CASE STUDY:
BIG VALLEY CHRISTIAN SCHOOL

Introduction: A Growing Advanced Placement Program

Big Valley Christian School (BVCS) is a small private school in Modesto, California, established in 2001. Though there are only about 200 students in the high school grades today, BVCS offers 10 total AP courses to best prepare their students for their futures. Two years ago, Principal Sharolyn Larson and Assistant Principal Cindy Alavezos were searching for ways to increase their AP course offerings. With small enrollment numbers in such advanced courses, BVCS had to consider multiple angles, including the importance of the subject as well as convenience in implementation. The administrators settled on an AP Computer Science course, and called upon their most experienced computer and technology educator: Deborah Raingruber.

Raingruber had been at the school for a long time, and was the go-to IT person for her colleagues. While she had studied some programming in the past, such as BASIC, Raingruber felt in over her head with the in-depth requirements of an AP Computer Science course. After some searching online, she stumbled upon Edhesive. “After one phone call with the remarkable, knowledgeable, and helpful school program manager, I was much calmer,” related Raingruber. “With such reasonable per-student pricing and structured lesson plans, Edhesive’s AP CSA course was the perfect fit for our school.” Principal Larson unhesitatingly supported Raingruber’s curriculum choice, sending her to the state’s AP conference to prepare.
When Raingruber began to dig into the coursework, she realized that, “with Edhesive, you don’t have to know how to teach it at the beginning. It was so easy for me to jump in and get started; I was able to learn along with my students. I wish I had known how easy Edhesive made it for me to help my kids be successful! I wouldn’t have worried so much or been stressed.” In the first year AP CSA was offered, there were 6 students in the course. Raingruber felt that the small group offered a wide variety of interest and ability levels, as well as unique opportunity for camaraderie. “In my class, we don’t raise our hands. We walk around; we help each other; we talk about answers. This is what makes the class so successful – struggling is an integral part of the learning process. Not knowing the answer, then working together to find it is a critical component of the course.”

Raingruber especially appreciated the support from the Edhesive teacher forum when she had questions. “When I got stuck, I didn’t panic! I kept telling myself that this is Edhesive! They’ll have it figured out already. I found the teacher forum to be extremely helpful. Every time there was a hurdle, I didn’t mind posting a question, even if it seemed obvious. Undoubtedly, someone else would chime in with an answer.” She described her biggest success of the whole program to be the sense of a cohesive community between multiple schools, teachers, and students participating in the course nationwide.

Raingruber believes that computer science coursework goes beyond the curriculum. “Computer science teaches students how to think, how to logically problem solve, and how to persevere. It has everything to do with a curious, creative mind.” She described a student who asked why zero-based numbering is utilized in modern programming languages. “We talked through it to the end, coming to the conclusion that it’s simply just done that way. This is just an example of what computers and technology are encouraging: a search for a logical explanation, this question of why? It asks students to challenge their preconceived notions of order. Raingruber added the practical applications of problem solving skills, noting that many tech companies have their own programming languages. “They don’t expect you to know the language already – They want to know if you can learn it, if you can work together, and if you can problem solve.”

One former BVCS student found his passion in programming through AP CSA, and is now majoring in computer science at the University of the Pacific. Another student, who wanted to be an engineer, discovered that he absolutely hated programming. He still found the program to be invaluable, however, as he realized that he had established the basis of mutual understanding needed to communicate with programmers in his line of work. “I’ve never had any student say that they didn’t enjoy the process,” Raingruber disclosed. “No matter if they hated programming or loved it, they always feel the value of Edhesive’s curriculum. Out of 15 students, I’ve had 4 who have decided to become professional programmers.”
Reflection

“When I first was chosen to teach AP CSA, I thought, how hard could it be? Without Edhesive, it would have been impossible.” Today, BVCS offers two Edhesive courses, AP CSA and AP CSP. Raingruber is working to build BVCS’s computer science program, appreciating that AP CSP can be offered to an academically mature sophomore, helping to prepare the students for AP CSA down the line. “I want as many kids as possible to be given the chance to learn the ideas and concepts of computer science, and Edhesive’s online course structure works beautifully for students of all different levels.” Raingruber expressed that no matter what, students learn how to analyze a problem and find solutions with computer science education. “In life, they will come up against many problems. The important thing is that they learn how to solve it. They learn that there can be multiple working solutions to any problem.”

Outcomes at Big Valley Christian

- 66% percent of students passed the AP CSA exam in the first year with Edhesive curriculum.
- BVCS now utilizes two Edhesive courses, AP CSA and AP CSP. They are working to build an even more in-depth CS program that begins in 6th grade.
- Multiple students from BVCS have decided to make a career out of programming.

Highlights for Teachers

- The teacher forum is an excellent resource for real-time questions.
- Schools all over the country contribute to Edhesive’s online community.
- Computer science education teaches invaluable problem solving experience that translates into all aspects of life.

Edhesive makes online learning accessible, personal, and meaningful. We combine online instruction from nationally recognized experts with the personal support of local teachers, who offer students face-to-face guidance and support.

Ready to find out what’s possible for your school? Email us at info@edhesive.com today.