attainment of program goals and objectives. Evaluation questions for this report were derived from a review of School Board policy related to year-one evaluations, the EBA proposal, various academy documents, and discussions with EBA leadership.

Evaluation Questions

The year-one evaluation questions are set forth below.

1. Did implementation of the EBA mirror what was proposed?

- A. To what degree was the proposed timeline followed?
 1. Did building renovation and technology upgrades occur on schedule?
 2. Were students recruited and staff hired on schedule?
- B. What was the student application process?
 1. How was the academy marketed?
 2. What was the student application process and perceptions of the process?
- C. How were students selected?
 1. Who served on the selection committee?
 2. What criteria were used in selecting students?
 3. Why did students apply and enroll?
- D. Did the selection and training of the academy staff mirror the School Board approved process?

1. What was the process and criteria for selecting staff?
2. What professional learning did the staff need and receive?
3. How did staff perceive the professional learning?
- E. Did the program of study mirror the proposal?
 1. What was the academy curriculum and what courses were offered?
 2. What additional enrichment opportunities were provided – e.g., guest speakers, field trips, community service, etc.?
 3. How was the program of study perceived?
- F. What was the academy's transportation plan?
- G. What academic and business partnerships did the EBA establish?

2. What were the characteristics of the EBA participants?

- A. What were the characteristics of the EBA students?
 1. What were students' gender, ethnicity, and other characteristics?
 2. From what middle schools and what high school attendance zones were students drawn?
 3. What was the academic achievement of the EBA students when they were in the eighth grade?
- B. What were the characteristics of the EBA staff?
 1. What were the staff's qualifications?
 2. What were the staff's level of experience?

3. What progress was made toward meeting the academy's goals and objectives?

- A. What progress was made toward completing the program of study?
- B. What progress was made toward earning an Associate's degree/postsecondary credit?
- C. What progress was made toward exceeding the objectives of the VBCPS curriculum and Virginia Standards of Learning?
- D. What progress was made toward developing and providing job shadowing, mentoring, and other enrichment opportunities?
- E. What progress was made toward designing and developing a long-term project for students in their senior year?
- F. What progress was made toward establishing collaborative agreements with institutions of higher education?

4. How was the academy's design and implementation perceived by students, parents, staff, and partners?
5. How did the actual costs of the academy compare with the projected costs specified in the budget section of the proposal?

Instruments and Data Sources

Multiple methods of data collection were used to gather evaluation information from multiple data sources for this year-one evaluation.

EBA Documentation and Program Data

The Department of Planning, Innovation, and Accountability evaluators employed the following data collection methods:

- Examined the EBA Proposal (October 2015) and academy documentation.
- Conducted informational meetings with the academy coordinator and the principal when needed.
- Maintained ongoing communication and periodic correspondence with the academy coordinator.
- Collected implementation-related data from the academy coordinator.
- Collected staff data from the Department of Human Resources.
- Collected student quantitative data from the VBCPS data warehouse for analyzing academy operations, participant characteristics, and progress toward goals and objectives.
- Collected data on students' academic performance in courses and on the Standards of Learning tests.
- Administered perception surveys to academy students, parents, staff, and community partners.

VBCPS Warehouse Data

Some of the student-related quantitative data needed for the year-one evaluation were extracted from the VBCPS data warehouse. These 2015-2016 and 2016-2017 data mainly concerned demographic characteristics, attendance, discipline, and academic outcomes. The data for participating academy students were compared with corresponding data for other Kempsville High School students in grade 9 for the purpose of providing interpretive context.

The remainder of the quantitative data and much of the qualitative data needed for the evaluation were collected through surveys.

Surveys

Several EBA participant groups were invited to complete an anonymous survey regarding their perceptions of, experiences with, and feelings toward the EBA. In total, four different survey forms were developed – one for each participant group:

- Academy staff (teachers and the school counselor)
- EBA students
- The parents/guardians of EBA students
- Community partners

The participant surveys consisted mainly of Likert-type items that focused on perceptions of program operations and year-one program outcomes. In almost all cases, these selected-response items were constructed on a four-point scale: (1) Strongly Disagree, (2) Disagree, (3) Agree, and (4) Strongly Agree. Whenever possible, comparable versions of survey items were included on all or nearly all survey versions. This enabled variations in the perceptions of different participant groups to be analyzed. Further, all surveys also included open-ended questions regarding what students gained and possible improvements to the academy. Responses to the open-ended questions served as a major source of the qualitative data used in this evaluation.

The surveys for all participants were conducted online between May 1 and May 12, 2017 when 102 students were enrolled in the academy. Table 1 provides the response rates for each survey.

Table 1: EBA Survey Response Rates

Participant Group	Surveys Issued	Surveys Returned	Response Rate (%)
Students	102	102	100%
Staff	7	7	100%
Parents/Guardians	147	37	25%
Community Partners	51	11	22%

Data Analysis

Demographic, behavioral, and academic data for both EBA students and the rest of the KHS grade 9 students were extracted from the VBCPS data warehouse. These data included key demographics such as gender and race.

The demographic data were based on EBA and non-EBA enrollment on September 30, 2016. Outcome data such as course grades, grade averages, and assessment results, as well as attendance and discipline data, were based on end-of-year enrollments in June 2017. As a consequence of attrition, the numbers of students (n) changed over the course of the year, as set forth in Table 2 below.

Table 2: Numbers of Students (n) Eligible for Inclusion in Different Data Analyses

Student Group	Demographics (9/30/2016)	Outcomes (6/16/2017)
EBA	108	101
Non-EBA	348	363
Total	456	464

The enrollment figures in Table 2 served as denominators when computing the percentages reported for a particular comparison or analysis of demographic or outcome data between the EBA and non-EBA students.

Quantitative

The academic achievement (grades and test scores) as well as the behaviors (attendance and discipline referrals) of the EBA students and their non-EBA grade 9 counterparts who attended Kempsville High School were compared. These direct comparisons of academy and non-academy student data were not based on matched comparisons. Instead, analysis of covariance was used when possible to adjust current 2016-2017 SOL group-level results by prior 2015-2016 SOL group-level results to ensure that comparisons reflected the same starting point. That is, controlling for prior test scores enabled differences in the more recent test performance to be measured more accurately. Nonetheless, without student-level matched comparisons, between-group differences should still be interpreted with caution. Differences, whether positive or negative, should not automatically be viewed as effects that the academy caused.

To facilitate interpretation of survey results from the Likert-type survey items, agreement rates were computed by combining the percentage of respondents who selected either Agree or Strongly Agree. Survey agreement percentages reported in the evaluation are based on those who answered the survey item (i.e., missing responses were excluded from the percentages).

Qualitative

Where practicable, open-ended survey responses were coded into thematic categories for qualitative analysis, as well as considered for possible verbatim inclusion in this

report. When this occurred, all efforts were made to excerpt typical statements that represented all important perspectives and ideas.

It should be noted that when an open-ended response expressed more than one relevant thought or idea, the idea was counted in each of the categories to which it related. Consequently, the number of responses sometimes exceeded the number of respondents. That is, when writing a reply to a single open-ended survey item, 100 student respondents might have expressed, for instance, 140 separate ideas.

Evaluation Results and Discussion

This section of the year-one evaluation describes the implementation of the EBA. More specifically, it addresses the year-one evaluation question associated with the academy's operational components, the participants' characteristics, progress toward meeting goals and objectives, the participants' general perceptions of the academy during its first year of operation, and the additional cost.

Operational Components

The first evaluation question was "Did implementation of the EBA mirror what was proposed?"

Implementation

The implementation of the EBA encompasses several components of the academy's operation. Each will be addressed in turn.

Timeline: A timeline of the EBA's implementation was included in the School Board approved proposal. The timeline spanned a period that extended from the development of the academy proposal in the summer of 2015 to the full implementation of the academy in the fall of 2019. It included milestone dates. Those activities and milestone dates are reproduced in Table 3. An additional column has been added to indicate the status of each activity.

Table 3: Timeline of EBA Implementation With Status

Activity	Date	Status
Appoint Academy Coordinator	Summer 2015	✓
Present proposal to the School Board	September 15, 2015	✓
Introduce and collect feedback at Academy Night	October 22, 2015	✓
Request budget approval	November 2015	✓
Applications for freshmen due	January 2016	✓
Open with 125 students from the class of 2020	Fall 2016	X
Incubator/Makerspace opens	Fall 2016	X
Sophomores and freshmen (enrollment of 250 total)	Fall 2017	n/a
Juniors, sophomores, and freshmen (enrollment of 375 total)	Fall 2018	n/a
Fully enrolled at 500 students	Fall 2019	n/a

To attain the milestones displayed in Table 3, several interim tasks were accomplished. The academy proposal was prepared and submitted to appropriate VBCPS division personnel, including the School Board. After the proposal's approval, staff were hired and provided professional learning. A marketing plan was designed and implemented. Curriculum and instructional resources were designed and developed. Students were selected from a pool of applicants to enroll in the academy. Staff members were selected to teach at the academy. A transportation plan was developed. A schedule of classes for incoming academy students was finalized, including dual enrollment and Advanced Placement courses for postsecondary credit. Plans and arrangements for a variety of enrichment activities were undertaken. All of these tasks were completed with sufficient speed and success to enable the academy to open on time. Nonetheless, additional progress on many of these tasks continued to be made throughout the 2016-2017 school year.

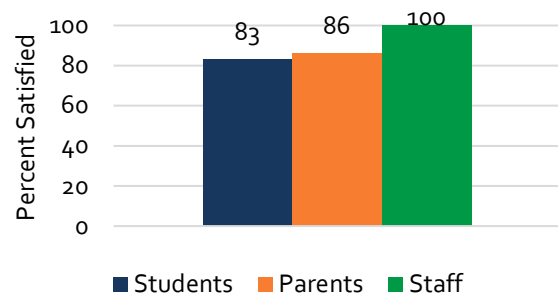
Two milestones set forth in the proposal were not met precisely. First, rather than opening with 125 freshmen, the EBA opened in September 2016 with 108 students. Of 265 applications, 118 students (45%) were accepted for admission. Of these 118 accepted students, 108 students (92%) actually were enrolled in the EBA at the start of the school year. By the end of the school year, academy enrollment stood at 101 students, a withdrawal rate of about 6 percent.

Second, the EBA proposal approved by the School Board had called for construction of the Makerspace and renovation of other learning and work spaces to occur during the summers of 2017 and 2018. Such a two-phase plan, however, would have left several

classrooms unusable in the interim. Therefore, so that classrooms, hallways, and other work spaces could continue to be utilized during the 2017-2018 school year, it was decided to perform the major renovations at one time during the summer of 2018. During 2016-2017, the academy space consisted of two classrooms and a temporary Makerspace lab with a laser-cutter, 3D-printer, and other equipment.

Despite the delayed renovations, the vast majority of academy stakeholders expressed satisfaction with the EBA facilities, as indicated by Figure 1.

Figure 1: Stakeholders' Satisfaction With EBA Facilities



Infrastructure: The EBA proposal approved by the School Board stated that academy courses would be offered primarily on the north side of the 300 wing of Kempsville High School and that some Business classes would remain in the 800 wing. In addition, to provide a learning environment that would be conducive to EBA studies and activities, the following improvements to the school facility were recommended and approved:²

- **Makerspace:** One hallmark of the academy will be a Makerspace, which will be constructed in the current 300 hall space. A Makerspace refers to a collaborative learning place where members of a community gather to share materials, tools, ideas, and expertise for purposes of pursuing personalized, creative entrepreneurial and prototyping endeavors. When completed in the summer of 2018, the EBA's Makerspace will be student-run and open for the Virginia Beach community to utilize the resources outside of school hours. During 2016-2017, a makeshift Makerspace with laser cutters and a 3-D printer was temporarily established and utilized.
- **Instructional Classrooms:** The academy will have six to eight classroom spaces that feature flexible furniture that allow for collaboration to occur naturally and regularly within the instructional setting. Two to three classrooms will be designed specifically for the academy. They will be outfitted

with projectors, whiteboards, and the ability to interconnect laptops through the design of the furnishings. Additional classrooms and computer labs already existing within Kempsville High School will also be utilized.

- **Presentation/Seminar Space:** Presentation skills are a critical component to successfully opening and operating a business. This large, open meeting space is designed to enhance presentation opportunities for students. This space will have projector capability, as well as moveable chairs, podium, and furniture. It has been designed for acoustical excellence.
- **Hallway as a Learning Space:** The hallway along the 300 wing of the building will be reconstructed to replace the existing lockers with benches and charging stations for laptops and other digital devices. In addition, whiteboards will line the hallway, creating additional learning spaces outside of the classroom with rolling chairs to accommodate student collaborative meetings. The hallway will also have a large set of bookshelves to provide a business library filled with textbooks and periodicals that students will share and utilize for projects and research.
- **Conference Room:** The academy will house its own conference space designed for students to hold their own business or team meetings and presentations. This space also provides the academy staff a professional venue to meet with business and organization partners.
- **Office and Storage Space:** The academy facilities will house two offices for the academy coordinator and guidance counselor in addition to storage space for academy-related materials and resources.

As stated previously, much of the renovation approved for the EBA was originally scheduled to proceed in two phases during the summer of 2017 and the summer of 2018. However, all the work has been postponed until the summer of 2018. As a consequence, the EBA operated during its first year of operation with two EBA classrooms and an improvised Makerspace.

It also is important to note that the EBA benefited from Kempsville High School being one of the Digital Learning Anchor Schools. First, all EBA staff and students received a Dell laptop, enabling the academy to spend money on things other than 1:1 technology, such as the Makerspace. Second, it aligned with the EBA's "cutting edge" culture and self-concept. Third, it helped EBA staff to "buy into" various facets of transformational learning, such as student independence, personalization, and agency.

