10-2014

ECS Evaluation Survey Instruments

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Taste of Computing – Student Pre Survey

1. Gender
   ___ Female
   ___ Male

2. Grade Level
   ___ 9th
   ___ 10th
   ___ 11th
   ___ 12th

3. Race
   ___ American Indian or Alaskan Native
   ___ Asian
   ___ Black or African American
   ___ Hispanic/Latin American
   ___ Native Hawaiian or Other Pacific Islander
   ___ White

4. What grades do you usually get in math?
   ___ Mostly A’s
   ___ Mostly B’s
   ___ Mostly C’s
   ___ Mostly D’s
   ___ Mostly F’s

5. How interested would you be in majoring in each of the areas below if you went to college? Select one response for each major.

<table>
<thead>
<tr>
<th></th>
<th>Not at all interested</th>
<th>A little interested</th>
<th>Interested</th>
<th>Very interested</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Science</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Engineering</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>c. Mathematics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Computer Science</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

6. Select an option in each row for the following statements

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. There is a diversity of people working in computing-related fields.</td>
<td></td>
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</tr>
<tr>
<td>b. I am quite familiar with the kinds of computing-related work people do.</td>
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<tr>
<td>c. There are a large number of computing-related career opportunities.</td>
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</tr>
</tbody>
</table>
7. For each area below indicate how much of an expert you are:

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Little Bit</th>
<th>Somewhat</th>
<th>A Lot</th>
<th>Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Using the Internet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Email</td>
<td></td>
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<tr>
<td>c. HTML/Web design</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>d. Gaming</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>e. Microsoft Word</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>f. Microsoft Excel</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>g. Microsoft Powerpoint</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>h. Knowing how computers accomplish their tasks</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>i. Problem-solving techniques</td>
<td></td>
<td></td>
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<tr>
<td>j. Java, C, or C++ Programming</td>
<td></td>
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<tr>
<td>k. Scratch, Alice or AppInventor Programming</td>
<td></td>
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<tr>
<td>l. Robotics / Programming and building robots</td>
<td></td>
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<td></td>
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<tr>
<td>m. Computer modeling of real-life situations and analysis of data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n. Databases/Oracle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o. Graphics</td>
<td></td>
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</tr>
</tbody>
</table>
Taste of Computing – Student Post Survey

1. Gender
   ___ Female
   ___ Male

2. Grade Level
   ___ 9th
   ___ 10th
   ___ 11th
   ___ 12th

3. Race
   ___ American Indian or Alaskan Native
   ___ Asian
   ___ Black or African American
   ___ Hispanic/Latin American
   ___ Native Hawaiian or Other Pacific Islander
   ___ White

4. What grades do you usually get in math?
   ___ Mostly A's
   ___ Mostly B's
   ___ Mostly C's
   ___ Mostly D's
   ___ Mostly F's

5. How has your interest in taking another computer science course changed as a result of this computer science course?
   ___ My interest has decreased a lot
   ___ My interest has decreased a little
   ___ My interest is about the same
   ___ My interest has increased a little
   ___ My interest has increased a lot

6. As a result of this class, how has your interest in majoring in each of the areas below changed? Select one response for each major.

<table>
<thead>
<tr>
<th>Major</th>
<th>Interest has decreased a lot</th>
<th>Interest has decreased a little</th>
<th>Interest is about the same</th>
<th>Interest has increased a little</th>
<th>Interest has increased a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Science</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Engineering</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>c. Mathematics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Computer Science</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7. **Select an option in each row for the following statements about your computer science class.**

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>I gained a greater recognition of the diversity of people working in computing-related fields.</td>
<td></td>
<td></td>
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<tr>
<td>b.</td>
<td>I learned more about the kinds of computing-related work people do.</td>
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<tr>
<td>c.</td>
<td>I learned more about availability of computing-related career opportunities.</td>
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<tr>
<td>d.</td>
<td>Knowing more about Computer Science will make me better at problem-solving and critical thinking.</td>
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<tr>
<td>e.</td>
<td>This computer science class is helping me towards my goals.</td>
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<tr>
<td>f.</td>
<td>This computer science class gives me skills that help me in other classes.</td>
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<tr>
<td>g.</td>
<td>The challenge of computer science does NOT appeal to me.</td>
<td></td>
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<td></td>
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<tr>
<td>h.</td>
<td>I will need computer science skills for my future work/career.</td>
<td></td>
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</tr>
<tr>
<td>i.</td>
<td>Taking computer science classes is a waste of time.</td>
<td></td>
<td></td>
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<tr>
<td>j.</td>
<td>I will use computer science in many ways throughout my life.</td>
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<tr>
<td>k.</td>
<td>Once I start working on a computer science problem or assignment, I find it hard to stop.</td>
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<tr>
<td>l.</td>
<td>Computer science is enjoyable and stimulating to me.</td>
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<tr>
<td>m.</td>
<td>When a question is left unanswered in this computer science class, I continue to think about it afterward.</td>
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<tr>
<td>n.</td>
<td>I would rather have someone give me the answer to a difficult computer science problem than have to work it out for myself.</td>
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</tr>
</tbody>
</table>

