Senior and Culminating Projects

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Introduction

Much of education policy in recent years has focused on the development of high academic standards and better assessments to ensure students are meeting the standards. Concerns about gaps in achievement between various groups of students within the U.S., combined with fears that other nations are producing students who are "out-competing" American students, have led to increased calls for educational accountability. The 2001 No Child Left Behind Act (NCLB) responded to these calls by creating tough new accountability requirements for states seeking federal education funding.

While statewide standardized tests have been part of public education for decades, NCLB has led states to focus much more intensively on assessment. But critics argue that the law's emphasis on reading, writing and mathematics (and eventually science) has contributed to a narrowing of the curriculum, and that Americans should be provided with a broader, more comprehensive education that includes the arts and humanities, foreign languages, history and the social sciences.

Many critics of standardized assessments also claim that – especially in high schools – the pressure to demonstrate constant improvement in student test scores has contributed to an atmosphere in which efficiency and conformity trump human relationships and authentic learning, and in which students see school as increasingly irrelevant to their daily lives. The standard approach to secondary teaching, in which learning is broken down into discrete subjects (what critics call "the factory model") makes it difficult for students to synthesize the knowledge and skills acquired in the classroom and apply their learning to situations outside of school. The effect of these outdated and dehumanizing approaches to teaching and learning, the critics contend, is students feel increasingly disengaged from school and uninterested in the curriculum.

Another critique of current educational practice is the emphasis on education as job training or college preparation – rather than as preparation for citizenship – has contributed to a decline in civic engagement among Americans. As schools become more focused on academics and test preparation, less and less time is available to learn about contemporary issues and problems, and to interact with community members.

Even the strongest testing advocates agree that standardized tests cannot measure everything students learn, and other measures are needed to assess students' ability to synthesize existing knowledge and skills and to apply their learning in different contexts. Both advocates and critics agree that students learn best when they believe what they are learning is both important and relevant to their lives, and when they feel supported and valued by adults in the school and the community. Education reformers of nearly every stripe agree that a school climate that does not provide such support is one in which the prospects for student learning are limited.

Service-learning – community service tied to academic learning – has become a common instructional strategy in schools across the country. Senior and culminating projects – multi-dimensional projects through which graduating high school seniors demonstrate their accumulated knowledge and skills – are becoming increasingly common as well. This paper explores the challenges and benefits of combining these two educational strategies, provides examples of existing high-quality programs, and offers some questions for consideration by educational leaders and policymakers.

Senior and Culminating Projects

While standardized tests are not likely to disappear anytime soon, the recognition that they can function as a blunt-edged sword has led many reformers to advocate for other kinds of assessments to compensate for the tests' limitations. Two such models – which like any good assessment also function as teaching tools – are the culminating project and its less comprehensive cousin, the senior project.

Senior and culminating projects, completed by students in their senior year of high school, are usually designed to give students the opportunity to synthesize knowledge and skills they have gained over time, and to demonstrate what they have learned by creating something of lasting value to themselves or the community. Usually students are encouraged to use the project to conduct an in-depth study in a particular area of interest such as a career they are considering. Senior and culminating projects may include a number of different

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components, including the product created or the service they have provided, a research paper, a portfolio and/or a public demonstration or exhibition.

Senior and culminating projects are similar in that both are meant to give students the opportunity to investigate a topic of personal interest and demonstrate they have mastered certain skills and concepts. Although the terms are sometimes used interchangeably, the term "culminating project" generally implies students are expected to demonstrate knowledge and skills gained over a longer period of time – throughout high school or even their entire K-12 career – and across academic disciplines. To do this, students begin preparing for the culminating project long before their senior year. The senior project, on the other hand, is begun in the senior year and may or may not be interdisciplinary.

At their best, senior and culminating projects motivate students to take control of their own learning and give them a sense of accomplishment and an awareness of what they have learned and how far they have progressed. Upon completion of the project, students have a product that serves as evidence of their mastery of a particular topic and of their overall learning that can be used for job or college applications.