Transportation: The EBA did not have its own student transportation or staff travel budget during 2016-2017. Instead, transportation and travel for the academy were part of KHS's budget. Transportation did not pose any serious issues last year. When the attendance rates for EBA from students outside and within the KHS attendance zone were compared, no statistically significant differences were found. In fact, they differed by less than 1 and two-tenths percent (96.2% to 97.4%). Students were able to commute to and from KHS with no serious difficulty or inconvenience, except that some students had to walk a bit farther to reach an appropriate bus stop than they otherwise would. Based on concerns expressed to the academy coordinator, this was more an issue of parents than of the students themselves. However, in response to a survey statement that "Bus transportation allows full participation in the EBA program," the parental agreement rate of 95 percent was higher than the student agreement rate of 81 percent.

Field trips were not a problem, either. The principal of KHS assigned buses for academy-wide trips. But since many of the field trips during 2016-2017 were class-specific, two white vans were adequate for transporting approximately 20 students to and from a field trip destination.

Program of Studies

The EBA comprises three major strands: Entrepreneurship and Innovation (Strand 1), Business Information Technology (Strand 2), and Corporate Finance (Strand 3). All three strands enable students within the academy to explore multiple pathways to being college and career ready. That is, the program of study was intended to enable EBA graduates to be ready for postsecondary education or to enter the workforce or the military. Students who successfully complete the prescribed load of required and elective courses will graduate with an Advanced Diploma.

The EBA was designed with personalized learning in mind. Through partnerships with postsecondary institutions, the Advanced Technology Center, and both local and national business organizations, EBA students are exposed to a variety of learning opportunities. Students are encouraged to make full use of the academy's offerings and resources to meet their individual learning needs and interests. This includes availing themselves of online learning opportunities to truly maximize the personalized learning approach.

The EBA students take not only core curriculum courses regardless of their strand but also courses specific to the strand they select. The courses within the strands are immersive, experiential opportunities that serve as a foundation for a multitude of elective options. This enables the students to map out a course of study based on their own personal interests and career goals. The suggested course loads for each strand are set forth in Tables 1, 2, and 3 in Appendix A.

During their senior year, all students will complete an internship in their selected field of study with a community leader/business partner. During this period of time, students will be required to keep a log of their internship hours and a blog/journal of their experiences in the field. The internship experience will be shared through a multimedia presentation with their classmates, parents, and community leaders/business partners through an in-depth research-based senior project involving a challenge or issue and a proposed solution to this challenge.

Strand Selection: Each strand within the academy offers required and elective course options for students. However, EBA students selected their strand only toward the end of their freshmen year. This allowed them time to take a course entitled Introduction to Entrepreneurship and Business Information Technology, which introduced all three strands to students so that they could make an informed decision when they selected a strand for grades 10, 11, and 12. Table 4 displays the number of students who chose each strand.

Table 4: Results of Strand Selection

Strand	Number Selected	Percent
Entrepreneurship & Innovation	58	57%
Business Information Technology	23	23%
Corporate Finance	20	20%
Total	101	100%

Also during ninth grade, EBA students took two semester-long academy classes: Critical Issues in Business Seminar and Idea Generation and Creative Problem Solving. Of course, students took other classes, as well. Some courses, such as Academy Honors English 9, were attended only by EBA students. Other courses, such as AP Human Geography, were also open to non-EBA students.

Dual Enrollment and Advanced Placement Credit:

Students enrolled in the academy will be provided opportunities to take Advanced Placement (AP) courses, college-level examination program courses, American Council on Education (ACE) credit courses, dual enrollment courses, and industry certification tests that articulate credit toward an Associate of Science Degree with TCC and other postsecondary education partners. The vast majority of the dual enrollment and AP classes are intended for sophomores, juniors, and seniors.

In 2016-2017, no dual enrollment classes were available to EBA students, and only one AP course, AP Human Geography, was available. Of the 108 EBA students in September, 56 students (52%) took the course. By comparison, 17 of the 363 (5%) non-EBA freshmen took the course. While some EBA students began taking dual enrollment courses at TCC this past summer, the others will begin taking their first dual enrollment course this fall at KHS.

Examples of the dual enrollment that will be offered to EBA students during their enrollment in the academy include Dual Enrollment Introduction to Project Management, Dual Enrollment Business Analytics, and Dual Enrollment Business Management and Leadership. A full list of dual enrollment and AP options and a list of additional courses required for an Associate of Science Degree are provided in Table 1 and Table 2 of Appendix B.

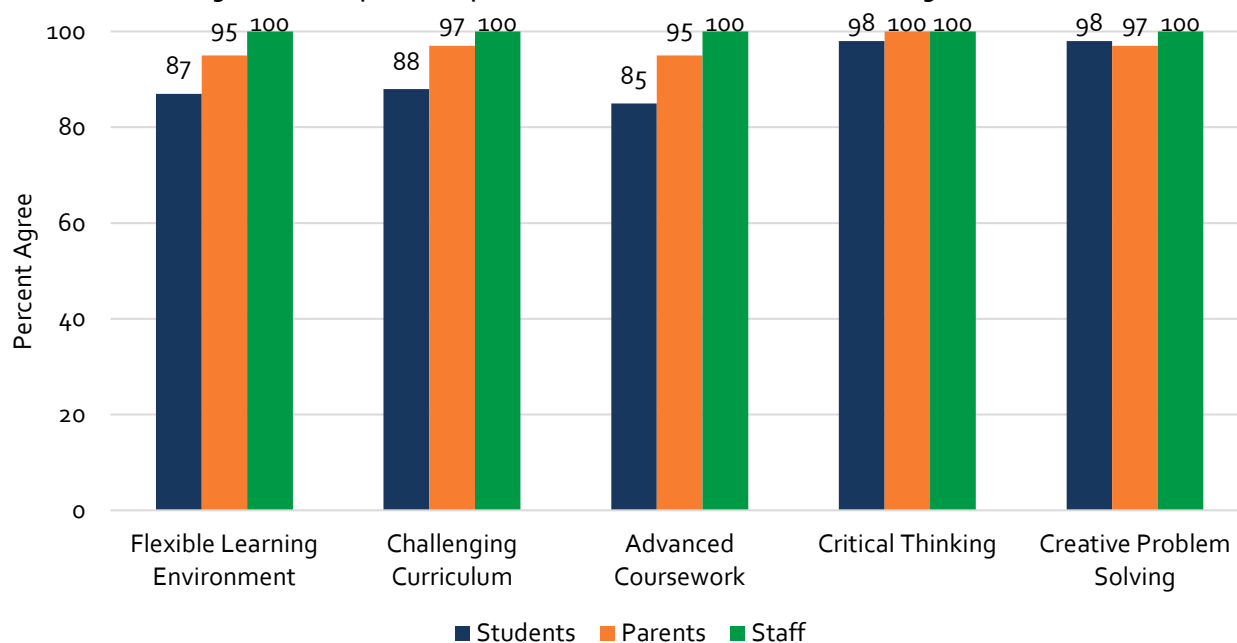
Industry Certifications: Students within the academy will be expected to complete the VBCPS Technical and Career Education stackable credential model in which students complete the Workplace Readiness Skills for the Commonwealth assessment, the Microsoft IT Academy Specialist certification, and strand-specific certifications that lead students to become both career and college ready when they graduate from high school. Examples of additional industry certifications that students can receive through their enrollment in the academy are listed in Appendix C.

During 2016-2017, all 101 EBA students had attempted by the end of the year to earn 225 certifications after taking corresponding EBA classes or EBA-approved online courses. In terms of students rather than attempts, all EBA students (100%) took at least two different Microsoft Office Specialist (MOS) certification tests. Twelve students took three tests and two students took four tests. By comparison, 17 of the 363 non-EBA freshmen at KHS (5%) attempted to pass at least one certification test.

EBA Coursework and Learning Environment: A set of survey questions focused on the EBA's coursework and learning environment. The same five questions were included on the student, parent, and staff versions of the survey. The results are displayed in Figure 2.

Generally, all three groups exhibited high rates of favorability (85% agreement or above) regarding the EBA's coursework and learning environment. The greatest consensus among the three groups involved their almost unanimous agreement that the EBA coursework requires students to think critically and to solve problems in a creative manner.

Figure 2: Participant Perceptions of the EBA's Coursework and Learning Environment



In summary, a review of academic requirements and course descriptions, overall and by EBA strand, confirmed that the academy's program of study adhered to the curriculum set forth in the proposal approved by the School Board.

Community Partners: Academy partners fell into two broad categories: academic institutions and businesses. Each will be discussed in turn.

Academic Institutions: The leadership of the EBA entered into collaborative partnerships and agreements with a variety of postsecondary institutions, including Babson College in Wellesley, Massachusetts, as well as locally with TCC and ODU.

More specifically, EBA leadership has entered into agreements with Babson College and with ODU to provide professional learning to EBA staff and to provide curricula for the Entrepreneurship and Innovation strand. In addition, VBCPS leadership entered into an agreement with TCC for EBA students to earn dual-enrollment credit toward an Associate of Science degree in business, technology, or finance.

These arrangements indicate that the EBA leaders are developing collaborative partnerships and agreements in accordance with academy objectives approved by the School Board: Objective 2, which states that students will have opportunities to earn an associate's degree and postsecondary credit; Objective 3, which states that students will exceed the objectives of the VBCPS curricula; and Objective 6, which states that the

academy will establish collaborative agreements with institutions of higher education.

Business Partners: The EBA leadership has also successfully solicited support and partnership from nearly 40 local and national businesses, a current list of which is provided in Appendix D. Such partnerships were intended to provide students with opportunities for increased career awareness, exploration, and experience. As enrichment, they have helped to establish meaningful connections between the book learning that students acquire in school and its application beyond the classroom. In addition, they serve as a pool from which members of the Academy Advisory Council will be identified during the 2017-2018 school year.

Academy Advisory Council: According to the EBA proposal, the Academy Advisory Council will provide academy leadership with input regarding the development and progress of the EBA, starting in the fall of 2017. The council will be populated by business, postsecondary, and municipal leaders, as well as by students, parents, teachers, administrators, and academic and business partners. Some members will volunteer, and others will be invited. One of the council's first tasks will involve reviewing and advising academy leaders on the design of the internship and the long-term project.

Enrichment Activities: The EBA experience involves more than taking required and elective courses. It also includes a variety of academy-related enrichment activities. One of most important is job shadowing. It was deliberately set to commence after the EBA students had selected their strand and completed their year-one coursework. During the 2016-2017 school year, EBA leadership developed relationships with a wide variety of businesses and professionals who might be willing to host job shadowing experiences for EBA students. Many of these relationships emerged from encounters during 2016-2017 enrichment activities, such as guest speakers, field trips, and community service opportunities.

Guest Speakers: During year-one, at least one guest spoke at the EBA each week. Often, there were two or even three guest speakers during the same week. Many of these guest speakers taught a Master Class during which they made a presentation about their work and met with students to answer questions about their work and their experiences during their career.

The guest speakers and Master Class instructors were not only numerous but also varied in style, with the more popular ones tending to be those whose presentations were more interactive. They also were varied in their focus and content. Some guest speakers were academic, in nature – for example, an admissions officer from ODU who discussed college enrollment and the application process. Some had a municipal background, such as the librarian who provided information regarding business and entrepreneurship-related services and resources that EBA students could use for free merely for being a Virginia Beach resident. Another notable municipal speaker was the representative from the Virginia Beach Department of Economic Development who provided EBA students with an overview of the kinds of businesses the city is seeking. Other speakers were technology-based – for instance, the engineer who had developed the app for obtaining Amtrak travel information. Still others provided insights into entrepreneurial endeavors, such as procuring government contracts. On another occasion, a Chick-Fil-A manager spoke about the job application and interview process.

Such guest speakers provided not only useful information but also opportunities for students to make useful connections that could lead to mentoring, interning, obtaining financing for entrepreneurial projects, or securing future employment.

Field Trips: Another type of enrichment activity that the EBA provided during 2016-2017 involved several field trips. One of the most notable was a trip to the Norfolk Forum to attend a Barbara Corcoran (Shark Tank) lecture and meet-n-greet. There also were field trips to see small-business owners at ODU's Strome Entrepreneurship Center. Two in particular were especially popular. One involved a quartet of entrepreneurs who combine toy manufacturing and social responsibility. The other involved an event at which EBA students listened and met with Adam Braun, founder of Pencils for Progress, which is a nonprofit organization that starts schools in underdeveloped areas all around the world.

But the field trips were not limited to attending lectures. Other field trips included attending Makerspace and similar competitions in which EBA students competed.

Community Service: A third type of EBA enrichment involves community service in acknowledgment of the EBA leadership's recognition that being socially responsible, civic minded, and service-oriented is important. Thus, to graduate from the academy, EBA students are required to accrue at least 100 hours of community service during the course of their enrollment. Depending on individual circumstances, a student might accomplish this, for instance, in just one summer, in increments of 25 hours per year for four years or in any other acceptable way that met their individual circumstances and needs.

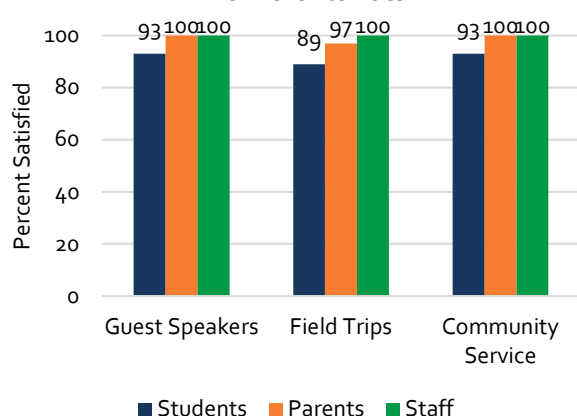
The community service can be rendered in many different ways. For example, a student may engage in peer tutoring or in tutoring younger students in elementary or middle school. A student may serve on the mayor's Youth Task Force. A student may volunteer with a nonprofit organization, provide free babysitting for nonrelatives, or volunteer at the Virginia Aquarium.

Ultimately, fulfilling the community service requirement is intended to encourage students to be civic-minded and service-oriented while acquiring valuable experiences, accomplishments, and connections.