8. **What did you like the most about this computer science class?**

9. **What changes would you suggest for the next time this computer science course is taught?**
Taste of Computing – Teacher Background Survey

1. Have you been awarded degrees or certifications in the following fields? (Select all that apply)

<table>
<thead>
<tr>
<th>Field</th>
<th>Bachelor’s</th>
<th>Master’s</th>
<th>Doctorate</th>
<th>Technical Certification</th>
<th>Teaching Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Business</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Computer Science</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>c. Engineering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Mathematics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Mathematics education</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>f. Science (any discipline)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>g. Science Education</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>h. Other, please specify</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

2. How many computer science college courses have you completed?
   ___ None
   ___ 1-2
   ___ 3-5
   ___ More than 5

3. When did you last participate in professional development (sometimes called in-service education) focused on computer science or computer science teaching? (Include attendance at professional meetings, workshops, and conferences, as well as professional learning communities/lesson studies/teacher study groups. Do not include this professional development program. Do not include formal courses for which you received college credit or time spent providing professional development for other teachers.)
   ___ In the last 3 years
   ___ 4 – 6 years ago
   ___ 7 – 10 years ago
   ___ More than 10 years ago
   ___ Never

4. What is the total amount of time you have spent on professional development in computer science or computer science teaching in the last 3 years? (Include attendance at professional meetings, workshops, and conferences, as well as professional learning communities/lesson studies/teacher study groups. Do not include this professional development program. Do not include formal courses for which you received college credit or time spent providing professional development for other teachers.)
   ___ Less than 6 hours
   ___ 6-15 hours
   ___ 16-35 hours
   ___ More than 35 hours
5. How well prepared do you feel to do each of the following in your computer science instruction? [Select one in each row.]

| a. Plan differentiated instruction for your students | Not adequately prepared | Somewhat prepared | Fairly well prepared | Very well prepared |
| b. Teach computer science to students who have learning disabilities | | | | |
| c. Teach computer science to students who have physical disabilities | | | | |
| d. Teach computer science to English-language learners | | | | |
| e. Provide enrichment opportunities for gifted students | | | | |
| f. Encourage students’ interest in computer science | | | | |
| g. Teach computer science to females | | | | |
| h. Teach computer science to students of racial or ethnic minorities | | | | |
| i. Teach computer science to students from low socioeconomic backgrounds in computer science | | | | |
| j. Teach students the relevance of C.S. in their daily lives. | | | | |
| k. Teach computer science using a guided inquiry approach | | | | |
| l. Ensure that every student in the class participates in the learning activities | | | | |
| m. Foster group interactions during the learning activities | | | | |
| n. Plan and facilitate learning activities focused on introductory computer science concepts | | | | |

6. What do you perceive as the greatest professional development needs? Please rank each need below:

| a. Training facilities and resources | Minor/ no need | Moderate need | Great need |
| b. Time for training | | | |
| c. Reimbursement for training costs | | | |
| d. Stipends for attending training | | | |
| e. Sufficient training opportunities | | | |
| f. College credit for attending training | | | |
| g. CPDUs for attending training | | | |
7. What do you believe to be the most effective methods for delivering professional development to CS teachers? Please rank each method below:

<table>
<thead>
<tr>
<th>Method</th>
<th>Least effective</th>
<th>Somewhat effective</th>
<th>Most effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. College courses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Computer-based tutorials</td>
<td></td>
<td></td>
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<tr>
<td>c. Networking with others</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>d. Online resources</td>
<td></td>
<td></td>
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<tr>
<td>e. Professional conferences</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>f. Workshops/seminars</td>
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</tbody>
</table>

8. How many years have you taught in grades K-12?

9. How many years have you taught computer science at the high school level?

10. Outside of your years teaching computer science, how many years of experience do you have working in the computing field?

11. What professional societies related to computer science and computer science education do you belong to?

   ___ Computer Science Teachers Association (CSTA)
   ___ Association for Computing Machinery (ACM)
   ___ Other, please specify

12. Please list any district, state, or national computer science education initiatives you have participated in during the last 3 years.