Senior and culminating projects are a good fit with current efforts to make the senior year more meaningful for students. This strategy also aligns well with the small schools movement, which often emphasizes collaborative, project-based learning. Senior and culminating projects provide the context for *authentic learning* – the pursuit of knowledge and skills for solving specific problems encountered in the process of accomplishing a larger task – rather than the kind of decontextualized learning that takes place in most classrooms.

As with any teaching strategy, quality is key. A focus group of seasoned senior project coordinators in Washington state developed the following list describing the elements of a high-quality senior project program:

1. Clear and aligned purpose – Student learning outcomes are aligned with school, district and state mission and goals.

2. Explicit, rigorous criteria – Performance is assessed by application of established criteria.

3. Student-directed learning and youth engagement – The student takes leadership for selecting, planning and implementing his/her own learning goals.

4. Clear scaffolding of skills – Students need instruction, guidance and practice for the skills that will be required in the culminating project. Some schools provide a

9-12 sequence; others include a culminating project in the elementary and middle school levels as well as in high school.

5. Learning stretch – The project poses a challenge that requires significant new learning.

6. Authentic project – Student applies core academic knowledge and skills beyond the traditional classroom setting to address a real problem or fulfill a genuine need.

7. Community involvement – Members of the broader community play an important role in culminating projects as mentors, panelists, advisors and/or resources.

8. Authentic audience – Expert individuals and community organizations knowledgeable and committed to the project's content are critical members of the audience to hear and review the project.

9. Coordination and comprehensive communication – Students, parents, community members and agencies, teachers and administrators need to clearly understand the purpose and process so they can support its success.

10. Adequate staffing and supervision – Sufficient staff to coordinate the program and provide logistical and other support to teachers, parents and community partners.

11. A mechanism for training community partners – Community partners are provided high-quality training to understand and perform their role as co-educators and authentic partners in the project.

12. A mechanism for parent involvement – Specific expectations are developed for parents and corresponding processes are available to engage them in the design, implementation and celebration of the project.

13. Ongoing professional development and program improvement – School leaders and community partners organize and support formal training sessions, reflection activities and opportunities to continuously improve the program.

14. A plan for risk management and liability – Schools and communities ensure the project takes place in a safe environment and risk is effectively managed.

15. Celebration and recognition – All collaborators are provided opportunities to be recognized and celebrate the success of the project.

While senior and culminating projects can help students become more engaged in their learning and provide teachers with a broader assessment of that learning than standardized tests, their use does not guarantee better, more supportive relationships between students and adults in the school, or that students will become more connected to and engaged in their communities. One way of making such connections more likely, however, is to include a service-learning component in senior and culminating projects.

Service-Learning

Service-learning (community service designed to help students meet specific learning objectives) is an especially effective teaching strategy that can lead to increased community involvement and deeper student engagement. Students design and implement service projects aligned with specific learning objectives, while also engaging in ongoing reflection designed to help them understand the serendipitous lessons that experiential learning provides.

Teachers and students enjoy service-learning for similar reasons: it makes learning come alive, gets them out of the classroom, allows them to work with community members and enhances the school's and the students' image in the community. Service-learning allows students to apply what they learn in the classroom to real-world problems, and it helps them become aware of and responsible for their own learning.

The very recent research on best practices in service-learning and institutionalizing service-learning (Billig, 2004, 2002; Billig and Klute, 2002; Meyer, Billig and Hofschire, 2004; Billig and Welch, 2004; Billig, Root and Jesse, 2004; Mintz and Abramovitz, 2004; and others) is beginning to show convergent results. The research collectively shows the factors within the service-learning experience that have the strongest correlations with results for K-12 students in the areas of academic performance and civic engagement are: alignment with content standards; reflection that includes multiple teaching and learning strategies for addressing advanced thinking skills within the reflection activities; direct contact with clients being served; and youth voice in planning, action, reflection and demonstration of learning.