Perceptions: Figure 3 displays the percent of stakeholder groups – students, parents, and staff - that were satisfied with three of the more prominent enrichment activities that the EBA provided. As can be seen, the percentages of satisfied stakeholders were high. Nearly all of the parents and EBA staff who responded to the survey items indicated that they were either satisfied or very satisfied with the guest speakers, field trips, and community service. At least 89 percent of

the students also indicated that they were satisfied with the three enrichment activities.

Figure 3: Percent of Stakeholders Satisfied With EBA Enrichment Activities



Participant Selection

An important component of implementing the EBA involved selecting staff and students as well as community partners from both the academic and business sectors.

Academy Marketing: In collaboration with the Department of Media and Communications and the Department of Teaching and Learning, the KHS and EBA leadership developed the marketing plan described in the academy proposal. In accordance with the approved plan, various methods were used to market the academy to prospective EBA students who were in grade 8 at the time. A brochure that highlighted the academy’s purpose, program of study, and the mission statement was designed and printed. This brochure was used as a marketing tool to disseminate information about the EBA at middle schools and information nights. Additionally, multiple articles ran throughout the year in *The Virginian Pilot*. The EBA website contains documents such as frequently asked questions, enrollment forms, contact information, and press releases. Academy leadership also promoted the EBA on Twitter, Facebook, and other social media. Also, a public information session was held at KHS for parents and students on December 21, 2015.

Student Application and Selection: While still in eighth grade, students applied for admission to the EBA using the standard VBCPS academy program application process and timeline. Specific essay questions formulated around the academy’s theme of entrepreneurship, business information technology, and corporate finance were included. The essay responses

helped to identify candidates with a passion for and interest in the fields of study. Additional evaluative criteria included the following:

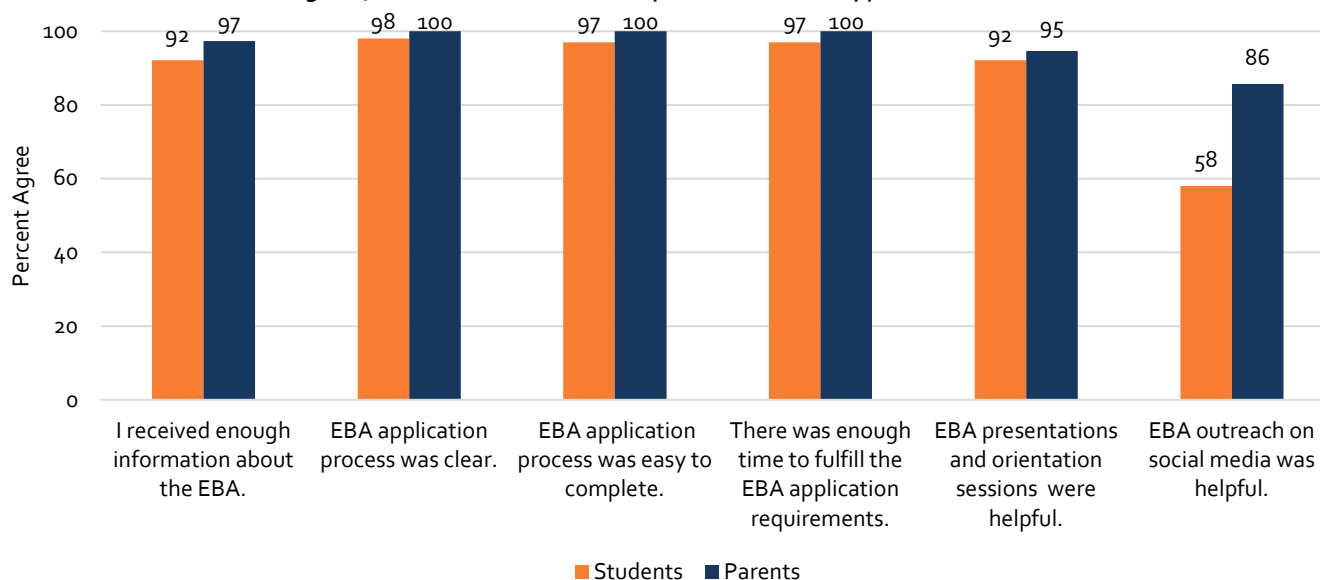
- Academic achievement, including grades and SOL test scores
- Positive teacher recommendations
- Parent recommendations
- Good attendance and school record

A selection committee of school administrators, teachers, and other professionals independently reviewed each of the 265 applications received, rating each one on the same 1-5 numerical scale used by all other VBCPS academies. The accuracy and inter-rater concurrence were monitored carefully. If a discrepancy among reviewers was noted, the application was held for additional review and discussion. Ultimately, 226 students (85%) received letters offering admission. Another 76 applicants were placed on a waiting list. Of the students offered admission, 118 students accepted the offer that they received, which was 94 percent of the 125 student capacity in the EBA proposal. Of the accepted students, 108 students (92%) were enrolled when the EBA opened in September, 2016. Of the 108 September enrollees, 101 students (94%) remained in the academy at the end of the 2016-2017 school year.

According to the academy proposal, 125 students were to attend the EBA as freshmen. To address the under-enrollment, an additional 18 students recently joined the first cohort as sophomores at the start of the 2017-2018 school year. In addition, a second cohort of 120 students was accepted into the EBA as freshmen for the academy’s second year.

Students and parents from the EBA’s first cohort of students were asked about their perceptions of the application and selection process on the end-of-year surveys. Figure 4 displays the agreement percentages (those who either agreed or strongly agreed) of students and parents with several statements regarding the enrollment process.

Figure 4: Parent and Student Perceptions of the EBA Application Process



High percentages of both parents and students agreed that they had received enough information about the academy to make a fully informed decision about enrolling in the EBA, as well as that the application process was clear and also easy to complete. Similarly, high percentages of parents and students agreed that they had been given enough time to fulfill the application requirements. Slightly lower percentages of parents and students felt that the EBA presentations and orientation sessions had helped them to understand the EBA program. A lower percentage of parents (86%) and especially of students (57%) agreed that the EBA outreach on social media had helped them to understand the EBA program. The reasons for the low student agreement are unclear.

Furthermore, 100 percent of the EBA staff members agreed on the EBA staff survey that the admissions process succeeded in enrolling promising EBA students and that the EBA students and parents demonstrated an awareness of the program's expectations.

Reasons for Enrolling: An open-ended survey item asked students and parents to provide their reasons for enrolling in the EBA. Among the 100 students who responded to the item, the most common reason for enrolling in the academy involved a professional aspiration – mainly, to improve career options, to be one's own boss, or to become wealthy. More than three of every four students (76%) cited such a reason. The second most common reason involved an academic aspiration – mainly, to improve college opportunities or to earn an Associate's degree before leaving high school. This was cited by 14 percent of the student respondents.

To a lesser extent, 2 percent of the students indicated a desire to attend KHS, and 2 students stated that they enrolled in response to parental advice or pressure.

Of the 33 parent responses to a similarly worded open-ended survey item, 15 parents (45%) explained that they had enrolled their children in the EBA because of their child's interest in business. Another 14 parents (42%) cited academic reasons, such as the academy's challenging curriculum, the academy's ability to prepare the student for college and possibly for business school, and the opportunity for their child to earn an associate's degree while still in high school. Eight parents (24%) cited a variety of other reasons: the staff had done an excellent job of presenting the academy during the divisionwide Information Night at the Convention Center; the EBA was the academy that most interested their child; and the child had been the one who decided to attend.

In addition, 97 percent of the student respondents, as well as 97 percent of the parent respondents, agreed that their responsibilities of being a part of the EBA were clear. Relatedly, all EBA staff members (100%) agreed that academy student and parents demonstrated an awareness of the program's expectations.

Staff Recruitment and Selection: The academy coordinator's position was a 12-month position. Hired in August 2015, the coordinator, who most recently had served as an assistant principal at a VBCPS middle school, was responsible for writing grants, visiting Virginia colleges and universities to plan seminars, securing guaranteed admissions to undergraduate and

graduate programs, and meeting with parents and students at all Virginia Beach middle schools to publicize the program. In addition, the coordinator oversaw the process of writing curricula and reviewing and selecting textbooks for the proposed courses, as well as the purchasing of state-of-the-art technology equipment. The coordinator also determined the academy's staffing needs and interviewed teachers for available positions. In addition, the coordinator solicited community members to create an endowment fund for deserving Entrepreneurship and Business Academy at Kempsville High School EBA graduates. During the second half of the 2015-2016 school year, the coordinator oversaw the selection of students, created a waiting list, planned staff development activities, collaborated with Transportation Services, and completed curriculum development.

Starting in 2016-2017, staffing for the EBA would involve the addition of one teacher per year to offer specialized courses. A total of four academy teachers will be added over the four-year period between initial staffing for 2016-2017 and full implementation for 2019-2020.

Teacher candidates applied for an academy position using the division's standard application process, followed by a full interview process with the coordinator, school principal, and two staff members in the Office of Technical and Career Education (TCE). The staff selection for the EBA was based on the following qualifications:

- Candidates with a Master's Degree preferred
- Excellence in teaching and the delivery of instruction.
- Endorsements in the fields of study.
- Interest in professional learning for the integration of business, entrepreneurship, information technology, and core subjects.
- Varied professional work experiences in the field.
- Strong technology skills.
- The ability to work flexibly with institutions of higher learning and community business leaders.

The staff were selected by the KHS principal, the academy coordinator, and the two TCE staff members based on the criteria and qualifications set forth above, as well as their enthusiasm. Subsequent evaluation of the hired EBA faculty was conducted collaboratively by the KHS principal and the academy coordinator.

All EBA staff (100%) agreed with a statement on the survey that the responsibilities of being an EBA teacher were clear.

Professional Learning: According to the approved proposal, professional learning would be based on the needs of the selected staff. Teachers who teach the business, entrepreneurship, and information technology courses would attend professional learning opportunities either on-site or at arranged sites for their particular course area. Teachers would also have an opportunity to gain professional learning by attending national conferences and training with national consultants. Professional learning would include a special emphasis on AVID strategies and globally competitive skills, such as critical thinking. Additionally, all academy teachers after appropriate professional learning would be expected to integrate technology throughout the curriculum. Professional learning classes were designed to meet the specific needs of the academy. The professional learning process would continue to be an ongoing effort as the EBA develops over the next four years. The principal, the coordinator, the Department of Teaching and Learning, and the EBA staff collaborated to construct each year's professional learning calendar.

As an integral part of planning professional learning for the staff during 2016-2017, the coordinator and academy teachers established desired outcomes for all professional learning activities. Implementation of the professional learning was evaluated through follow-up surveys and observation by the EBA coordinator and the KHS principal.

During 2016-2017, professional learning activities for EBA staff included a week-long, intensive seminar at Babson College in Wellesley, Massachusetts that focused on teaching entrepreneurial leadership skills to high school students. The EBA teachers also attended training in California on Makerspaces over the summer of 2016, and the entire staff attended the annual conference of the Virginia Association of Supervision of Curriculum Development (VAASCD) in December 2016. The entire staff also meets monthly as a professional learning community. When needed, specific professional learning sessions are arranged – for example, to learn Apple's Swift coding language for designing smart-phone applications.

At the end of each of these sessions, attendees were asked to complete a course evaluation by utilizing a course evaluation form. In general, the feedback from these forms indicated that the staff appreciated the

instruction. They felt that the professional learning would help them improve student achievement and that they would be able to use what they had learned in their instructional practice.

On their end-of-year survey, staff were asked to rate their perceptions on several questions pertaining to their professional learning. As can be seen in Table 5, every respondent indicated that they had received sufficient professional learning. All seven respondents (100%) also indicated that the professional learning enhanced their ability to integrate academy content into the curriculum and helped them to meet their students' needs. Further, all seven respondents indicated that the professional learning they received helped prepare them to teach academy courses.

Table 5: EBA Staff Perceptions of Professional Learning

Survey Statement	Percent Agreement (n=7)
Professional learning helped prepare me to teach academy courses.	100%
Professional learning enhanced my ability to integrate EBA-related units/ideas in the curriculum.	100%
Professional learning enabled me to better meet the academy students' needs.	100%
I received sufficient academy-related professional learning.	100%
The academy-related professional learning was sufficient in breadth.	100%
The academy-related professional learning was sufficient in depth.	100%
I received academy-related professional learning in a timely manner.	100%

Characteristics of Participants

The second evaluation question asked, "What were the characteristics of the EBA participants?"

This section of the evaluation report answers that question by providing information regarding the characteristics of EBA students, staff, and academy partners.

Student Characteristics

On September 30, 2016, a total of 456 students were enrolled in the ninth grade at KHS. Of these students, 108 were students in the EBA when it began its first year of operation.

Student Demographics: Table 6 shows the demographic characteristics of both the 108 EBA students and the 348 other KHS students in the ninth grade. The table also provides the demographics of the entire ninth grade in VBCPS, including KHS. The data indicate similar percentages with respect to gender. The racial/ethnic composition of the academy approximates that of the rest of KHS ninth grade, as well as the division overall. The exceptions are that the academy has a somewhat higher percentage of Caucasian students and a somewhat lower percentage of Hispanic students than KHS and the division as a whole.