13. Do you use all or part of the standard curriculum as outlined in the curricular standards and models available through the CSTA web site?

   ___ Yes
   ___ No
   ___ Don't know what they are

14. Which best describes the availability of computers in your classroom?

   ___ One per student
   ___ One for every two students
   ___ One for every 3-5 students
   ___ One for every 6-10 students
   ___ Fewer than one for every 10 students
   ___ None
15. In your opinion, how great a problem is each of the following for your computer science instruction? [Select one on each row.]

<table>
<thead>
<tr>
<th>Problem</th>
<th>Not a significant problem</th>
<th>Somewhat of a problem</th>
<th>Serious problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Lack of access to computers</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>b. Old age of computers</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>c. Lack of access to the Internet</td>
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<td></td>
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<tr>
<td>d. Unreliability of the Internet connection</td>
<td></td>
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<tr>
<td>e. Slow speed of the Internet connection</td>
<td></td>
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<tr>
<td>f. Lack of availability of appropriate computer software</td>
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<tr>
<td>g. Lack of availability of technology support</td>
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</tr>
<tr>
<td>h. Other, please specify</td>
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<td></td>
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</tbody>
</table>

16. What do you perceive as the greatest challenges in teaching CS? Please rank each challenge below:

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Minor/no challenge</th>
<th>Moderate challenge</th>
<th>Great challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Lack of student interest/enrollment</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>b. Rapidly changing technology</td>
<td></td>
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<tr>
<td>c. Difficult subject matter</td>
<td></td>
<td></td>
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<tr>
<td>d. Lack of support / interest by school staff</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>e. Lack of student subject knowledge</td>
<td></td>
<td></td>
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<tr>
<td>f. Lack of curriculum resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Lack of hardware / software resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Lack of teacher subject knowledge</td>
<td></td>
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</tr>
</tbody>
</table>

17. What has been the impact of the No Child Left Behind (NCLB) legislation on your CS program?
   ____ Negative impact
   ____ No impact
   ____ Positive impact

18. Does your school offer any introductory (or pre-AP) Computer Science (CS) courses?
   ____ Yes
   ____ No

19. What content is covered in introductory CS? Check all that apply.
   ____ Human-Computer Interaction
   ____ Robotics
   ____ Data analysis
   ____ Computer Security
   ____ Databases
   ____ Ethics & social issues
   ____ Game Programming
   ____ Graphics
   ____ Hardware
   ____ Logic
   ____ Networks
   ____ Problem solving
   ____ Productivity software
   ____ Programming
   ____ Web Development
   ____ Other, please specify
20. What programming languages / software tools are used in introductory CS? Check all that apply.
   ___ Java
   ___ Alice
   ___ Visual Basic
   ___ Scratch
   ___ java script
   ___ C++
   ___ Python
   ___ Greenfoot
   ___ C#
   ___ AppInventor
   ___ Processing
   ___ Other, please specify

21. Does your school offer AP Computer Science?
   ___ Yes
   ___ No

22. How many students take AP CS?

23. What percentage of students enrolled in AP CS are female? (Skip if your school is single-sex.)

24. What percentage of students enrolled in AP CS are members of an ethnic minority?

25. Does your school offer computing courses other than introductory and AP Computer Science?
   ___ Yes
   ___ No

26. What kinds of courses?
   ___ Web design
   ___ Computer graphics
   ___ Computing communications/media
   ___ Programming
   ___ Networking
   ___ Game development
   ___ Other, please specify

27. Do the CS courses offered in your school have prerequisites?
   ___ Yes
   ___ No

28. At the school where you will be teaching, how many years of each of the following subjects are grade 9-12 students required to take in order to graduate from high school?

<table>
<thead>
<tr>
<th>Subject</th>
<th>None</th>
<th>1 year</th>
<th>2 years</th>
<th>3 years</th>
<th>4 years</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Mathematics</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>b. Science</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>c. Business</td>
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<td></td>
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<tr>
<td>d. Technology</td>
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</tbody>
</table>
29. At the school where you will be teaching, are students able to use a course in computer science as part of satisfying the graduation requirement in any of those areas?
   ___ Mathematics
   ___ Science
   ___ Business
   ___ Technology
   ___ No
   ___ Don’t know

30. Under what department is CS offered in your school:
   ___ Business
   ___ Technology
   ___ Computing
   ___ Math
   ___ Science

31. How have CS enrollments changed in your school over the past three (3) years?
   ___ Increased
   ___ Decreased
   ___ No real change