Service-learning is an excellent strategy for reaching students at both ends of the achievement spectrum because it provides challenges and opportunities for leadership that is unavailable in the classroom. For bored and struggling students it offers an opportunity to be successful in ways that do not only depend on "book smarts." Service-learning allows these students to demonstrate they have the ability to learn and apply knowledge in different ways. Service-learning also provides students with the motivation to work harder both in and out of the classroom, as it offers some control over the content and pace of their learning and provides students with a new, ever-changing arena in which to apply their skills.

Like any teaching strategy, service-learning must be done well to be effective. High-quality service-learning includes several unique elements:

- *Youth voice/ownership.* Depending on their developmental level, students take leadership (with teacher guidance, not direction) in identifying a problem to be addressed, contacting community partners, developing a strategy and evaluating the project. This helps students recognize their own power and their responsibility to use it.

- *Genuine community need.* The service meets a legitimate need in the community. To determine the community's needs, students consult and work with community members – including those being served – rather than simply identifying an issue on their own. Working on genuine community needs helps ensure students take the work seriously because the stakes are higher and the community is watching.

- *Clear learning objectives.* Teachers help students select projects that can be linked to academic objectives and standards. The project serves as a theme around which classroom lessons are built, and as a vehicle for applying and testing knowledge and skills acquired in the classroom. Due to the interdisciplinary nature of most service-learning projects, several teachers may work together, reinforcing concepts across academic and grade-level boundaries.

- *Reflection.* Teachers engage students in discussion and written reflection on community needs, proposed solutions, challenges and successes throughout the duration of the project, not just at the end. Students are able to ask questions, voice concerns and work together to solve problems. Reflection helps teachers assess what students are learning and builds student awareness of their own development. Reflection also includes overall evaluation of the project and celebration of success.

By including these components, teachers can ensure students develop leadership skills such as planning, communication and decisionmaking, as well as academic skills specific to the project.

Service-Learning and Senior/Culminating Projects

Service-learning, as explained above, is particularly effective as a pedagogy that can be used across grades and academic subject areas to help students combine knowledge and skills with community action. Senior and culminating projects can help students take ownership of their own learning, pursue in-depth study of a topic in which they are interested and integrate what they have learned over time. The combination of these two strategies can provide a powerful learning experience for students.

Quest High School, in Humble, **Texas**, provides a good example of how these two strategies can be effectively combined. At Quest, a magnet school with a maximum enrollment of 285 students, the curriculum is based on three sets of integrated standards: "Academic Foundations," "Essential Learner Behaviors" and "Workplace Tools." To graduate, students must work in groups to complete a semester-long Senior Exhibition during their last semester at Quest. The exhibition integrates public speaking, technology and multi-

media skills, in-depth research and action on an important social issue. For the social action component, students work together to identify an issue, conduct research, consult with community-based organizations and government agencies and design, implement and evaluate a social action plan aimed at addressing their issue. Students must make a multimedia presentation of the exhibition – including the service project – to educators, students, parents and community members. Students must document the plan, its implementation, their reflection and the evaluation through a group service-learning portfolio.

Each student in the group also must complete a number of assignments related to the exhibition, including a self-portrait (in a format of the student's choice such as poetry, a video, a painting, etc.), a speech about the portrait, a journal, an analysis of their group's dynamics as related to the "workplace tools" standard, a research paper, academic samples from each discipline and several reflection assignments, including a "social action directory" and a project evaluation sheet that describes the learning objectives practiced and mastered.

Some projects completed by students include:

- Hosting a volunteer fair for students and a service-learning seminar for teachers

- Working with law students to overturn wrongful convictions

- Working with a local television station to highlight the achievements of several local minority leaders and address several issues of concern to local minority communities

- Hosting a seminar, in conjunction with Eating Disorder Awareness Week, for pre-teens, adolescents, parents and teachers on the dangers many young women face in trying to look beautiful.