Table 6: Demographic Characteristics of EBA and Non-EBA Students Enrolled at KHS on September 30, 2016

Characteristic	EBA (N=108)		Non-EBA (N=348)		Division (N=5,447)	
	N	%	N	%	N	%
Gender						
Female	56	52%	173	50%	2,623	48%
Male	52	48%	175	50%	2,824	52%
Ethnicity						
African American	26	24%	88	25%	1,383	25%
American Indian	0	0%	0	0%	8	0%
Asian/Native Hawaiian/Pacific Islander	3	3%	11	3%	373	7%
Caucasian	61	56%	171	49%	2,725	50%
Hispanic	6	6%	46	13%	532	10%
Multiracial	12	11%	32	9%	426	8%
Economically Disadvantaged						
Yes (Free/Reduced Lunch)	33	31%	148	43%	2037	37%
Identified Special Education						
Yes	1	1%	36	10%	578	11%
Identified Limited English Proficiency						
Yes	0	0%	6	2%	73	1%
Identified Gifted*						
Yes	28	26%	31	9%	855	16%
Military Connected						
Yes	16	15%	47	13%	662	12%

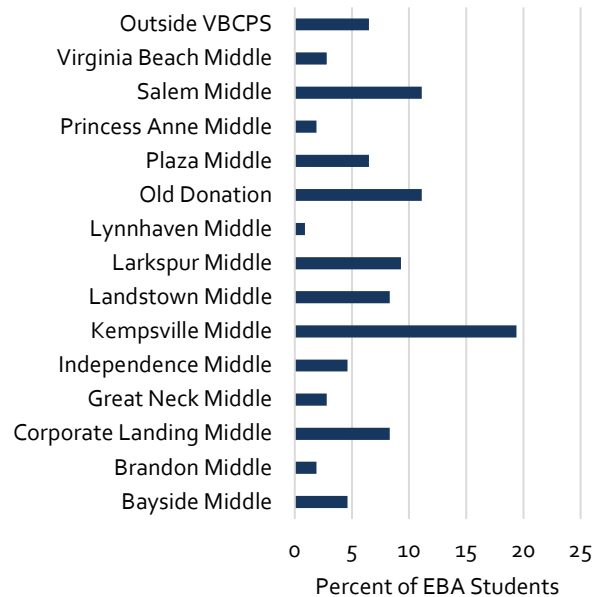
Note. Percentages may not add up to 100 percent due to rounding.

*Includes artistically and intellectually gifted students.

With respect to the other demographic characteristics provided in Table 6, the academy had significantly smaller percentages of economically disadvantaged students (-12%), special education (-9%), and limited English proficient students (-2%) than did the rest of the KHS ninth grade. In contrast, the EBA also had a significantly greater percentage of gifted students (+17%) than did the rest of the ninth grade at KHS.

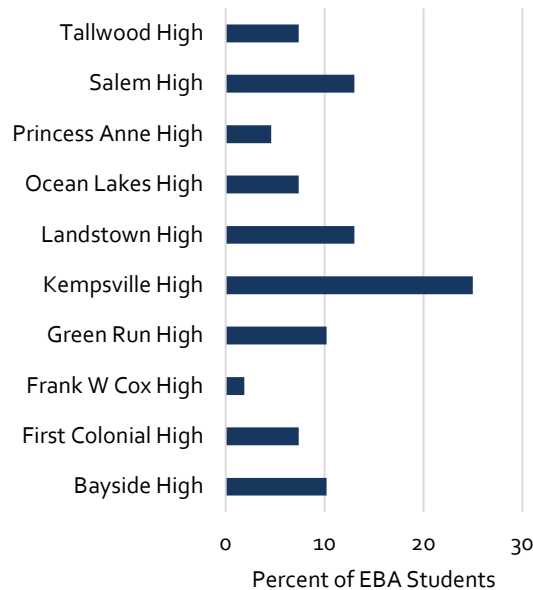
Student Geographics: Similar to findings from previous VBCPS academy evaluations, the greatest number of students at the academy came from the home high school's attendance zone. Figure 5 shows that a total of 31 EBA students (29%) had attended either Kempsville or Larkspur middle schools, which are the two middle schools in the KHS attendance zone. Kempsville Middle School had 21 of the students (19%) and Larkspur had 10 students (9%). The figure also shows that 12 students (11%) had attended Salem Middle School while another 12 students (11%) had attended Old Donation School. The remaining 53 students (49%) had attended another VBCPS middle school or came from outside the division. In total, the EBA enrollment process drew from every middle school in VBCPS.

Figure 5: Home Middle Schools for EBA Ninth-Grade Students



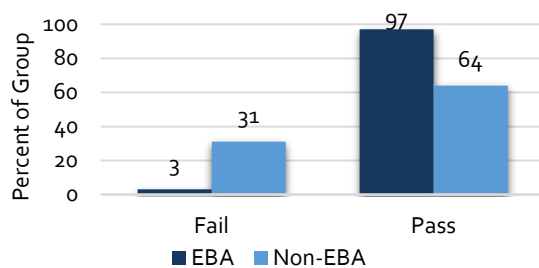
In turn, Figure 6 displays the 2016-2017 high school attendance zones from which the EBA students were drawn. One-quarter of the EBA students (25%) resided within the KHS attendance zone. Just four other high school attendance zones accounted for another 46 percent of the EBA enrollees - Bayside (10%), Green Run (10%), Landstown (13%), and Salem (13%). Ultimately, the EBA drew students from every VBCPS high school attendance zone, except Kellam's.

Figure 6: Zoned High Schools for EBA Ninth-Grade Students



Student Prior Academic Achievement: A comparison of 2015-2016 SOL performance levels in reading when the EBA and non-EBA were eighth grade students revealed that the greatest portion of each group was in the mid-range Proficient category, as shown in Figure 7. The two groups differed, however, at the lower and higher levels. A larger proportion of the EBA group scored at the Advanced level while, conversely, a larger percentage of the non-EBA group scored at the Basic level. In other words, the academy selection process led to the enrollment of higher scoring students into the EBA.

Figure 7: SOL Reading Performance Levels for EBA and Non-EBA Students in Grade 8 in 2015-2016



Similar results were found for the grade 8 writing, math, science, and social studies SOL tests. Such differences at the lower and higher ends of the eighth grade achievement range would inevitably lead to differences in the 2016-2017 SOL scale scores. Yet, such differences also reflected the effectiveness of the EBA student selection process.

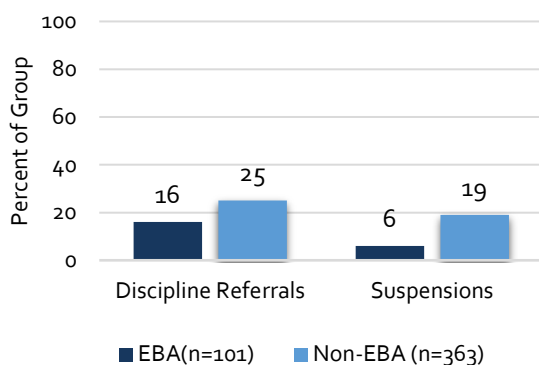
Student Attendance and Discipline: The attendance rate for the EBA students in 2016-2017 was 96.5 percent compared to 92.5 percent for the non-EBA KHS freshman group. Although such a 4 percent difference may appear small, it was found to be statistically and practically significant, yielding an effect size of .43. In terms of days present and absent, the EBA students attended school an average of nearly 19 more days than the non-EBA students – more than 174 days compared with fewer than 155 days. Conversely, the EBA students were absent an average of 6 days fewer than the non-EBA students – 6 days compared with 12 days.

A similar pattern emerged with respect to unexcused absences only. The unexcused absence rate for the EBA students was 1.4 percent compared with 4.5 percent for the non-EBA students. The 3.1 percent difference was statistically significant, yielding an effect size of .39. This translates to the EBA students having an average of about 4.2 fewer unexcused absences than the non-EBA students – 2.45 days compared with 6.60 days, on average.

In addition, comparisons within the EBA group were conducted to determine if proximity to KHS made a difference in attendance and unexcused absence rates. Comparing the 25 EBA students within the KHS attendance zone with the 76 EBA students outside of the KHS attendance zone yielded no statistically or practically significant differences. There was a 1.2 percent difference in attendance rate between the KHS-zoned students (97.4%) and the other EBA students (96.2%). The difference in unexcused absences was an even smaller two-tenths of one percent (0.2%) between the KHS-zoned students (1.2%) and other EBA students (1.4%).

A similar pattern of results was found with respect to discipline referrals and suspensions. Among the 101 EBA students, 16 students (16%) were referred for discipline at least once during 2016-2017. By comparison, 92 of the 363 non-EBA students (25%) received at least one referral. In turn, the percentage of EBA students that was suspended (6%) was only one-third as great as the percentage of non-EBA who were suspended (19%) during 2016-2017. These differences are depicted in Figure 8.

Figure 8: Comparison of EBA and Non-EBA Discipline Referrals and Suspensions



Staff Characteristics

In addition to the academy coordinator, the EBA opened in September 2016 with six teachers and one school counselor as its staff.

Table 7 indicates that the average amount of experience among EBA staff (i.e., teachers and school counselor) was six years. None of the seven EBA staff were in either their first or second year of experience. Five of the seven EBA staff had between two and five years of experience. A sixth staff member had six years of experience, and the seventh staff member had 18 years of experience – all in VBCPS.

Three of the seven EBA staff (43%) held advanced degrees, while all the EBA staff held at least one endorsement in a core subject, technology, business information, marketing, or school counseling.

As noted in Table 7, the gender breakdown indicates that six of the seven EBA staff (86%) were female. This was higher than the 67 percent for the rest of KHS. Divisionwide, 68 percent of all VBCPS high school staff were female. The percentage of Caucasian EBA staff was higher than the percentage at both the rest of Kempsville and all VBCPS high school faculty. Conversely, the percentage of other ethnicities among the EBA staff was lower than those among both the rest of KHS and all VBCPS high school faculty.

It is important to note that the relatively small number of staff in the EBA makes it difficult to draw meaningful comparisons. For example, the 14 percent of male teachers in the academy represents only one teacher.

Academy staff were asked on the EBA staff survey whether they would return for the second year of academy operations. All seven staff indicated their intent to return.

Table 7: Staff Characteristics and Qualifications

Staff Characteristics and Qualifications	EBA* (n=7)	KHS (n=108)	Division** (n=1,479)
Male	14%	33%	32%
Female	86%	67%	68%
Caucasian	100%	84%	80%
African American	0%	6%	10%
Asian	0%	6%	4%
Other Ethnicity	0%	4%	6%
Percentage With Advanced Degrees	43%	54%	54%
Percentage New to the Division	0%	15%	9%
Average Years Experience	6 yrs.	14 yrs.	15 yrs.

*Of the 115 KHS staff, 7 were considered EBA staff while 108 were considered non-EBA staff.

**High school level data only, including KHS.

Progress Toward Meeting Goals and Objectives

The third evaluation question asked, “What progress was made toward meeting the academy’s goals and objectives?”

Goal 1: Academic Preparation

The EBA proposal, approved by the School Board, included one overall goal, referred to as “Academic Preparation”:

Goal #1: “To provide students the business skill and knowledge necessary to succeed in any career-related fields of study in postsecondary education and in the workforce.”

The proposal then listed five objectives for students and a sixth objective for the academy to achieve. This section of the report will examine progress that has been made to meet these six objectives.

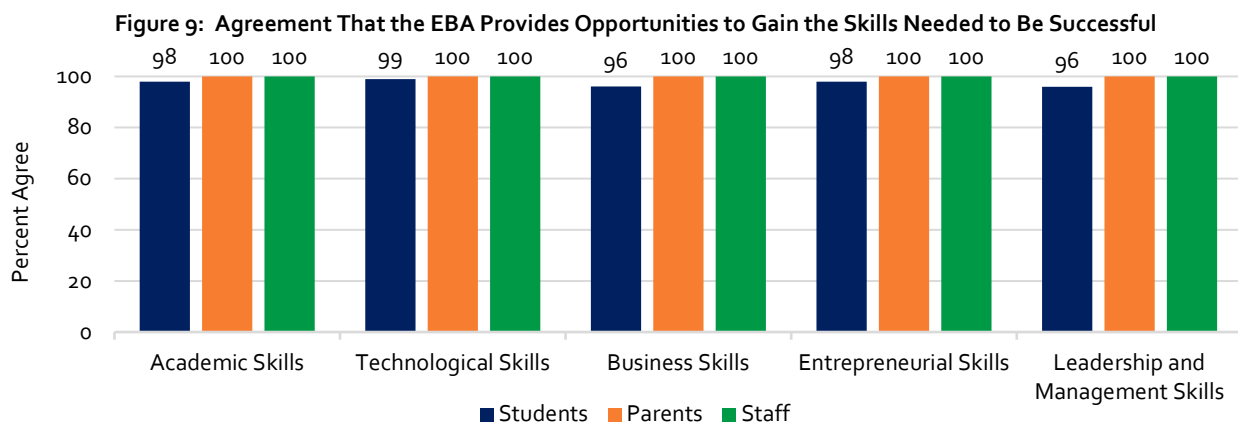
Objective #1: Academy Coursework

Objective #1: Students will successfully complete a sequential program of study that focuses on critical skills, knowledge, and technology in the fields of entrepreneurship, business information technology, and corporate finance.

As this is the first year of academy operation, it is not yet possible to determine how many students will successfully complete the EBA program of study from grades 9 through 12. That determination will be made when the academy is evaluated after full implementation in 2019-2020.

It is possible, however, to assess how well the program focuses on critical skills, knowledge and technology in the fields of entrepreneurship, business information technology, and corporate finance. It is also possible to determine if students are progressing toward meeting this objective based on data from several measures such as course enrollments and grades.

Perceptions: As noted previously in the report, several survey items on the student, parent, and staff end-of-year surveys asked about skills and technology. As Figure 9 shows, all three respondent groups – students, parents, and staff – either unanimously or almost unanimously agreed with each statement that the EBA had provided opportunities to gain the skills needed to be successful.



Course Enrollment and Grades: As shown in Table 8, nearly all academy students received a grade of “C” or better in courses they took during ninth grade. All 101 students (100%) took EBA Honors English, and all but two earned a grade of “C” or better. All academy students also took math, and all (100%) earned a grade of “C” or better. The two most commonly taken math

classes were Algebra II/Trigonometry (35 students) and Honors Geometry (29 students). For science, a total of 72 EBA students took Biology, 27 students took Earth Science, and 2 students took Chemistry. For social studies, 55 students took AP Human Geography, and 45 students took the EBA World Studies for Business course.

