



Teachers as Project Managers:

Leveraging Project Management to Build Exemplary CTE Programs

By April J. Miller and Brenda Clark

In today's demanding environment, career and technical education (CTE) instructors must be talented multi-taskers who shoulder numerous responsibilities beyond what their academic counterparts assume. In addition to lesson planning and classroom instruction, many CTE teachers serve as advisors for career and technical student organizations (CTSOs); oversee school-based enterprises; coordinate work-based learning experiences; attend or lead professional development trainings, and much more. While some appear to handle this workload with ease, many would readily admit that they could use help to remain organized. They would benefit from project management.

Long heralded in the business world as a means to facilitate the growth and development of new endeavors and undertakings, project management is a skillset that doesn't get much attention in CTE teacher-preparation programs, or in education in general. Yet with its focus on planning, organization and reflection, project management can benefit a CTE teacher's day-to-day workflow immensely.

Projects and Project Management

A project is a temporary group activity intended to yield a unique product, service or result, while project management involves the application of knowledge, skills and tools to project activities to meet a specific goal. Project management consists of five process groups: initiating, planning, executing, monitoring and controlling, and closing.

Initiating a project involves defining the project and determining who will be involved in and/or impacted by the project. Next, the project moves into **the planning process group**. Here, a project manager and his/her team establish the project's scope; determine the work involved in completing the project; develop a project schedule; and create plans for human resources, communications, quality and risk management. **Executing the project** involves completing the work, and developing the project deliverables.

Throughout the project, project managers **monitor and control** its progress, reporting on status; handling issues that arise; and managing the overall workflow in terms of scope, schedule, quality and risks. Finally, the last process group will **close**

the project, which entails submitting deliverables; conducting a post-project review; and documenting lessons learned.

Although the terminology and tools may seem a bit foreign at first, it's well worth the time and effort to put project management methodologies to work in the classroom. The adoption of project management tools and techniques forces project managers (including CTE teachers) to become more focused on the details of their work and more intentional in their actions and decisions.

Preparing CTE Teachers as Project Managers

The Project Management Institute Educational Foundation (PMIEF), the philanthropic arm of the Project Management Institute (PMI), has long recognized the need to integrate project management into secondary school curricula to spur scalable breakthroughs in education. In 2013–14, PMIEF commissioned the non-profit organization MBA Research and Curriculum Center to examine educators' perceived value of project management in high school CTE curricula as well as to gauge interest in integrating project man-

agement into instruction. The study revealed that most educators consider project management skills critical to students' acquisition of 21st century competencies, and that teachers need simple educational resources to integrate project management into instruction ("PMIEF Secondary," 2014). These findings prompted further collaboration between the two organizations, resulting in the development, pilot and global dissemination of free project management-rich CTE curricula for business management, finance, and marketing secondary school classes.

In 2016, following the successful launch of these curricula, PMIEF and MBA Research unveiled a professional development initiative to enhance CTE teachers' project management abilities to build and manage exemplary CTE programs. The two organizations sought to ensure that CTE teachers gained confidence and competence as project managers, given that many instructors execute projects without necessarily knowing how to truly manage them. A nationwide call for participants was issued, and 10 business and marketing teachers representing seven states were selected for the initiative to better understand the role that project management can play in professionalizing CTE teachers.

Lead trainer Lori Hairston of Washington DECA, along with the authors, Dr. Brenda Clark and April J. Miller of MBA Research, commenced the initiative with training during MBA Research's annual conference for CTE business administration teachers in Mobile, Alabama, in October 2016. While many participants knew little-to-nothing about project management from the practitioner's perspective, each was charged with adopting and applying project management techniques to a specific task to understand firsthand the challenges, successes and overall outcomes of leveraging project management to build exemplary CTE programs. Teachers selected projects they would need to complete regardless of their participation in this initiative.

Projects included a summer internship program, a district CTSO conference, a summer curriculum academy, and the spring closing and fall start-up of multiple school-based enterprises. Teachers managed their projects throughout the 2016–17 school year, sharing their prog-

ress and learning about project management processes and tools via whole-group monthly webinars and several one-on-one discussions with Hairston, who holds a certification in IT project management. Two additional in-person sessions occurred in January and July 2017.

Of the original 10 teachers, seven completed the initiative. Some were quite pleased with their end result — the projects that they successfully planned and managed — while others admitted to less than stellar outcomes, primarily due to insufficient time, resources and/or understanding of project management.

Reflecting on the Initiative

Participants' feedback on the initiative makes it abundantly clear that project management, when pragmatically applied, can be a boon for CTE teachers. It makes them more focused, thoughtful planners who are better prepared for unfortunate eventualities that teachers often encounter, including limited budgets and lack of outside support. Project management also prevents teachers from straying from the scope or purpose of their projects, instead focusing on the milestones and tasks that are necessary for on-time, on-budget project completion.

Nevertheless, it's important to consider more than just the positive outcomes, as there's much to be learned from what didn't go quite as expected or was poorly planned from the start. For example, the breadth and depth of project management training that participants received early in the initiative proved to be inadequate for many, and while most overcame this obstacle, one teacher was unable to complete her project due to limited understanding of project management. If this initiative were repeated, then more in-depth training would be required prior to selecting and starting their projects.