32. In your judgment, do you think there are students who should be taking or would like to take the CS course(s) your schools offers but who are not?
   ___ Yes
   ___ No

33. Why? Please rank each reason below:

<table>
<thead>
<tr>
<th>Reason</th>
<th>Uncommon</th>
<th>Somewhat common</th>
<th>Very common</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. No room in timetable</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>b. Greater interest in other subjects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Elective courses less important</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Subject matter too difficult</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. CS is perceived to be ‘geeky’</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>f. Perceived as male-dominated</td>
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<tr>
<td>g. Perception of limited job opportunities</td>
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<td></td>
</tr>
</tbody>
</table>

34. Are you of Hispanic or Latino origin?
   ___ Yes
   ___ No

35. What is your race? [Select all that apply.]
   ___ American Indian or Alaska Native
   ___ Asian
   ___ Black or African American
   ___ Native Hawaiian or Other Pacific Islander
   ___ White
36. What is your disability status? [Select all that apply.]
   ____ Hearing Impairment
   ____ Visual Impairment
   ____ Mobility / Orthopedic Impairment
   ____ Other
   ____ None

37. What is your gender?
   ____ Female
   ____ Male

38. What is your age?

39. Will you be teaching computer science at the high school level next school year?
   ____ Yes
   ____ No

40. What percentage of the courses you anticipate teaching will be CS courses?

41. What computer science courses do you anticipate teaching next school year? (Check all that apply.)
   ____ Exploring Computer Science (ECS)
   ____ CS Principles
   ____ APCS
   ____ Web Design
   ____ Other, please specify
Taste of Computing – Workshop Feedback

1. Overall as a professional development experience how satisfied are you with this workshop? Check one, then briefly explain why you feel as you do.
   ____ Very satisfied
   ____ Satisfied
   ____ Neutral
   ____ Dissatisfied
   ____ Very dissatisfied

2. Please explain the level of satisfaction you selected in the previous question.

3. What workshop activities or experiences do you feel were especially helpful for learning what was expected?

4. What workshop activities or experiences do you feel were not helpful for learning what was expected and that instructors should change or improve?

5. List the two most important outcomes of your participation in this professional development.
   First Important Outcome

   Second Important Outcome

6. Explain why those are the most important outcomes of the professional development for you.
7. At this point how confident are you that you will be able to integrate what you have learned in this workshop into your classroom?
   ___ Very confident
   ___ Confident
   ___ Somewhat confident
   ___ Not confident at all

8. Please explain the level of confidence you selected in the previous question. If you checked “not confident” or “somewhat” what needs to be done to increase your confidence level?

9. How will you use what you learned in today's PD to inform your teaching of ECS? Provide some examples.

10. Consider the various inquiry strategies that you saw implemented today. How will you try to implement those inquiry strategies in your classroom?

11. In what ways did this PD deepen your understanding of computer science content/concepts? Provide some examples.

12. How did the PD expand your understanding of equity? How will you apply this to your classroom?

13. Is there anything else you want to tell us about this workshop?
**Taste of Computing – Teacher Implementation Survey**

**Unit 1: Human Computer Interaction**

1. Did you implement Unit 1: Human Computer Interaction?
   - Yes
   - No

2. Unit 1: Human Computer Interaction (Check off all of the lessons you implemented)
   - Explore the concepts of computer and computing
   - “Demystify” and learn the function of the parts of a personal computer. Learn the terminology of
     hardware components necessary for the purchase of a home computer.
   - Explore the world wide web and search engines. Experiment with a variety of search techniques,
     internet resources, and Web 2.0, applications. Evaluate websites.
   - Examine the implications of data on society and how computers are used for communications.
   - Tell a story with data.
   - Explore how computers are used as a tool for visualizing data, modeling and design, and art in the
     context of culturally situated design tools.
   - Introduce the concept of a computer program as a set of instructions.
   - Explore the idea of intelligence—especially as it relates to computers. Explore what it means for a
     machine to “learn”. Discuss whether computers are intelligent or whether they only behave
     intelligently.