Table 8: EBA Courses, Enrollment, and Pass Rates

Courses	N	Percent Earning C- or Better
Core Courses		
EBA Honors English 9	101	98%
Algebra 1 Honors	18	100%
Algebra 2	1	100%
Algebra 2/Trigonometry	34	100%
Geometry Honors	29	100%
Geometry Series – Parts 1 and 2	18	100%
Biology	72	100%
Chemistry	2	100%
Earth Science	27	100%
AP Human Geography	55	93%
EBA World Studies for Business	45	100%
Academy Courses		
EBA Critical Issues in Business Seminar	101	100%
EBA Idea Generation and Creative Problem Solving	101	100%
EBA Introduction to Entrepreneurship, Business, and Information Technology	101	100%
Elective Courses		
French	11	100%
German	3	100%
Japanese	4	100%
Latin	5	100%
Russian	1	100%
Spanish	76	100%
AVID	12	100%
Music (Band, Orchestra, Guitar, or Piano)	6	100%
Other (Art, Theater, Technology, Photography and Printing)	6	100%

Further, the EBA course load for ninth-grade students during the 2016-2017 school year also included three classes designed especially for the academy. As mentioned previously, EBA Introduction to Entrepreneurship, Business, and Information Technology was a year-long course. The other two academy courses for the ninth-grade students were each one semester in duration: EBA Critical Issues in Business Seminar and EBA Idea Generation and Creative Problem Solving Seminar. All EBA students took these academy-specific courses and earned grades of C or higher.

In addition to the core and academy courses, EBA students chose their remaining classes from a large and varied menu of courses. In response to academy encouragement, all EBA students took a foreign language. The two most common languages studied

were Spanish and French. More than 75 percent of the 101 students took Spanish 1, Spanish 2, Spanish 3, or Spanish 4. An additional 11 students (11%) took French 1, French 2, French 3, or French 4. The remaining EBA students studied German, Japanese, Latin, or Russian.

Also, 12 students took an AVID study skills elective based on best practices in writing, inquiry, collaboration, organization, and reading (WICOR). Six students took a music class, and six students took an elective related to art, theater, technology, or photography and printing.

Objective #2: Associate's Degree/Postsecondary Credit

Objective #2: Students will have opportunities to earn an Associate's degree/postsecondary credit.

According to the academy proposal, opportunities to earn postsecondary credit would take two forms. The first mechanism is through advanced placement (AP) courses. The only AP course available to the ninth-grade EBA students was AP Human Geography. Of the 101 EBA students who remained in the academy for the entire school year, 55 students (54%) completed AP Human Geography. By comparison, only 16 of the 363 non-EBA students (4%) completed AP Human Geography.

Of the 55 EBA students who took AP Human Geography, 54 students (98%) passed the course - 51 students (93%) with a grade of C- or better, 40 students with a B- or better, and 18 students (33%) with a grade of A- or better. In addition, 73 percent of the EBA students who took the AP test (N=44) earned a score of 3 or above. By comparison, of the 16 non-EBA students who took the course, 13 students (81%) passed with a C- or better, 9 students (56%) with a B or better; and 1 student (6%) with an A-.

The second mechanism for earning postsecondary credit involved dual enrollment courses. In February 2017, 80 students took the Virginia Placement Test (VPT) and began taking dual enrollment classes on TCC's campus this summer or this fall/spring at KHS. The current menu of dual-enrollment courses is provided in Appendix B.

Objective #3: Academic Performance

Objective #3: Students will exceed the objectives of VBCPS curricula and Commonwealth of Virginia Standards of Learning tests.

Class grades and passing rates were reported previously in conjunction with the course enrollment discussion associated with the first objective. Progress toward attaining the academy's third objective is based on overall grade averages and test scores, including the results of the Standards of Learning (SOL) tests, the Reading Inventory (RI) test, and the certification tests.

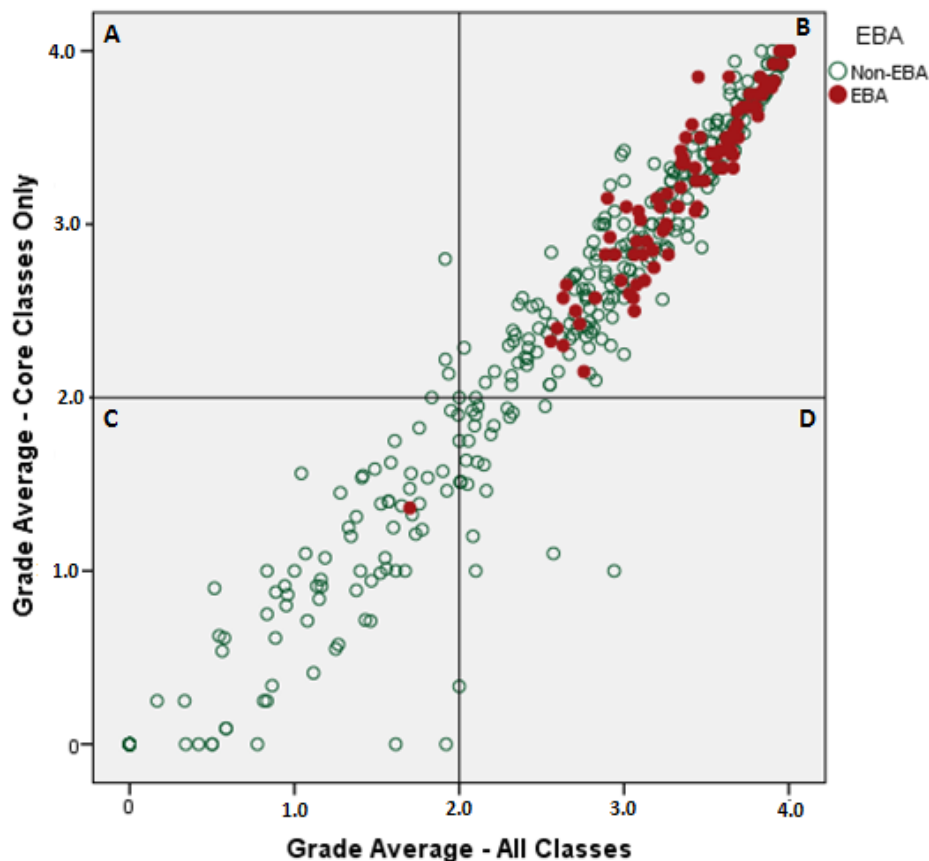
Grade Averages: Two sets of grade averages for academy students and non-academy ninth-grade students at Kempsville High School were reviewed. One grade average involved core classes only. The other grade average involved all classes taken during 2016-2017. For both sets, the grade averages of the academy students in ninth grade were higher than those of the non-EBA ninth-grade students. Analyses confirmed that the differences between the EBA and non-EBA grade averages were statistically significant, with associated effect sizes of .72 for the core classes only and .70 for the full set of grade averages. Both effects sizes, which are stated in the standard deviation metric, are at the end of the moderate range, according to commonly used guidelines – i.e., small = .20,

moderate = .50, and large = .80.³ The difference in grade averages between the EBA and non-EBA students is perhaps better illustrated by Figure 10.

In the scatterplot, the solid red circles represent the EBA students while the green circles represent the non-EBA ninth graders at KHS during the 2016-2017 school year. Red and green circles above the horizontal reference line represent a grade average for core classes of “C” or higher. Red and green circles to the right of the vertical reference line represent an overall grade average of “C” or higher with respect to all the classes taken during 2016-2017. Being closer to the upper right corner of quadrant B is most desirable, as it indicates being closer to having a 4.0 on both sets of grade averages.

The scatterplot shows that all but one of the EBA students (99%) were in quadrant B. In contrast, of the 345 non-EBA students with end-of-year core and overall grade averages, 260 (75%) had earned overall and core class grade averages representing a “C” or better.

Figure 10: Scatterplot of EBA and Non-EBA Grade Averages

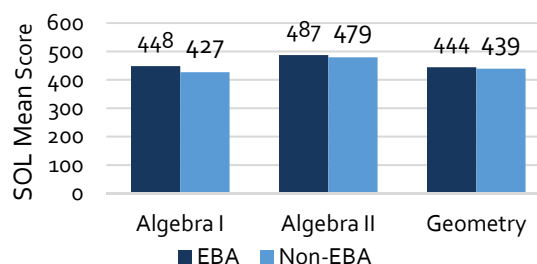


SOL and Other Test Results

As freshmen, EBA and non-EBA students participated in a variety of SOL tests. To safeguard both student privacy and the cogency of the results, this report excludes results when either the EBA or the non-EBA group had fewer than 10 students. In addition, as explained previously, SOL scores from 2015-2016 are used here as covariates for certain comparative analyses to ensure that the comparison of EBA and non-EBA students is as valid and accurate as possible. When such analyses were conducted, students lacking comparable scores from both years were omitted from the analysis. This ensured that the comparisons were statistically unbiased.

SOL Math Results: Academy students took one of three SOL mathematics tests: Algebra I, Algebra II, or Geometry. The SOL math results of the EBA students are compared in Figure 11 with those scores of non-EBA ninth-grade students at KHS who took the same test. The results showed that the EBA students earned higher scale scores than their non-EBA counterparts, regardless of which math test they took.

Figure 11: Comparison of EBA and Non-EBA SOL Math Scale Scores for 2016-2017



A somewhat different picture emerged, however, when the scale scores were ultimately dichotomized into pass rates, as displayed in Table 9. The 21-point difference in SOL math scale scores between the EBA and non-EBA students on the Algebra I test did yield a 12-point pass rate difference. However, with respect to the Algebra II test, the scale scores of both groups were high enough for all of the EBA students (100%) and all of the non-EBA students (100%) to be classified as passing. Similarly, on the Geometry test, the five-point difference in scale scores yielded less than a 1 percent difference in pass rates.

Table 9: Comparison of EBA and Non-EBA SOL Pass Rates in Math for 2016-2017

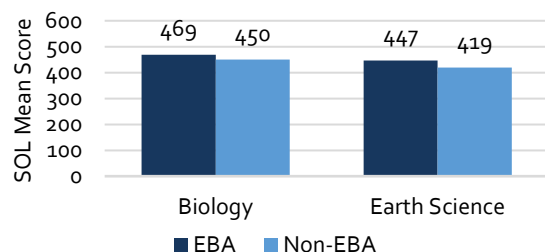
Test	EBA		Non-EBA		Difference
	n	% Pass	N	% Pass	
Algebra I	15	100%	147	88%	12%
Algebra II	36	100%	36	100%	0%
Geometry	46	96%	74	95%	1%

To ensure valid interpretation of the math, as well as the following science and social studies comparisons, the difference in the scale scores and pass rates between the EBA and non-EBA groups were adjusted by each student's performance on whichever SOL math test they took when they were in eighth grade during 2015-2016. This analytic technique, known as analysis of covariance, serves to equalize the proverbial starting line so that the 2016-2017 scores of the EBA and non-EBA groups can be compared more accurately and equitably. After controlling for the differences in their prior scores and pass rates, the current year SOL scores and pass rates were found to be much more similar. For example, with respect to the SOL scale scores, the Algebra I difference shrunk from 20 to 8 points; the Algebra II difference shrunk from 5 points to just 1 point; and the Geometry difference remained at 0. The shrinkage due to the adjustments strongly suggested but does not definitively prove that the unadjusted results more likely reflect the EBA students' prior academic achievement

and homogeneity rather than differences in the quality of the EBA and non-EBA instruction.

SOL Science Results: Academy students took one of three SOL science tests: Biology, Chemistry, or Earth Science. Because only two EBA students and no non-EBA students took the Chemistry test, the results are not reported in this section of the report. As depicted in Figure 12, the EBA students outscored the non-EBA students by 19 scale-score points in Biology and by 28 scale-score points in Earth Science.

Figure 12: Comparison of EBA and Non-EBA SOL Science Scale Scores for 2016-2017



But unlike math, the differences between the EBA and non-EBA groups remained nontrivial when their SOL scale scores were collapsed into pass rates, as shown in Table 10. The 19-point difference in SOL Biology scale scores yielded an 8-point difference in pass rates between the EBA and non-EBA students. On the Earth Science test, the 28-point difference in scale scores yielded a 26-point difference in pass rates.

Table 10: Comparison of EBA and Non-EBA SOL Pass Rates in Science for 2016-2017

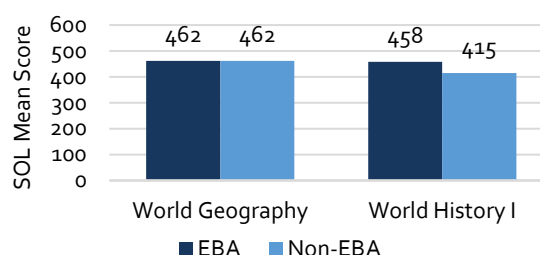
Test	n	% Pass	N	% Pass	
Biology	72	99%	92	91%	8%
Earth Science	27	100%	209	74%	26%

However, as with the math results, conducting analysis of covariance on the scores and pass rates of the Biology and Earth Science tests yielded results that suggested the following: none of the differences in the 2016-2017 SOL scale scores or pass rates were found to be statistically significant. That is, using their eighth grade SOL science scores to adjust for pre-existing differences between the EBA and non-EBA groups led this year's differences in scores and pass rates to shrink to almost nothing. Thus, as was the case with math, this finding suggests but does not conclusively prove that the initial, unadjusted results reflect differences between the EBA and non-EBA students in the level and spread of their 2015-2016 SOL scores rather than being attributable to differences in the quality of the instruction they received during 2016-2017.

SOL History Results: Kempsville High School freshmen took one of four SOL social studies tests: Virginia and U.S. History, World Geography, World History I, or World History II. However, only the World Geography and World History I tests were taken by a sufficient number of EBA and non-EBA students to be reported in this evaluation. As displayed in Figure

13, the 55 EBA students and the 15 non-EBA students earned the same mean scale score of 462 on the World Geography SOL test. Also as displayed in Figure 13, the outcome differed on the World History I test. The mean scale score for the 45 EBA students who took the test was 43 points higher than the mean scale score earned by the 285 non-EBA students who took the same test.

