AMAYS: Acquainting Metro Atlanta Youth With STEM
NSF ITEST project #1433280

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What is AMAYS?

AMAYS is:

• an introduction to ICT professions and relevant 21st century skills.

• a program for After School All Stars students.

• a curriculum that is active, authentic & hands-on.
From World Economic Forum: New Vision for Education Unlocking the Potential of Technology

21st-Century Skills

Foundational Literacies
- How students apply core skills to everyday tasks
  - 1. Literacy
  - 2. Numeracy
  - 3. Scientific literacy
  - 4. ICT literacy
  - 5. Financial literacy
  - 6. Cultural and civic literacy

Competencies
- How students approach complex challenges
  - 7. Critical thinking/problem-solving
  - 8. Creativity
  - 9. Communication
  - 10. Collaboration

Character Qualities
- How students approach their changing environment
  - 11. Curiosity
  - 12. Initiative
  - 13. Persistence/ grit
  - 14. Adaptability
  - 15. Leadership
  - 16. Social and cultural awareness

Lifelong Learning
Who are After School All Stars?

• ASAS
  • non-profit organization
  • after-school & summer programs
  • 1000+ metro Atlanta children
  • Program model has been developed, tested, implemented, and replicated
    • comprehensive, fun, safe, and aimed at school/life success

• This project
  • 5 middle schools

• Partnership history
What will students do?
Where will AMAYS take place?
<table>
<thead>
<tr>
<th>Project Activities</th>
<th>2015/2016</th>
<th>2016/2017</th>
<th>2017/2018</th>
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<tbody>
<tr>
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<td>FA</td>
<td>SP</td>
<td>SU</td>
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<tr>
<td>Advisory board meeting</td>
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<td>Research team meeting</td>
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<td>Data management infrastructure in place</td>
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<td>ICT activities designed and developed (revised)</td>
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<td>Assessment items developed (revised)</td>
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<tr>
<td>Teachers trained</td>
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<td>Volunteers identified</td>
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<td>CMS developed (revised)</td>
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<td>CMS tested</td>
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<td>CMS goes live</td>
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<tr>
<td>Pilot Phase: participants recruited</td>
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<td>Pilot Phase: pretests conducted</td>
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<td>Pilot Phase: post-tests conducted</td>
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<tr>
<td>Disseminate findings</td>
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<td>Implementation phase: participants recruited</td>
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<td>Implementation phase: pretests conducted</td>
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<td>Implementation phase: post-tests conducted</td>
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<tr>
<td>Data organization &amp; analysis</td>
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<td>TAG-Ed competition(s)</td>
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<td>External evaluator data collection</td>
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<td>External evaluator formative feedback</td>
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<td>External evaluator annual reports</td>
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<td>External evaluator final summative report</td>
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Year 1: 2015/16

• Collect baseline data (front end analysis)
  – 1 school site
  – 100 student volunteers
  – 20 ASAS teachers

• Design and develop activities

• Plan program structure

• Develop web-based learning environment
Year 2: 2016/17

• Pilot test at 2 school sites
  – 40 student volunteers
  – 1 treatment group of 20 students and one control group of 20 students

• Collect assessment and evaluation data

• Revise curriculum, program and learning environment as necessary and based on findings
Year 3: 2017/18

• Implement AMAYS at 4 school sites
  – 160 of student volunteers
  – 80 treatment and 80 control
• Collect assessment and evaluation data
• Use reports to disseminate findings
• Use reports to apply for scale up