Executive Summary

Results from a Two-Year Study of the Effects of Extended Learning Opportunities on Student Outcomes in New Hampshire

Prepared by Research for Action

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EFFECTS OF EXTENDED LEARNING OPPORTUNITIES ON STUDENT OUTCOMES IN NEW HAMPSHIRE

In brief

Extended learning opportunities are designed to expand the curriculum in powerful ways, separating learning from traditional school schedules and providing diverse students with varied and engaging contexts for acquiring new knowledge and skills. These “anywhere, anytime” learning opportunities can be developed through workplace apprenticeships, online courses, independent studies, performance projects, internships and more.

New Hampshire has become a leader in this innovative approach to schooling. In 2005, the state moved to a competency-based education model, requiring districts to define course-level competencies so that credits could be awarded based on mastery rather than time spent in class. In 2008, the New Hampshire Department of Education spearheaded a related extended learning opportunities (ELO) initiative, supporting schools to put competency-based education into practice through more flexible credit-bearing course formats. Credit-granting ELOs are now offered by a majority of school districts in the state, making New Hampshire rich territory for exploring how varied approaches to extended learning affect student learning.

Research for Action conducted a two-year, statewide study to examine how a range of implementation factors influence student participation in ELOs in New Hampshire as well as the impact on short- and long-term learning outcomes. The study places particular emphasis on understanding how well ELOs can serve marginalized and underperforming student populations.

A Variety of Models and Content Areas

While every New Hampshire school district is now required to articulate ELO policies and expectations, the state strongly favors local control and allows districts to define and shape their own ELO programs. The result is tremendous variation.

Researchers reviewed data from 6,219 ELOs covering 23 different subject areas. Almost 75 percent were offered via a New Hampshire-based online provider, the Virtual Learning Academy Charter School. The remaining 25 percent were school-facilitated—developed by individual schools and districts— and fell into three distinct types:

- On-site: advanced language courses, independent research projects, career exploration, and electives completed at the school during or after regular school hours.
- Off-site: work study courses completed in partnership with nonprofits, local businesses, and universities.
- Online: courses completed in an online format developed and/or selected by the school.
The school-facilitated and virtual ELOs completed in 2014-2015 covered 23 different subject areas. (All ELOs were assigned a subject code using subject area classifications provided by the Institute of Education Sciences.) The following table shows the proportion of ELOs that were completed for 10 of these subject areas; and the remaining 13 subject areas are reported in aggregate as “other.”

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>School-facilitated</th>
<th>Virtual</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language and Literature</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Life and Physical Sciences</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Social Sciences and History</td>
<td>9</td>
<td>22</td>
</tr>
<tr>
<td>Physical, Health, and Safety Education</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Foreign Language and Literature</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Fine and Performing Arts</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Health Care Sciences</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Hospitality and Tourism</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Public, Protective, and Government Services</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>38</td>
<td>6</td>
</tr>
</tbody>
</table>

The total number of ELOs is 6,219, with 1,595 (25.65%) being school-facilitated and 4,624 (74.35%) being virtual.
Defining Quality in Extended Learning Contexts

Research for Action identified 11 high-quality implementation indicators for ELOs that cut across subject areas, formats, and other local variations. These features were drawn from a review of existing literature and corroborated with data from interviews and reports by the New Hampshire Department of Education.

<table>
<thead>
<tr>
<th>High quality ELO implementation indicators</th>
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<tr>
<td><strong>District/School Level</strong></td>
</tr>
<tr>
<td>1. School administrator who demonstrates commitment to the initiative</td>
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<tr>
<td>2. Allocated funding</td>
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<td>3. Designated, paid coordinator</td>
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<tr>
<td>4. Active membership in statewide coordinators’ group</td>
</tr>
<tr>
<td>5. Teacher commitment</td>
</tr>
<tr>
<td>6. Multiple course types available</td>
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<tr>
<td>7. Active relationships with community partners</td>
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</tbody>
</table>
Study Design

Research for Action used a mixed-methods analysis to examine ELO trends across a broad sampling of schools over two years.

Data Collection

Statewide survey: 45 high schools (of 87 contacted) responded to a survey asking them to report on their ELO practices in 2014-15.

Deeper dive: 22 high schools agreed to participate in a more extended study, providing course data and access to individual student data via state databases.

Analyses

The research team conducted three major analyses.

Descriptive profile: Data from the 22 deep dive schools provided an illustration of the variety of ELO formats and subjects offered, relative popularity of each, as well as the characteristics of students taking them.

Predictors of participation: Researchers looked at whether the presence of quality implementation indicators influenced a student's likelihood of participating in ELOs and the total number of ELOs taken. The data set included 12,195 students in grades 10, 11, and 12 from the 20 schools that completed both the statewide survey and the deep dive analysis.

Impact on student outcomes: Researchers examined 9 short- and long-term outcomes for 11th and 12th grade ELO participants:

- average daily attendance
- out-of-school suspensions
- total number of credits taken
- on-track-to-graduate indicator
- participation in the PSAT
- participation in the SAT
- composite SAT score
- successful graduation
- college enrollment

They used a propensity score matching technique to compare ELO participants with demographically and academically similar non-participants, determining the degree to which ELO participation influenced each outcome. A similar analysis was conducted for economically disadvantaged students and for those who scored in the lowest quartile on the state’s 8th grade assessments.
Findings

Researchers noted widespread uptake of ELOs across New Hampshire high schools, with varied course types suggesting that schools have largely been successful in broadening the curriculum to meet diverse learners’ interests.

Two implementation factors had a significant influence on student participation in ELOs:

- a designated coordinator who actively participates in a statewide network of peers
- active relationships with community partners

Participating in school-based ELOs has a strong, positive effect on several learning outcomes, and researchers found a greater number of positive outcomes for students who participated in school-designed ELOs than those who participated in virtual ELOs through the Virtual Learning Academy Charter School.

- **Academic commitment**: Students participating in at least one school-based ELO were more likely than non-participants to accumulate credits and be on track to graduate. Economically disadvantaged participants were also more likely than their peers to be on track to graduate high school, and previously low-performing students participating in school-designed ELOs accumulated more credits than their non-ELO taking peers.

- **Postsecondary aspirations**: Students taking school-designed ELOs were more likely to take the PSAT. Participants in both school-designed and virtual ELOs were more likely to take the SAT as well; this finding also held true for economically disadvantaged students.

- **Postsecondary preparedness**: Twelfth-grade students who participated in school-designed ELOs scored higher on the SAT and were more likely to enroll in college than non-participants. Economically disadvantaged and academically low-performing 12th graders also scored higher on the SAT than their non-ELO taking peers. Low-performing students who participated in a virtual ELO were more likely to be enrolled in college six months after graduation compared to non-participants.

Conclusion

Research for Action found a number of promising findings from this two-year study of New Hampshire high schools. As the state’s ELO initiative matures, further studies with larger data sets can deepen our understanding of the effectiveness of these innovative course approaches and the relative impact of different ELO models.
The Nellie Mae Education Foundation is the largest philanthropic organization in New England that focuses exclusively on education. The Foundation supports the promotion and integration of student-centered approaches to learning at the middle and high school levels across New England—where learning is personalized; learning is competency-based; learning takes place anytime, anywhere; and students exert ownership over their own learning. To elevate student-centered approaches to learning at the high school level across New England, the Foundation utilizes a four-part strategy that focuses on: building educator ownership, understanding and capacity; advancing quality and rigor of SCL practices; developing effective systems designs; and building public understanding and demand.