Figure 13: Comparison of EBA and Non-EBA SOL Social Studies Scale Scores for 2016-2017



As exhibited in Table 11, the EBA and non-EBA students earned similar pass rates on the World Geography test – 98 percent and 100 percent, respectively. In contrast, the 43-point difference in scale scores on the World History I test yielded a 27 percent difference in pass rates.

Table 11: Comparison of EBA and Non-EBA SOL Pass Rates in Social Studies for 2016-2017

Test	EBA		Non-EBA		Difference
	n	% Pass	N	% Pass	
World Geography	55	98%	15	100%	-2%
World History I	45	100%	285	73%	27%

The analyses of covariance conducted on the scores and pass rates yielded different results between the World Geography and the World History I tests. As with the math and science tests, no statistically significant differences were found between the EBA and non-EBA students after the scores and pass rates for the two

groups were adjusted by each student's SOL social studies performance on the eighth grade tests in 2015-2016. However, on the World History I test, statistically significant differences between the two groups remained, even after the adjustments were made to control for 2015-2016 differences.

Reading Inventory Results: In addition to taking applicable SOL tests, most KHS freshmen also took the *Reading Inventory* (RI) test. Because the SOL reading test for high school is intended for eleventh grade students, the RI results provided the best available indication of reading proficiency among the EBA and non-EBA students.

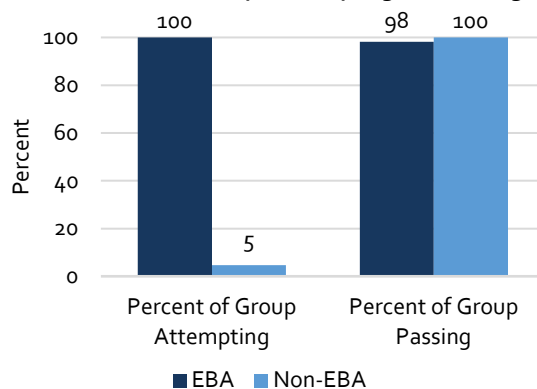
The *Reading Inventory* is a multiple-choice, computer-adaptive reading comprehension assessment that reports student reading levels using the Lexile measurement scale. Students receive a Lexile score that is linked in turn to a rating of whether or not the student is reading on grade level.

Analyses of the 2016-2017 RI results revealed that the average Lexile score was notably higher in the spring for the EBA students (Lexile = 1281) than for the non-EBA group (Lexile = 1089) – a difference of 192 Lexile points. Accordingly, the percentage of EBA students classified as reading on or above grade level also was higher in the spring for the EBA students (92%) than for the non-EBA students (65%).

Certification Test Results: As previously reported, all 101 EBA students (100%) took at least one test to earn an industry-related certification, with 98 of the 101 (97%) taking at least two certification tests. Of the 225 attempts by EBA students to pass a certification test, 221 were successful, yielding a pass rate of 98 percent. Of the 221 successful attempts, 218 – or 99 percent – were in pursuit of a certification as a Microsoft Office Specialist (MOS). Of the successful certification attempts, 15 involved MOS certification in Excel, 101 involved MOS certification in PowerPoint, and 102 involved certification in Microsoft Word.

By comparison, as displayed in Figure 14, while all (100%) of the 21 non-EBA attempts to earn a certification were successful, they involved only 17 of the 363 non-EBA freshmen (5%).

Figure 14: Comparison of EBA and Non-EBA Certification Tests – Percent of Groups Attempting and Passing



Summary of Academic Performance: Overall, progress was made during the EBA's first year of implementation toward meeting the academy objective that students will meet or exceed the division's academic goals. With respect to course selection and earned grades, the EBA students tended on average to outperform the other KHS freshmen, choosing more challenging courses and earning better grades.

Both the unadjusted and adjusted SOL results showed that academy students performed as well as or better than the non-academy Kempsville High School students on applicable SOL tests and the Reading Inventory. The resulting passing rates on the SOL tests for academy students ranged from 96 to 100 percent, depending on the test, while ranging from 73 to 100 percent for non-EBA students.

On the *Reading Inventory*, EBA Lexile scores were substantially higher in the spring than their non-EBA counterparts.

Finally, with respect to attempting and earning industry certifications, many more EBA students than non-EBA students (100% of 101 compared with 5% of 363) took a certification test while the pass rates were nearly identical – 98 percent for the EBA group compared with 100 percent for the non-EBA group.

Objective #4: Enrichment Activities

Objective #4: Students will participate in job shadowing, mentoring, and/or internship programs that extend, enrich, and refine student learning and that create linkages between the academic and business communities.

The EBA's job shadowing program was deliberately set to commence when students are in their sophomore

year, after they had completed their year-one coursework. Each job shadowing experience – albeit, brief – introduces the student to what a job is like. It also provides students with opportunities to initiate possible mentoring relationships with members of the business community.

With respect to making progress toward the objective, EBA leadership began during the 2016-2017 school year to develop relationships with a wide variety of local businesses and professionals who may be willing to host job shadowing experiences for EBA students and possibly serve as mentors.

The year-two evaluation will address this objective more thoroughly after the program has actually started to operate during 2017-2018.

Objective #5: Long-Term Project/Internship

Objective #5: Students will complete a long-term project through an internship/mentorship experience with a culminating presentation in the senior year featuring an in-depth study of an issue of concern to their related industry and present ideas/solutions as viable options to address the issue to a panel of business and community leaders.

All students within the academy will complete a long-term project or internship during their senior year. It is envisioned as an on-the-job training experience that will provide the student an opportunity to identify real-world application of curriculum content and experiences. Throughout the project or internship, students will maintain an online blog about their experiences, reflections, and connections to related coursework.

The experience will culminate toward the end of the school year in a student presentation regarding an issue or concern addressed within the business they are working and the student's ability to provide solutions or ideas to assist the business in addressing that concern. This presentation will be delivered by the student, and members of the community, business, and school will be present to provide feedback and show support for the student's work through the project. Academy staff will be extensively involved in the required internship program.

Although the long-term project will not formally begin until they are in twelfth grade, students have already begun preparing for their long-term project by

participating in the EBA's course of study and enrichment activities during their freshmen year.

Further progress toward meeting this fifth objective will be reviewed as part of the year-two evaluation of the academy.

Objective #6 Collaborative Agreements With Institutions of Higher Education

Objective 6: The academy will establish collaborative agreements with institutions of higher education that result in ongoing program development and assessment.

Discussions regarding dual-enrollment course offerings and credit among the leaders of the EBA, VBCPS, and TCC led to 80 EBA students taking the Virginia Placement Test (VPI) in February 2017. Some students began taking dual enrollment classes on TCC's campus during the summer of 2017. Others were scheduled to begin in the fall or spring of 2017-2018 at KHS. In addition, discussions regarding the development of courses toward an associate's degree have continued to take place between the academy leadership and officials at TCC, who have demonstrated interest in further expanding the dual enrollment course options. This opportunity will be predominantly for juniors and seniors.

Tidewater Community College was not the only college or university collaborating with the EBA. During the 2016-2017 school year, all EBA staff members attended a week-long professional learning seminar regarding entrepreneurship and business instruction at Babson College in Wellesley, Massachusetts, which also provided the EBA with a variety of curricular and formative assessment resources.

Meanwhile, collaboration between the EBA and ODU, especially with the Strome Entrepreneurial Center, has resulted in several opportunities during 2016-2017 for students and staff to attend and participate in lectures, presentations, and other academy-relevant activities.

Stakeholder Perceptions

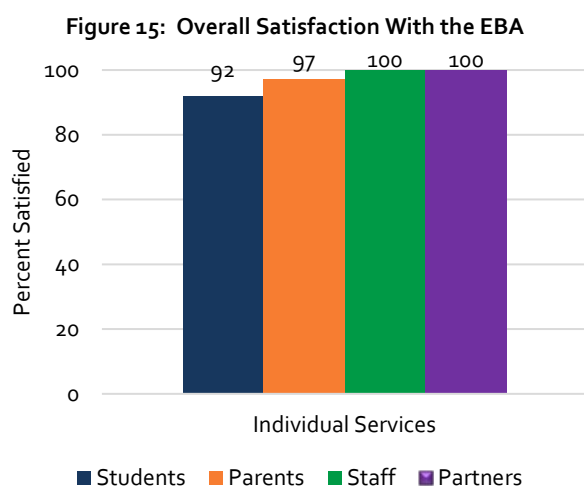
The fourth evaluation question asked, "How was the academy's implementation perceived by students, parents, staff, and partners?"

This section of the report provides a summary of the general close-ended survey items that were asked of multiple participant groups. It also summarizes the most

common themes from the open-ended survey items. Other survey results regarding the operational components of the EBA were presented previously in the applicable sections of the report.

Overall Perceptions

Figure 15 displays the results for survey items assessing overall satisfaction. Strong positive results were found for all groups of respondents with agreement levels at 92 percent or higher, with little variation in results among the respondent groups.

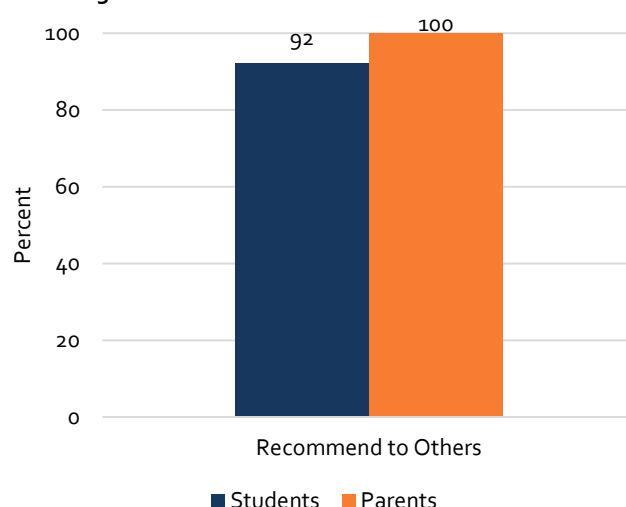


Continued Participation: Students, parents, and staff were asked if they intended to continue their enrollment or employment in the EBA during the 2017-2018 school year. Among the EBA students, 99 of the 102 respondents (97%) indicated “Yes.” Two of the three “No” students commented that they were undecided while the third student had decided to pursue a career path other than business.

Of the 37 parents who responded to the survey, 100 percent indicated that their child intended to return to the academy. Meanwhile, all seven respondents to the staff survey indicated their intention to continue teaching at the EBA during 2017-2018.

Affirmation: One of the most compelling indications of satisfaction with something rests in whether someone would recommend it to others. Accordingly, students were asked if they would recommend the EBA to other students. Similarly, parents were asked if they would recommend the EBA to the parents of other students. As displayed in Figure 16, the vast majority of both the students and the parents indicated that they would recommend the EBA to others.

Figure 16: Recommend the EBA to Others



Participant Comments

Each of the four surveys (student, parent, staff, and partner) contained open-ended questions about what was gained from being enrolled in the EBA during 2016-2017 and what improvements to the EBA, if any, would the survey respondent suggest.

As mentioned previously, open-ended survey responses were coded into thematic categories for qualitative analysis, as well as considered for possible verbatim inclusion in this report. Note that some individual responses included more than one theme, and the responses could contribute to two or more category percentages. As a consequence, percentages often sum to more than 100 percent.

What is Gained From Being Enrolled: One open-ended survey question asked, “What do you think students gain from enrollment in the EBA?” This question was included on all versions of the survey, not only for students and for parents but also for EBA staff and community partners. Table 15 displays a cross-tabulation of the themes by respondent group.

Table 12: Perceptions of What is Gained From EBA Enrollment

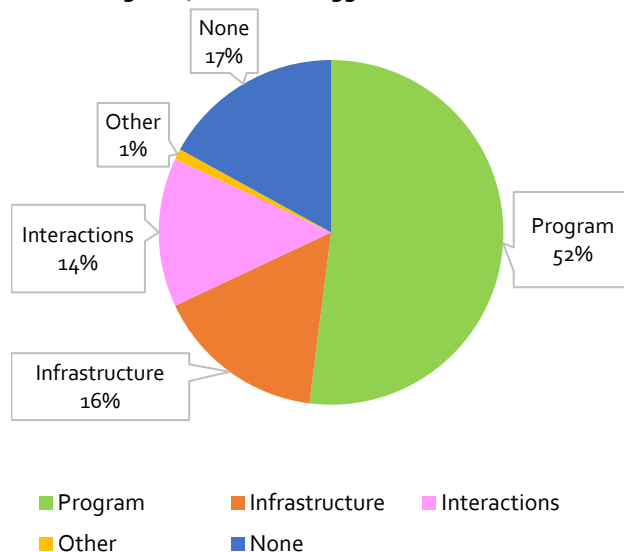
	Students (N=102)	Parents (N=37)	Staff (N=7)	Partners (N=11)
Knowledge and skills for school	8%	8%	0%	0%
Knowledge and skills for work or self-employment	57%	16%	57%	36%
College credit and industry certifications	19%	11%	0%	0%
Work experience and business connections	16%	14%	29%	18%
A sense of confidence, responsibility, accomplishment, etc.	13%	22%	14%	9%
Soft skills involving leadership, organization, critical thinking, work ethic, etc.	8%	16%	71%	9%
A supportive learning community environment	1%	13%	14%	9%
Unclear, ambiguous, impossible to categorize	9%	88%	0%	0%
Other	0%	0%	0%	18%

The most common student response focused on knowledge and skills for work or self-employment. In contrast, the most common response from parents involved emotional attributes such as greater self-confidence or a stronger sense of responsibility. Staff responses, on the other hand, focused mainly on “soft skills,” with 71 percent citing skills such as organization, critical thinking, and creative problem solving. Further, 4 of the 11 respondents to the partner survey (36%) mentioned skills for work or employment while 2 of the 11 (18%) focused on gaining business experience and making business connections.

Suggested Improvements: All four respondent groups also were asked to suggest ways that the EBA could be improved. No common themes emerged across the participant groups. Only one staff member responded to this open-ended question, expressing a hope that academy students would continue to be a part of whole-school activities.

