



Commonwealth of Virginia

Department of *General Services*
Division of Purchases and Supply

2018 George Cronin Awards for Procurement Excellence

**Blended Learning:
A 21st Century Learning
Design in Virginia Public
Procurement.**

Executive Summary

The Virginia Institute of Procurement (VIP) operates under the auspices of the Department of General Services (DGS), Division of Purchases and Supply (DPS) and delivers procurement education to public procurement professionals. VIP's Virginia Contracting Certification Program currently offers professional certification at three levels:

- Virginia Contracting Associate (VCA)
- Virginia Contracting Officer (VCO)
- Virginia Contracting Master Program (VCM)

Participation in the program is voluntary and open to employees of the Commonwealth of Virginia and employees of other public bodies in Virginia who meet the eligibility criteria of the certification level they wish to pursue. VIP also offers Continuing Education classes that satisfy the recertification hours required every five years for the certification programs above through the annual Public Procurement Forum in addition to other learning programs.

The VCA certification program, launched in 2006, is the first tier of the Virginia Institute of Procurement career path for public procurement professionals in Virginia. Currently, the VCA has 1,426 certified procurement professionals, which include the 394 under the new blended learning program.

The blended learning program evolved from a classroom-only program that now starts with four weeks of asynchronous online course work, which began as a pilot on May 9, 2017. It consists of guided reading assignments, quizzes, and interactive activities followed by a hands on two-day classroom experience.

The VCA program offers a comprehensive purchasing course for individuals whose jobs consist of 10% or more of purchasing related activities. The program covers the full procurement cycle; ethics, resources, methods, evaluating, e-procurement, contract administration, compliance, small purchasing card, as well as, many other purchasing guidelines needed for purchasing up to \$100,000. The certification exam is on the morning or afternoon of the third day.

The VCA program has experienced remarkable growth since its inception, which places greater demand on resources. A solution was identified that provided over 245 State agencies and 100 localities in the Commonwealth of Virginia a quality blended learning program from the previous classroom-only program that not only added value but reduced resource requirements while improving service to the Commonwealth of Virginia. This blended learning program utilizes a new Learning Management System (LMS) and computerized testing environment. The instructional designer spent over a year observing basic foundational procurement needs to develop the online module with supporting case studies in classroom. This instructional design was chosen to create an effective and efficient means of collaboration while scaling the instructional design for future growth.

Innovation

The VCA program has experienced remarkable growth since its inception, which places greater demand on resources. A solution was identified that provided over 245 State agencies and 100 localities in the Commonwealth of Virginia a quality blended learning program from the previous classroom-only program that not only added value but reduced resource requirements while improving service to the Commonwealth of Virginia.

This unique approach was developed based on a model of adult learning- The Transformative Theory. The Transformative Theory focuses on self, convictional, and behavioral dimensions that were interwoven into the curriculum. The VCA curriculum takes a deep dive into State regulation, ethics, and case study's to test oneself on a situational basis in these dimensions from over 21 classroom contact hours.

As indicated previously, the solution was to apply this model in conceptualizing a new learning program that further supports the Commonwealth of Virginia Division of Purchases and Supply's renewed strategic focus in providing services that make it easier and more convenient to do business with the Commonwealth and make it more simplistic and cost efficient for the government to do its business. The division's flexible and innovative approach to procurement creates cost savings and ensures transparency and accountability in the purchasing and contracting process. The training materials were transitioned from a static to fluid set of documents that emulated State guidelines and code regulations.

The most notable aspect of this transformation was to ensure that training materials were communicated in an expressive and intuitive way that adds value in constructing the foundation for procurement careers through outreach, fact-based activities, and development initiatives that would ultimately lead to certification.

This blended program would not have been possible given the limited classroom space, previous Learning Management System (LMS) functionality, and limited access to trainers. What makes this approach unique is the content and delivery that offers State employees access to self-direct coursework and the ability for supported fact-based assessments. The emphasis on fluid design in online pre-class materials allows participant to walk away with a living document, which changes alongside annual policy review. In addition, the blended model of the redesigned program allows for both the objectivity of policy training and the subjective networking component most easily integrated into the classroom setting.

Transferability

The linear process in applying transferability are as follows:

1. Identify the organization requirements through a needs assessment
2. Collaborate, Identify, and Retain resources available by the State agency to develop a conceptual map.
3. Establish a learning and development outreach unit based on the conceptual map
4. Plan a Blended Learning Curriculum based on andragogical principles
5. Develop instructional design model best suited for State agencies
 - Face-to-Face
 - Rotation
 - Flex
 - Lab
 - Self-blend
 - Online
6. Identify appropriate Learning Management System (LMS) to create learning program
7. Target one certification level at a time for either review or implementation
8. Establish objectives and goals for each class or module
9. Decide whether to make the specific class face-to-face, blended, or online only
10. Identify internal division resources to ensure learning program is manageable, sustainable, and scalable
11. Create and Implement annual certification opportunities through educational classes at conference events. The Commonwealth of Virginia Division of Purchases and Supply offers an annual Public Procurement Forum for all Virginia State Agencies and localities as one way to obtain their continued educational requirements.