At Greely High School, in Cumberland, **Maine**, students may take a humanities course during their senior year, during which they must complete a "Master Work." For some students the Master Work is a senior project, and for some it is the culmination of their four years at Greely High School, according to humanities teachers Frances Stone and John

Day. The expectation for the Master Work is students must challenge themselves in some way and learn something new. A service component is not required, but Stone and Day say more and more students are choosing projects that allow them to give back to the community.

The humanities students at Greely High School present their Master Works to the community, and between 200 and 300 community members attend the presentations over two days. Among the projects completed recently: two students designed and built a new finish line for the school track; two others built a warming hut at a local cross-country ski trail area; one student conducted a land-management and conservation study; another administered a survey and conducted a study of ways the school district could conserve money.

Washington state, which requires students to complete a project to graduate, provides a number of examples of the integration of service-learning with senior/culminating projects. Students at Gig Harbor High School, for example, must engage in service that is related to their project. There is no required number of service hours, but the service must have a measurable impact on the community and students must provide evidence they have successfully completed their service. At Ridgefield High School, students must complete 20 hours of community service to graduate. In addition, they must produce a 10-page paper, give a 15-minute presentation before community judges and develop a portfolio on their project, which includes a journal, a daily activity log, pictures, reflections and an evaluation from each student's mentor.

Washington state's graduation requirement (WAC 180-51-061) is relatively rare. **Pennsylvania** is the only other state in which a culminating project is required for graduation (22 PA ADC § 4.24). **Oregon**'s State Board of Education recently established a requirement that, starting with the class of 2007, graduates must provide evidence they are "able to apply and extend academic and career-related knowledge and skills in new and complex situations appropriate to the student's personal, academic, and/or career interests and post-high school goals." A few other states, including **Kentucky** and **Hawaii**, offer special diplomas or certificates for which projects are required. In all cases, the state may provide guidance, but specific requirements for the project are left up to local school districts.

Challenges

No teaching or assessment strategy is without challenges. Some of the challenges of incorporating service-learning into senior/culminating projects are similar to those faced by any new educational strategy:

- *Time* – Teachers are frequently assigned new tasks when the latest educational reform strategy is adopted at the school or district level, often without being relieved of any of their existing responsibilities. Giving teachers responsibility for supervising students working on their senior or culminating projects and assessing those projects without also providing administrative and logistical support and a reduction in instructional or administrative responsibilities is likely to affect the quality of program implementation. It may be necessary to set aside time for teachers and coordinators to work together, especially if the culminating project is interdisciplinary or truly cumulative across grades. Whether a coordinator is assigned or teachers are given extra preparation time, the program is much more likely to succeed if teachers have the time to learn about best practices and fulfill their responsibilities.

Students also need time designated for project work. If the project is associated with a course, time can be provided for students to work and consult with teachers and one another. This also makes it easier to reinforce the links between the project and the learning goals.

> At Quest High School students engage with the community each Wednesday while teachers work together on planning, implementing and sustaining high-quality projects. Teachers are provided this formal opportunity to reflect and continuously improve their practices.

- *Capacity for student support* – A senior or culminating project will likely be the most complex and difficult academic task students have undertaken. Schools and teachers will need to help students understand the importance and scale of their task. Students will need help developing a plan and a timeline and sticking to it. They will need help identifying and initiating relationships with mentors and community partners who have expertise in their topic area. They will need help gathering the components of the project over a semester, a year or even several years. Some students may choose topics for which they will need help identifying or creating relevant service opportunities. If a public exhibition or presentation is required, students will need help preparing and practicing.

- *Ensuring equal support for all students* – Some students are privileged to have parents with social networks that students can engage; other students are less connected to their community. Schools and teachers will need to provide diverse support systems for students, so every student has an opportunity to explore many community opportunities and select a project that has meaning to them and the community.