Figure 17 displays a summary of the student responses.

Figure 17: Student Suggestions for the EBA

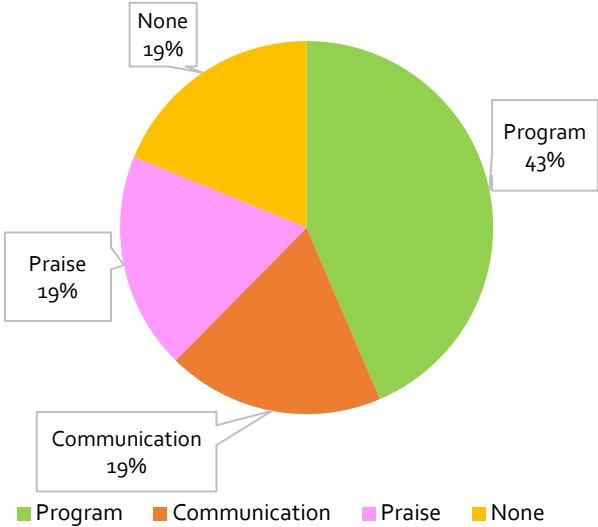


More than half of the suggestions from students (52%) referred to the design (22%) or the implementation (30%) of the academy program. Often the suggestions were contradictory, however. For instance, while three students suggested that courses should be “harder” and two other students suggested that classes should be “more challenging,” five other students suggested that classes should be “easier” or “less stressful.” Other contradictory suggestions involved increasing or reducing the workload, the number of master classes, and the number of projects and community service requirements. These kinds of contradictory suggestions occurred in small numbers that also in their balance tended to cancel each other out. For every student who suggested increasing the number of field trips, another student wanted fewer field trips.

The slice of the pie chart labeled “Interactions” included suggestions involving relationships among EBA students, with staff, and with non-EBA students at KHS. With regard to students in the academy, three students suggested that students needed to be more “polite” and more “respectful” to one another. With regard to interactions between students and staff, three students suggested, for example, that teachers should be “more lenient” while three other students suggested that teachers should be stricter with respect to dispensing discipline. Two other students mentioned that staff should “embrace our (student) creativity rather than their own.” Further, regarding relations between the EBA and the rest of KHS, three students suggested that academy leadership try to “eliminate the segregation between academy and regular kids.”

Figure 18 presents a summary of themes that emerged when parents were asked to suggest improvements to the EBA. The largest percentage of comments (43%) focused on the program itself.

Figure 18: Parent Suggestions for the EBA



The parent responses were quite varied, and few echoed the students’ responses or those of other parents. Table 13 includes typical responses regarding the EBA program and its implementation.

Table 13: Examples of Parent Suggestions for the EBA

"Have students dissect why certain businesses succeed while others fail."
"More challenging classes, improved facilities."
"Lighter workload...homework can sometimes be insane."
"Because organization and time management is a must for the EBA curriculum, I believe it should be taught outright."
"More classes for the Business IT track. There's a stronger emphasis on Entrepreneurship and not other business aspects."

In addition, while 19 percent of the parents’ suggestions to improve the EBA involved the need for more clear or timely communication between the academy staff and parents, another 19 percent of the parents’ responses to the survey question involved praise for the program, the staff, and especially the academy coordinator.

As with the parents, the suggestions from the community partners for improving the EBA were also varied and distinct from each other. One respondent wrote: "In attending the Partners in Education celebration, I would have liked to see more of the students and their work highlighted." Another partner suggested having local clothing stores provide business attire to all EBA students in exchange for being allowed to publicize their assistance. Yet another partner

suggested emphasizing "the incubation of real, live student businesses, whether through Junior Achievement or some other mechanism."

Additional Cost

The final evaluation question asked, "How did the actual costs of the academy compare with projected costs specified in the budget section of the proposal?" These include both (a) the one-time purchase and start-up costs and (b) the year-one operating costs for fiscal year 2016-2017. The academy’s budget from the original academy proposal is included in Appendix E for reference.

This section of the report outlines the budget that was part of the approved academy proposal as well as the costs of start-up and year-one operation. Information about actual expenditures was provided by the Department of Teaching and Learning, the Department of School Division Services, the Office of Budget Development within the Department of Budget and Finance, and the Department of Human Resources.

Two types of academy costs in 2015-2016 and 2016-2017 were included in this section: one-time, start-up costs and annual recurring operating costs. Start-up costs were delineated in the EBA proposal as one-time purchases. They included costs incurred during 2015-2016 and 2016-2017 while preparing the EBA to open in September 2016. In general, start-up costs are defined as costs associated with physical or tangible assets that have a useful life of more than one year and that were incurred in the year prior to the initial implementation of an academy’s first grade level – grade 9 in the case of the EBA. In addition, because each subsequent year brings the new implementation of another grade level of the academy due to the phased-in implementation plan, some expenses during each fiscal year should be considered as start-up costs until after full implementation of all of the academy’s grade levels. Start-up expenses included costs for items in the following cost categories: instructional materials, curriculum development, equipment and furniture, technology, additional buses needed for academy transportation, and improvements to the facilities.

In addition to start-up costs, annual recurring operating costs are also incurred. Operating costs were defined as annual, recurring expenses for academy operation. Operating expenses include costs for items in the following cost categories: consumable instructional materials, subscriptions, field trip expenses, dues/memberships/fees, consumable office and

computer supplies, food services, communication, staff development, personnel, and transportation. These are costs that would be expected each year after an academy reaches full implementation across all grade levels.

Following the methodology of the June 2005 academy cost analysis report, the operating costs reported in the tables are in excess of school-generated funds and the per pupil allocations that travel with the students that would have been expended on the students in any setting.

To answer the evaluation question, the actual start-up and year-one operating costs were compared to the costs specified in the proposal. Costs are rounded to the nearest dollar figure. It should be noted that nonconsumable and consumable instructional materials could not be differentiated, so all instructional costs are included under operating costs to align with the academy budget proposal which included all instructional materials as a recurring operating cost.

The projected and actual start-up costs for the EBA are presented in Table 14. The two largest discrepancies between the budget and actual expenditures involved transportation and facilities. Although the proposed

budget included no start-up costs for transportation, A total of \$677,650 was spent on seven new school buses, hiring and training seven full-time bus drivers, and an office associate (.2 FTE) for the out-of-zone costs as a result of the academy. Of this amount, 75 percent was allocated to the academy (see Table 14) because after the resources were spent for the start-up of the academy, the buses and drivers were utilized to cover other bus runs or to cover for absent drivers. On a percentage basis, the academy accounted for 75 percent of the bus use.⁴

In contrast, while the budget proposed \$439,530 for improving KHS facilities in preparation for implementing the EBA, only \$4,908 was actually spent for start-up renovations at the time of this report. As discussed previously in this report, the facilities improvement work was rescheduled until the summer of 2018.

Therefore, despite the lack of actual expenditures on facilities improvements during 2016-2017 and mainly because of the unbudgeted transportation costs, the EBA's total start-up expenditures exceeded the total one-time or start-up costs in the proposed budget by \$126,017.

Table 14: One-Time Start-Up Costs for the EBA

Cost Category	Proposed Budget	Actual Cost 2015-16 Fiscal Year	Actual Cost 2016-17 Fiscal Year	Start-Up Total for Year-One
Instructional Materials	\$0	n/a	n/a	n/a
Curriculum Development	\$8,000	\$1,900	\$2,692	\$4,592
Equipment and Furniture	\$75,085	n/a	\$77,889	\$77,889
Technology	\$53,883	n/a	\$106,888	\$106,888
Transportation - Buses	\$0	n/a	\$508,238	\$508,238
Facilities	\$439,530	n/a	\$4,908	\$4,908
Total One-Time or Start-Up Cost	\$576,498	\$1,900	\$700,615	\$702,515

The projected and actual annual recurring operating costs are presented in Table 15. The figures in the table indicate that the actual costs incurred aligned relatively

closely with the proposed budget. The one major exception involved the hiring of the academy coordinator in August 2015.

Table 15: Annual Operating Costs for the EBA's Year-One Implementation

Cost Category	Proposed Budget	Actual Cost 2015-16 Fiscal Yr	Actual Cost 2016-17 Fiscal Yr	Actual Cost Total
Instructional Materials	\$65,000	\$4,095	\$90,379	\$94,474
Subscriptions	\$0	n/a	\$2,072	\$2,072
Field Trips	\$0	n/a	n/a	n/a
Dues/Memberships/Fees	\$0	n/a	n/a	n/a
Office Supplies	\$1,000	n/a	\$2,611	\$2,611
Food Services	\$0	\$353	\$4,683	\$5,036
Communication	\$0	n/a	\$1,021	\$1,021
Professional Learning	\$6,400	n/a	\$8,670	\$8,670
Academy Specific Personnel*	\$190,106	Coordinator: \$108,104 Substitutes: \$990	Coordinator: \$109,305 Teacher: \$68,281 Substitutes: \$10,898	\$297,578
Transportation	\$201,518	n/a	\$192,773	\$192,773
Total Annual Operating/Recurring Cost	\$464,024	\$113,542	\$490,693	\$604,235

*Based on average salaries for academy coordinators across the division and academy teachers at the EBA.

Based on actual cost data from 2015-2016 and 2016-2017, the total annual operating cost for year one was \$604,235, which was \$140,211 higher than the budgeted costs. Much of the excess was attributed to the \$108,104 salary and benefits for the academy coordinator during the planning year. It does not appear that the coordinator allocation for 2015-2016 was included in the budget. Staffing costs also included one additional FTE teacher allocation which was provided to the academy during its first year of operation. This allocation was over and above the staffing ratio used for all high schools. Overhead costs for fringe benefits and health insurance for the coordinator and full-time

teacher allocation were included (25.23% plus \$7,538 for 2015-2016 and 24.23% plus 7,821 for 2016-2017).

Overall, the budget for one-time start-up and year-one operating costs was \$1,040,522 over a two-year period spanning 2015-2016 and 2016-2017. In actuality, the one-time start-up and year-one operating costs amounted to \$1,306,750 over the two years. Thus, the actual costs were \$266,228 more than the budgeted costs. In addition, facilities improvements are still needed to align with plans set forth in the academy proposal.

Recommendation and Rationale

Recommendation #1: Continue the Entrepreneurship and Business Academy within Kempsville High School without modifications. *(Responsible Groups: Department of Teaching and Learning, Kempsville High School)*

Rationale: Continuing the EBA without modifications is recommended because the operation of the EBA was found to largely correspond with what had been set forth in the proposal approved by the School Board. The academy opened on schedule in September 2016. During its first year of implementation, the academy made progress toward meeting its goal and objectives. It successfully instituted a rigorous and comprehensive program of study for students interested in entrepreneurship and innovation, business information technology, and corporate finance. The program included a combination of required and elective courses, as well as enrichment and community service activities. Its students' academic performance was encouraging, as exemplified by passing grades, successful test scores, and a high number of successful attempts to earn industry-related certifications. In addition, its stakeholders perceived the academy favorably.

Appendices

Appendix A: Entrepreneurship and Business Academy Suggested College Preparatory Curriculum by Strand

Strand I: Entrepreneurship & Innovation

Grade 9	Grade 10	Grade 11	Grade 12
Academy Honors English 9*	Academy Honors English 10*	AP English Language or Academy Honors	AP English Literature or Dual
Algebra, Geometry, Algebra II/ Trigonometry	Geometry, Algebra II/Trigonometry, Math Analysis, Dual Enrollment Pre-Calculus I & II	Algebra II/Trig, Math Analysis, Dual Enrollment Pre-Calculus I & II, AP Calculus AB, Dual Enrollment Calculus, AP Computer Principles	Math Analysis, Dual Enrollment Pre- Calculus I & II, AP Calculus AB, Dual Enrollment Calculus, AP Computer Science, Dual Enrollment Statistics
Earth Science**, Biology	Biology, Chemistry	Chemistry, AP Environmental Science, AP Chemistry, Physics, AP Physics	AP Biology or Dual Enrollment Biology
World Studies for Business I or AP Human Geography	World Studies for Business II or AP European History	AP VA/US History or Dual Enrollment History	U.S./VA Government or AP Government & Politics or Dual Enrollment Government
Health/PE 9 (online course encouraged***)	Health/PE 10 (online course encouraged***) or Dual Enrollment Health/PE	Economics and Personal Finance* or AP Economics* or Dual Enrollment Macroeconomics* & Dual Enrollment Microeconomics*	Senior Internship* Dual Enrollment Course or Academy Elective
Introduction to Entrepreneurship, Business and Information Technology*	Advanced Entrepreneurship & Innovation* (IncubatorEDU)	Dual Enrollment Entrepreneurship* or AcceleratorEDU*	Senior Internship* Dual Enrollment Course or Academy Elective
Optional Elective: Study Block, EBA Idea Generation & Critical Issues in Business, AVID, Band, Orchestra, Chorus, etc.	Design for Entrepreneurs*	Dual Enrollment Introduction to Business or Academy Elective Dual Enrollment Public Speaking* or Public Speaking*	Senior Internship*
Foreign Language I or Higher	Foreign Language II or Higher or Optional Elective	Foreign Language III (if still needed) or Leadership Skills*/DE Leadership Development*	Senior Internship*

(Source: http://khsentrepreneurshipacademy.weebly.com/uploads/1/4/1/0/14107623/courses_formatted_update_december_2016.pdf)

Appendix A: Entrepreneurship and Business Academy Suggested College Preparatory Curriculum by Strand (continued)