The Public Procurement Forum is first and foremost about continuing education in procurement. Many procurement professionals have earned state (VCA, VCO, VCM) or national (CPPB, CPPO, C.P.M., etc.) certification and are required to earn continuing education hours in

order to recertify their professional credentials. The Public Procurement Forum is a cost-effective way to gain significant educational benefits for a modest cost.

Sessions are presented on dozens of topics aimed at the varying skill levels and experience of the participants. Speakers come from the ranks of nationally recognized procurement thought leaders, DGS/DPS and other agency professionals and from local governments.

A secondary benefit of the Public Procurement Forum is the opportunity for peer networking and collaboration. Through formal and informal engagement, the Public Procurement Forum strengthens individuals in their careers while collectively strengthening Virginia procurement overall. Virginia leads the way in procurement education and the Public Procurement Forum is a key reason for this achievement.

Service Improvement

The VCA program offers a comprehensive purchasing course for individuals whose jobs consist of 10% or more of purchasing related activities. The program covers the full procurement cycle; ethics, resources, methods, evaluating, e-procurement, contract administration, compliance, small purchasing card, as well as, many other purchasing guidelines needed for purchasing up to \$100,000. The certification exam is on the morning or afternoon of the third day.

By conceptualizing how information was shared from static, paper-based design to a digital online design, the VCA program rapidly became a collaborative effort between State agencies to pilot and support the transition of the program to a new digital program.

The Virginia Institute of Procurement (VIP) began communicating the intent of this transition early in 2017 to add value and solicit feedback to strengthen the VCA program.

During 2017, a survey was administered to attendees soliciting feedback from the online pre-work prior to classroom instruction provided. The question asked, "How helpful do you feel it was to have access to online materials prior to class?" 82% responded Very/Extremely helpful (61/74 respondents from August through December 2017). The results were further illustrated in the VCA exam average pass rate. The average passing rate of the VCA exam prior to this blended learning program was 80, and after the blended learning program was implemented the average passing rate increased by 5 basis points to 85. The pre-work in the online design enhanced attendee retention of the material through self-guided activities and afforded VIP the ability to reallocate resources.

Service was measured by asking open-ended questions from the attendees to give VIP suggestions from the user perspective from the online materials in terms of user friendliness and effectiveness of delivery. VIP gained invaluable insight from the open-ended questions, which led to the April 2018 VCA class providing a 100% positive response to the online materials as being Very/Extremely helpful. A goal in VIP is to use this survey data to further enhance the service component of the program through user friendliness and effectiveness of the training. Based on this VCA feedback given during calendar year 2017, attendees felt the prerequisite material provided a solid foundation to complete the VCA course and access the online information at users own pace providing greater access to information and efficiency.

Equally, service was further improved by transitioning the VCA exams from a paper-based format to online format. Historically, exams were scored by hand and often took 8 hours per session to complete the manual scoring requirement. Today, exams are scored online and provided immediately to the attendee. The trainer is only required to load questions from a test bank, which has further improved service and maximized resources for the Commonwealth of Virginia.

Cost Reduction

Virginia Institute of Procurement (VIP)	AVG- Cost Per Click (CPC)	\$	0.03	
VCA Program: Cost Analysis	AVG- Cost Per Hour (CPH)	\$	1,209.55	
CY 2018				
	Populace	Paper	Time	Total
VCA: (8 sessions)	224			
Consumables:				
Classroom only:				
Workbooks (80 pages/each)		17920		
Individual Handouts (30 pages/each)		6720		
Group Handouts (6 pages/each for 6 groups)		288		
Blended:				
Pre-Test and Bid Tab Worksheet (10 pages/each)		2240		
Group Handouts (6 pages/each for 6 groups)		288		
Difference		22400		
Time:	10			
Classroom only:				
(2 trainers/3 days/16 hours day)			96	
(Exam Review and Scoring- 8 hours/each session)			64	
Blended:				
(10 trainers/2.5 hours per trainer/25 hours total)			25	
(Exam Review and Scoring- Computer Software-Immediate)			3	
Difference			132	
Total- (Savings)		\$ 666.40	\$ 159,660.60	\$160,327.00
Notes:				
(1) Populace is based on actual attendance for calendar year 2018.				
(2) Paper expense is based on actual average cost per click.				
(3) Time expense is based on actual average cost per hour that includes fringe benefits.				

Cost reduction is realized in two distinct areas- paper and time. Paper was calculated based on the type of learning program conveyed and identified the total cost between the classroom-only and blended learning program.

Time was calculated based on the type of learning program, number of trainers, and hours that were actually utilized for each of the programs. The classroom-only program required more trainers and exam review when compared to the blended learning program.

The total cost reduction was \$160,327.00 and afforded the Virginia Institute of Procurement (VIP) the ability to reallocate resources that further enhanced the other certificate programs including the exam component.