- *Clear expectations* – Without clear project guidelines and assessment criteria, students may not produce quality work that is meaningful for them and useful to the community. Evidence from Washington indicates that in programs that do not provide strong guidance, and in which the connections to standards are not clear, students often consider culminating projects a waste of time. Assessment criteria also must be clear and applied equitably, especially if multiple teachers or community members are involved in the assessment process.

- *School and community collaboration* – The culture of schooling is not generally collaborative. The organization of most high schools into departments does not support interdisciplinary work, and in many cases high school teachers view their own subject area as something that must be protected from those who seek to dilute it. Many veteran teachers at all levels, having experienced numerous reform initiatives and a succession of administrators throughout their careers, attempt to preserve some measure of control over their work by focusing on their own classrooms and shutting out what they see as outside attempts to influence their teaching. Many teachers simply do not have time to figure out how to collaborate across subject area lines. And although the developmental nature of education would seem to invite collaboration among teachers from grade to grade, this often does not happen either, especially when the elementary, middle and high schools are in different buildings. To ensure quality, school districts should emphasize the integrative and cumulative aspects of senior/culminating projects, and should find ways to support teacher collaboration.

- *Student resistance* – For some students, a service component may make the experience of developing a senior or culminating project more meaningful. Others may resent being "forced" to do service. The key is to make sure to connect the service experience to students' job or higher education aspirations, and to help students understand that while volunteering is optional, service to one's community is the duty of every citizen.

  Students also may resist if they believe teachers are not allowing them enough control over the project. Teachers and other staff should understand their role is to provide guidance, not direction. This means negotiating a difficult balance between ensuring students choose a topic that gives them a lasting sense of accomplishment and allowing students to make their own choices.

While these challenges are not insignificant, they can be addressed by involving teachers, administrators, staff, students, parents and community members in the development of the senior/culminating project initiative. With these challenges in mind, a well-designed program should include the elements listed in the previous section, with particular emphasis on:

- Time for teachers to learn, collaborate with each other and provide support to students; and time for students to work on their projects and seek assistance from teachers and community partners.

- A clearly defined process, including benchmarks and expectations for students, and specific staff assigned to provide support to students. Benchmarks and assessments should be pegged to academic standards and the district's mission.

- Professional development to help teachers learn to facilitate rather than direct student learning.

Questions To Consider

Education decisionmakers should consider a number of questions when deciding how to implement a senior/culminating project program that includes service-learning. Because Washington has instituted a statewide culminating project requirement, the Washington State Board of Education offers several "essential questions" for districts to consider when developing their culminating project policy. The following are based on the Washington questions, but also include important considerations for districts contemplating a service-learning component.

1. Will the purpose of the program be a senior project or a culminating project?

2. How will you ensure students, parents and teachers are aware of students' responsibility to accumulate evidence for the project over an extended period of time?

3. How will the senior/culminating project support students' transition to work or postsecondary education?

4. How will the senior/culminating project showcase students' academic competencies? Will students be allowed to work together?

5. How will you involve your community? Do teachers understand how to cultivate community partnerships? How will you train community partners?

6. Do your students, teachers and parents have sufficient understanding of and experience with project-based, student-driven learning to support senior/culminating projects that include a community-based learning component? If not, how will you ensure they acquire the necessary knowledge and skills?

7. How will you ensure:

   • Project assessments are valid (that they accurately measure the effects of the project on student learning) and reliable (that the criteria for grading student work are uniformly applied by different teachers)?

   • There is an effective student or parent appeal process in place?

8. What are the components of the project, and who is responsible for assessing each of the following:

   • Research paper

   • Service project

   • Portfolio

   • Public presentation/exhibition.

9. Who will manage the program at the building and district levels?

10. Will students with special needs be required to complete a project? Will there be different requirements for these students?