Strand II: Business Information Technology

Grade 9	Grade 10	Grade 11	Grade 12
Academy Honors English 9*	Academy Honors English 10*	AP English Language or Academy Honors English	AP English Literature or Dual Enrollment
Algebra, Geometry, Algebra II/Trigonometry	Geometry, Algebra II/Trigonometry, Math Analysis, Dual Enrollment Pre-Calculus I & II	Algebra II/Trig, Math Analysis, Dual Enrollment Pre-Calculus I & II, AP Calculus AB, Dual Enrollment Calculus, AP Computer Principles	Math Analysis, Dual Enrollment Pre-Calculus I & II, AP Calculus AB, Dual Enrollment Calculus, AP Computer Science, Dual Enrollment Statistics
Earth Science**, Biology	Biology, Chemistry	Chemistry, AP Environmental Science, AP Chemistry, Physics, AP Physics	AP Biology or Dual Enrollment Biology
World Studies for Business I or AP Human Geography	World Studies for Business II or AP European History	AP VA/US History or Dual Enrollment History	U.S./VA Government or AP Government & Politics or Dual Enrollment Government Hybrid
Health/PE 9 (online course encouraged***)	Health/PE 10 (online course encouraged***) or Dual Enrollment Health/PE	Advanced Technology Center Program+*	Advanced Technology Center Program*
Introduction to Entrepreneurship, Business and Information Technology*	Advanced Computer Information Systems*	Advanced Technology Center Program*	Advanced Technology Center Program*
Optional Elective: Study Block, EBA Idea Generation & Critical Issues in Business, AVID, Band, Orchestra, Chorus, etc.	EBA Computer Programming*	Advanced Technology Center Program* Economics and Personal Finance* or AP Economics* or Dual Enrollment Macroeconomics* & Dual Enrollment Microeconomics*	Advanced Technology Center Program*
Foreign Language I or Higher	Foreign Language II or Higher or Optional Elective	Advanced Technology Center Program* Foreign Language III (if still needed)****	Advanced Technology Center Program* Senior Internship*

(Source: http://khsentrepreneurshipacademy.weebly.com/uploads/1/4/1/0/14107623/courses_formatted_update_december_2016.pdf)

Appendix A: Entrepreneurship and Business Academy Suggested College Preparatory Curriculum by Strand (continued)

Strand III: Corporate Finance

Grade 9	Grade 10	Grade 11	Grade 12
Academy Honors English 9*	Academy Honors English 10*	AP English Language or Academy Honors English	AP English Literature or Dual Enrollment
Algebra, Geometry, Algebra II/Trigonometry	Geometry, Algebra II/Trigonometry, Math Analysis, Dual Enrollment Pre-Calculus I & II	Algebra II/Trig, Math Analysis, Dual Enrollment Pre-Calculus I & II, AP Calculus AB, Dual Enrollment Calculus, AP Computer Principles	Math Analysis, Dual Enrollment Pre-Calculus, Dual Enrollment Statistics* and/or Dual Enrollment Calculus or A/B Calculus
Earth Science**, Biology	Biology, Chemistry	Chemistry, AP Environmental Science, AP Chemistry, Physics, AP Physics	AP Biology or Dual Enrollment Biology
World Studies for Business I or AP Human Geography	World Studies for Business II or AP European History	AP VA/US History or Dual Enrollment History	U.S./VA Government or AP Government & Politics or Dual Enrollment Government Hybrid
Health/PE 9 (online course encouraged***)	Health/PE 10 (online course encouraged***) or Dual Enrollment Health/PE	Economics and Personal Finance* or AP Economics* or Dual Enrollment Macroeconomics* & Dual Enrollment Microeconomics*	Senior Internship* Dual Enrollment Course or Academy Elective
Introduction to Entrepreneurship, Business and Information Technology*	Accounting*	Dual Enrollment Principles of Accounting I* (Semester) or Advanced Accounting* Dual Enrollment Principles of Accounting II* (Semester) or Advanced Accounting*	Senior Internship* Dual Enrollment Course or Academy Elective
Optional Elective: Study Block, EBA Idea Generation & Critical Issues in Business, AVID, Band, Orchestra, Chorus, etc.	Business Law & Ethics* (Semester) Corporate Finance* (Semester)	Dual Enrollment Introduction to Business or Academy Elective Dual Enrollment Public Speaking* or Public Speaking*	Senior Internship*
Foreign Language I or Higher	Foreign Language II or Higher	Foreign Language III (if still needed) or Leadership Skills*/DE Leadership Development*	Senior Internship*

(Source: http://khsentrepreneurshipacademy.weebly.com/uploads/1/4/1/0/14107623/courses_formatted_update_december_2016.pdf)

* Required through Academy Strand

** If student has not taken Earth Science prior to Grade 9, there will be a need for the student to take a science course over the summer, two sciences in his/her senior year, or the student will need to take Economics online in grade 11 in order to earn an Advanced Studies diploma.

*** Taking Health/PE online opens up a student's schedule to take additional courses they have an interest in (Band, Chorus, Orchestra, Art, etc.).

Appendix A: Entrepreneurship and Business Academy Suggested College Preparatory Curriculum by Strand (continued)

Additional Information:

- The Entrepreneurship and Business Academy program and course offerings are being developed with VBCPS Department of Teaching and Learning, VBCPS Office of Career and Technical Education, Kempsville High School, Tidewater Community College, input from Business/Community partners with the needs and interests of students in mind. Courses and course names are subject to change during the development process.
- Academy elective options within each strand will be developed based on student need and interest.
- Students who wish to pursue a 2-year associate's degree through Tidewater Community College will need to enroll in additional courses. This will be discussed with each individual academy student during the construction of their 4-year plan.

Appendix B: Dual Enrollment and Advanced Placement (AP) Course Options for EBA Students

Table 1: Dual Enrollment and Advanced Placement (AP) Courses for Advanced VBCPS Diploma

Dual Enrollment Course Options	Recommended Grade Level
Dual Enrollment Health/PE	10
Dual Enrollment Pre-Calculus I & II	10, 11, or 12
Dual Enrollment Calculus	10, 11, or 12
Dual Enrollment History	11 or 12
Dual Enrollment Macroeconomics and Microeconomics	11
Dual Enrollment Entrepreneurship	11
Dual Enrollment Introduction to Business	11
Dual Enrollment Public Speaking	11
Dual Enrollment Leadership Development	11
Dual Enrollment English 12	12
Dual Enrollment Statistics	12
Dual Enrollment Biology	12
Dual Enrollment Government Hybrid	12
Dual Enrollment electives (tbd)	11 and 12
Advanced Placement (AP) Course Options	Recommended Grade Level
AP Human Geography	9
AP English Language and Composition	11
AP English Literature and Composition	12
AP Calculus AB	11 or 12
AP Computer Principles	11 or 12
AP Statistics	12
AP Biology	12
AP Chemistry	11
AP Environmental Science	11
AP Physics	11
AP Economics	11
AP VA/US History	11
AP Government & Politics	12
AP Computer Science	12

Appendix B: Dual Enrollment and Advanced Placement (AP) Course Options for EBA Students (continued)

Table 2: Tidewater Community College and Kempsville Entrepreneurship & Business Academy Suggested Course by Course Alignment - Courses Needed to Pursue an Associate of Science in Business Administration Degree

Semester	TCC Course #	TCC Course Title	High School Course Title
1	ENG 111	College Composition I	AP English Literature (3)* -or- DE English 12
1	MTH 163	Pre-Calculus I	DE Pre-Calculus
1	SDV 100	College Success Skills	None – TCC Course
1	BUS 116	Approved Business Administration Elective	DE Entrepreneurship
1	PED ELE	Health/Physical Education Elective	DE PE option
1	HIS 121	History Elective	AP US History (3)* -or- DE History
2	CST 100	Principles of Public Speaking	DE Public Speaking
2	ECO 201	Principles of Macroeconomics	AP Econ Macro -or- DE Macroeconomics
2	ENG 112	College Composition II	AP English Literature (3)* -or- DE English 12
2	MTH 270	Applied Calculus	AP Calculus AB (3)-or- DE Calculus
2	CST 229, ENG 125, ENG 211, ENG 241 or HUM 246	Humanities Elective: Options: Intercultural Communication (CST 229), Intro to Literature (ENG 125), Creative Writing (ENG 211), Survey of American Literature I (ENG 241), Creative Thinking (HUM 246)	None – TCC Course
3	ACC 211	Principles of Accounting I	DE Accounting
3	BUS 280	Introduction to International Business	DE International Business
3	ECO 202	Principles of Microeconomics	AP Econ Micro -or- DE Economics & Financial Management
3	GEO 210	Approved Business Administration Elective	AP Human Geography (3)* -or- DE Geography
3	BIO 101	Science with Lab Elective	AP Biology (3)* -or- DE Biology
4	ACC 212	Principles of Accounting II	DE Accounting
4	BUS 216	Probability and Statistics for Business and Economics	DE Statistics
4	PLS 241	Approved Business Administration Elective	AP Government & Politics: Comparative -or- DE Government
4	PHI 220 or PHI 226	Humanities Elective: Options: Ethics (PHI 220) or Social Ethics (PHI 226)	None – TCC Course
4	BIO 102	Science with Lab Elective	AP Biology (3)* -or- DE Biology

Appendix C: Industry Certifications that EBA Students May Pursue

Potential Industry Certifications
Microsoft Office Specialist (MOS) Certification
Concepts of Entrepreneurship and Management Assessment
Customer Service and Sales Certification Assessment
Advanced Customer Service and Sales Certification Assessment
Workplace Readiness Skills for the Commonwealth Examination
National Occupational Competency Testing Institute (NOCTI) Accounting Assessment
Adobe Certified Expert (ACE)
National Occupational Competency Testing Institute (NOCTI) Advertising Design
Microsoft Technology Associate (MTA)
Computing Technology Industry Association (CompTIA) A+
Cisco Certified Entry Level Technician (CCENT)
Cisco Certified Network Associate (CCNA)
Certified Internet Webmaster (CIW)
Financial Accounting College Level Examination Program (CLEP) Examination
Global Standard (GS4) Examination
Introductory Business Law College Level Examination Program (CLEP) Examination
Accounting, Advanced Assessment
Accounting, Basic Assessment
Business Financial Management Assessment
Financial and Managerial Accounting Assessment
AutoCAD Examination
Autodesk Certified User Examination
Certified SolidWorks Associate Examination

Appendix D: Community Business Partners

Community Business Partners
Antonia Christianson Events
ARDX
Bell Tone
Brick House Diner
Cheryl Tan Media
Chick-Fil-A Haygood
Coastal Café
Design Elements
Digital Marketing Specialists Tidewater Communications Interactive
Dominion Enterprises
Edible Arrangements
IHOP – Kemps River
IHOP - Landstown Commons
Junior Achievement of Greater Hampton Roads
Klett Consulting Group Inc.
Law Office of Joel Ankney, PC
Lynn's Beach House
Madison Jewelers
Novel Views CO
Operation Smile
Philip L. Russo, Jr. P.C.
Pita Pit
PNC Commercial Banking
Real Property Management Hampton Roads
Rotary Club
Rubin Communications Group
State Farm Insurance - Pierre Granger
Strome Entrepreneurial Center at Old Dominion University
The Opus Group
The Rock Gym
TWWS Internet Consulting Company
US Naval Plumbing
VB Public Libraries - Kempsville Location
Virginia Beach Economic Development
Virginia Beach School's Credit Union
Virginia Tourism Corporation
Walter T. Camp, Esq.
WRV Summer Skate Camp
Y Not Pizza & Italian Cuisine

Appendix E: One-purchase costs and recurring costs to develop and implement the Entrepreneurship and Business Academy at Kempsville High School⁵

	One-Time Purchase and Start-up Costs			Recurring Costs	
Description	FY 16/17	FY 16/17	FY 17/18	FY 18/19	FY 19/20
Equipment and Furniture					
Makerspace	\$75,085				
Technology					
Computers and Printers	\$32,263				
Networking and Switches	\$9,500				
Tablets/Portable Devices	\$12,120				
Office and Computer Supplies		\$1,000	\$1,000	\$2,500	\$2,500
Instructional Materials					
Textbooks/Online Resources		\$30,000	\$30,000	\$30,000	\$15,000
Resource Materials		\$10,000	\$12,500	\$15,000	\$17,500
Supplemental Instructional Materials		\$15,000	\$15,000	\$12,500	\$12,500
Software		\$5,000	\$5,000	\$5,000	\$5,000
Printing		\$5,000	\$5,000	\$5,000	\$5,000
Curriculum and Staff Development					
Teacher Workshop Pay		\$4,000	\$4,000	\$4,000	\$2,000
Consultants		\$4,000	\$4,000	\$4,000	\$2,000
Professional Development		\$6,400	\$6,400	\$8,500	\$10,000
Substitute Pay		\$2,000	\$2,000	\$2,000	\$2,000
Total	\$128,968	\$82,400	\$84,900	\$88,500	\$73,500
Salaries and Fringe Benefits					
Academy Coordinator		\$98,825	\$101,426	\$104,106	\$106,866
FTEs (Year 1 1 FTE, Year 2 +1 FTE, Year 3 +1 FTE, Year 4 +1 FTE)		\$89,281	\$183,318	\$282,330	\$386,546
Total		\$188,106	\$284,744	\$386,436	\$493,412
Facilities Improvements					
Conversion of TCE Classroom		\$439,530	\$466,983		
Total		\$439,530	\$466,983		
Transportation Costs					
Drivers Salaries		\$63,612	\$68,030	\$76,167	\$80,817
Operational Costs		\$100,650	\$118,950	\$137,250	\$148,230
Activity Drivers		\$14,136	\$16,113	\$18,135	\$18,368
Activity Operational Costs		\$23,120	\$32,640	\$38,080	\$40,800
Total		\$201,518	\$235,733	\$269,632	\$288,215
Grand Total	\$128,968	\$911,554	\$1,072,360	\$744,568	\$855,127
Total Implementation					\$3,712,577

End Notes

¹ From October 6, 2015 School Board Agenda Cover Sheet

² Source: <http://khsentrepreneurshipacademy.weebly.com/eba-learning-spaces.html>

³ Cohen, J. (1988). *Statistical Power Analysis for the Social Sciences*. Hillsdale, NJ; L. Erlbaum Associates.

⁴ Source: C. Blair, personal communication, August 30, 2017.

⁵ Source: Entrepreneurship and Business Academy at Kempsville High School Proposal, September 2015.

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For Further information, please call (757) 263-1199

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