Likewise, asking teachers to select a project and begin work on it in October lacked foresight. By that time, most were at least two months into the school year and had already started their projects (which were required in their capacity as instructors, CTSO advisors, etc., regardless of their participation in this initiative) without having received project management training. As a result, many had to rework their projects. To prevent this in the

future, initial training should occur in the summer prior to initiating the project.

Tips for Teachers as Project Managers

In July 2017, participating teachers and trainers convened at MBA Research's headquarters in Columbus, Ohio, to share their projects and lessons learned. As the teachers presented, it became abundantly clear that each experienced a unique takeaway — for instance, the importance of careful planning and the need to diligently monitor project teammates. The teachers' lessons can serve as helpful tips valuable to any CTE educator who wants to apply project management to his/her own project and/or integrate it into classroom curricula.

Tip #1: Start Small and Build from There

When Hairston, the authors and MBA Research conceptualized this initiative, they envisioned that teachers would apply project management processes and tools to all aspects of their CTE programs, including but not limited to curriculum, pedagogy, classroom management, CTSOs and work-based learning. However, while facilitating the first training session, they quickly realized that expectations would have to be altered. The trainers regrouped, asking the teachers what types of projects would be more manageable. The answer: something smaller, specifically one discrete project that each participant was already planning (or had begun doing) that year. This was the first foray into project management for many of the teachers, so they needed to start small with a single project rather than to attempt to apply project management to an entire program at once.

Tip #2: Slow Down and Take Time to Plan

Dr. Ann Stewart, an entrepreneurship and marketing teacher at Stewarts Creek High School in Smyrna, Tennessee, applied project management to the spring closing and fall start-up of four school-based enterprises. Students and other teachers comprised her project team. She taught them the project management process groups as well as shared tools and templates to help them better organize and execute their work. According to Stewart, she and her team ultimately discovered that

project management “formalizes what we already knew in our minds” and increases the likelihood of success.

Hence, careful planning is high on Stewart’s list of advice for teachers looking to apply project management within their CTE programs. Rather than diving immediately into doing the work, Stewart’s team took time to carefully plan the different tasks they needed to accomplish. The value gained from initiating and planning the project, which included determining the scope of their work and devising plans for organizing human resources, handling potential risks, and determining the criteria for success, “was amazing,” Stewart said. In fact, she added, “The more time spent on the initiating and planning stages of the project, the greater the benefits at the end.”

Tip #3: Build a Team; Don’t Do It All Yourself

Jane Nelms, a business teacher at Grand Junction High School in Grand Junction, Colorado, admitted that she was new to project management and that she used to “do projects rather manage them.” During this initiative, though, she learned the benefits of project management and now considers it “a foundation that gives your life balance.”

Nelms and one of her students, a state CTSO officer, coordinated a CTSO district leadership conference, and she was very enthusiastic about applying her project management knowledge to do so. While onlookers considered the conference a success, things behind the scenes were unfortunately “really thorny.” Miscommunications and an extremely small project team proved difficult. As Nelms put it, “I had not structured the project so that others could help” — a mistake that she isn’t likely to make again. Despite these problems, Nelms says that project management “saved the conference.”

Tip #4: Prepare for Bumps in The Road

Two Michigan marketing teachers, Kim Guest of Kearsley High School in Flint and Jennifer Milke at Henry Ford II High School in Sterling Heights, partnered to plan and implement the Michigan Marketing Educators Summer Curriculum Academy. The two spent countless hours together, organizing necessary tasks and

developing a milestones timeline. Still, they experienced challenges in working with the project’s stakeholders, including cost-conscious individuals who ultimately delayed the teachers’ work. While seemingly reasonable, the delays were nonetheless detrimental and compromised the project schedule.

What advice do Guest and Milke have for teachers looking to apply project management to their work? “Plan for bumps before they happen,” said Milke. The unforeseen can occur and cause a project to derail, but preparing for those problems in advance as well as communicating changes and setbacks in real time can make all the difference. By doing so, according to Guest, you can prevent things from “falling through the cracks” and impeding project success.

Tip #5: Create a Schedule and Get Status Updates from Project Teammates

Leading by example, Hairston selected and managed her own project. As executive director of Washington DECA, Hairston must generate revenue, so she and her staff organized a special fundraising event.

Hairston taught her team project management fundamentals and trained them to utilize a variety of project management tools to improve efficiency. Chief among these were team and individual Gantt charts to visualize their project schedules, including milestones, individual tasks and due dates, as well as status reports that project team members regularly submitted to Hairston. Viewed in concert, Hairston explained, the Gantt charts and status reports made it “apparent who was behind or on schedule.” Armed with this knowledge, she was better able to shift human and monetary resources to where they were needed most to keep the project on track and make the fundraiser a success.

Next Steps

PMIEF and MBA Research’s initiative has made clear that project management can be a powerful asset to a CTE teacher in building an exemplary program. It forces teachers to slow down, plan more thoroughly, ask for assistance, prepare for multiple eventualities, and generally increases the odds of positive results, regardless of the project. Furthermore, giving instructors an opportunity to identify and to execute a project of their choice prior to introducing project management to students allows project management concepts to resonate more deeply, especially because they can reflect on lessons learned and better understand concepts like risks, assumptions and constraints.

PMIEF intends to take its teacher training activities to scale globally by working with and through education thought leaders, state departments of education and ministries of education. Worldwide reach to educators allows for project management integration into secondary school curricula even as initiatives, such as this one led by MBA Research, inform the content, delivery format and timing for these activities to achieve the most significant outcomes, including teachers as project managers. ■

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