Recommendations

To address the above questions and challenges districts may encounter in creating a senior or culminating project program, the following recommendations are offered:

• Make sure students have access to adult mentors with expertise in the students' area of interest. Do not assume mentors understand how to work with students; make sure mentors are properly trained.

• Seek input from the community on issues that students might address through the service component of their projects to ensure the service meets a genuine community need. Provide guidance and support to students in conducting a community needs/assets assessment.

• Provide clear, consistent guidelines for students while allowing them as much autonomy as possible in choosing a topic and developing a plan to implement the project.

• Project guidelines should reflect an emphasis on the cumulative nature of learning. Students and parents should be made aware the project must demonstrate learning acquired throughout students' K-12 education. Teachers from elementary through high school should understand their roles in helping students provide evidence to demonstrate students' accumulated learning.

• Teachers must make sure students have a clear understanding of what they want to learn and how the project will help them learn and demonstrate it. Students' project plans should include clear learning objectives, benchmarks and strategies for using the final products and exhibition to demonstrate what they have learned. Thus, the projects should align with state and district content standards and civic outcomes.

• Develop clear assessment criteria, and make students and parents aware of the criteria. Make sure these assessments accurately measure student learning and are applied equitably to all students.

• Make sure the service component is not an add-on (e.g., a 40-hour community service requirement), but is connected to standards and to students' own learning objectives.

Conclusion

Most Americans agree that today's competitive global economic system requires students be equipped with strong academic and workplace skills. To ensure young people acquire these skills, schools must maintain high standards, and they must continue to monitor students' progress toward those standards through a variety of assessments. And standardized tests are probably necessary to ensure all schools hold students to high standards.

But as more and more pressure is placed on schools to prepare young people to compete with one another in college and the job market, it is important to remember public schools serve an additional function, which some would say is even more important, to bring together American citizens and immigrants of all backgrounds to learn what it means to be an American. One uniquely American tradition is our system of representative democracy, and the success of that democracy depends on the active participation of citizens.

The strength of our communities depends on the active participation of the members of those communities. To preserve our democracy and our communities, schools must provide every generation with the opportunity to acquire the knowledge, skills and dispositions of citizenship.

The combination of senior and culminating projects with service-learning offers one way to help students acquire high-level intellectual skills and to apply academic knowledge and skills to real-world problems. It offers students an opportunity to engage in in-depth investigation of important issues, and to take action on those issues. It offers teachers a more interesting and challenging alternative to traditional methods of assessment. Finally, the combination of senior and culminating projects and service-learning offers communities an opportunity to help cultivate engaged community members and future leaders.

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Resources

Corporation for National and Community Service – Learn and Serve America, www.learnandserve.org

Learning In Deed, http://learningindeed.org

National Service-Learning Clearinghouse, www.servicelearning.org

National Service-Learning Partnership, www.service-learningpartnership.org

National Youth Leadership Council, www.nylc.org

Project Service Leadership, www.projectserviceleadership.org

Quest High School, Humble, Texas, www.humble.k12.tx.us/QHS_profile.htm

Senior Project at SERVE, Inc., www.serve-inc.org/seniorp

Washington State Board of Education – Statewide Culminating Project Guidelines and Resources, www.sbe.wa.gov/culminating%20projects/guidelines.htm

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The Education Commission of the States (ECS) National Center for Learning and Citizenship

The ECS National Center for Learning and Citizenship (NCLC) assists state and district policymakers and educators developing policies that support K-12 school-based service-learning opportunities. These educational experiences help students acquire the skills, values, knowledge and practice necessary to be effective citizens. The NCLC identifies and analyzes policies and practices that support effective citizenship education, creates and disseminates publications for education stakeholders, and convenes meetings to develop a collective voice for citizenship education and civic mission of schools. NCLC also encourages policy support and system structures to integrate service-learning into schools and communities. For more information, contact Terry Pickeral, NCLC executive director, 303.299.3636 or visit www.ecs.org/nclc.

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