3. How successful do you feel you were in implementing this unit?
   - Not at all successful
   - A little successful
   - Successful
   - Very successful

4. For Unit 1: Human Computer Interaction, did you modify any aspects of the curriculum?
   - Yes
   - No

5. Please indicate how you implemented Unit 1 of the Exploring Computer Science (ECS) curriculum. Please
   use the table below as a reference for the curriculum schedule

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<tr>
<th>Question</th>
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<tr>
<td>Did you follow the pace recommended by the ECS manual for this unit?</td>
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</table>
6. For Unit 1: Human Computer Interaction, only if you responded yes to modifying the unit, please comment on what you did differently for each topic. Describe how it is different from the ECS curriculum and why you made the change. If you did not make a change to a particular topic, please leave it blank and move onto the next topic.
   a) Instructional Days 1-2: Explore the concepts of computer and computing.
   b) Instructional Days 3-4: "Demystify" and learn the function of the parts of a personal computer. Learn the terminology of hardware components necessary for the purchase of a home computer.
   c) Instructional Days 5-7: Explore the world wide web and search engines. Experiment with a variety of search techniques, internet resources, and Web 2.0, applications. Evaluate websites.
   d) Instructional Days 8-9: Examine the implications of data on society and how computers are used for communications.
   e) Instructional Days 10: Tell a story with data.
   f) Instructional Days 11-14: Explore how computers are used as a tool for visualizing data, modeling and design, and art in the context of culturally situated design tools.
   g) Instructional Days 15-16: Introduce the concept of a computer program as a set of instructions.
   h) Instructional Days 17-19: Explore the idea of intelligence—especially as it relates to computers. Explore what it means for a machine to "learn". Discuss whether computers are intelligent or whether they only behave intelligently.

7. Please add general comments you'd like to share about Unit 1.
**Unit 2: Problem Solving**

1. Did you implement Unit 2: Problem Solving?
   __ Yes
   __ No

2. Unit 2: Problem Solving (Check off all of the lessons you implemented)
   __ Introduce data collection and problem solving.
   __ Introduce the four steps of the problem solving process.
   __ Apply the problem solving process. Use different strategies to plan and carry out the plan to solve several problems.
   __ Reinforce the four steps of the problem solving process.
   __ Count in the binary number system. Convert between binary and decimal numbers in the context of topics that are important to computer science.
   __ Introduce the linear and binary search algorithms.
   __ Explore sorted and unsorted lists and various sorting algorithms.
   __ Introduce minimal spanning trees and how graphs can be used to help solve problems.
   __ Final projects and presentations

3. How successful do you feel you were in implementing this unit?
   __ Not at all successful
   __ A little successful
   __ Successful
   __ Very successful

4. For Unit 2: Problem Solving, did you modify any aspects of the curriculum?
   __ Yes
   __ No

5. Please indicate how you implemented Unit 2 of the Exploring Computer Science (ECS) curriculum. Please use the table below as a reference for the curriculum schedule

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6. For Unit 2: Problem Solving, only if you responded yes to modifying the unit, please comment on what you did differently for each topic. Describe how it is different from the ECS curriculum and why you made the change. If you did not make a change to a particular topic, please leave it blank and move onto the next topic.

   a) Instructional Days 1-2: Introduce data collection and problem solving. Instructional Days 3: Introduce the four steps of the problem solving process.

   b) Instructional Days 4-6: Apply the problem solving process. Use different strategies to plan and carry out the plan to solve several problems.

   c) Instructional Days 7-9: Reinforce the four steps of the problems solving process.

   d) Instructional Days 10-12: Count in the binary number system. Convert between binary and decimal numbers in the context of topics that are important to computer science.

   e) Instructional Days 13-14: Introduce the linear and binary search algorithms.

   f) Instructional Days 15-16: Explore sorted and unsorted lists and various sorting algorithms.

   g) Instructional Days 17: Introduce minimal spanning trees and how graphs can be used to help solve problems.

   h) Instructional Days 18-21: Final projects and presentations.

7. Please add general comments you'd like to share about Unit 2.
Unit 3: Web Design
1. Did you implement Unit 3: Web Design?
   ___ Yes
   ___ No

2. Unit 3: Web Design (Check off all of the lessons you implemented)
   ___ Explore issues of social responsibility in web use as well as the relative merits of the influence of
     the web on society, personal lives, and education.
   ___ Introduce the use of basic html.
   ___ Introduce basic formatting in html.
   ___ Explore image editing for the web using Photoshop or an image editor of choice.
   ___ Introduce basic css.
   ___ Explore the concept of separating style from structure by keeping separate html and css files.
   ___ Add hyperlinks to other websites.
   ___ Introduce a variety of page layout styles.
   ___ Practice the use of various design elements.
   ___ Introduce several different enhancements for website design, including web user interface
     elements combining java script, html, css, and Photoshop, accordion menus, lightbox and sliding
     images.
   ___ Final project and gallery walk

3. How successful do you feel you were in implementing this unit?
   ___ Not at all successful
   ___ A little successful
   ___ Successful
   ___ Very successful

4. For Unit 3: Web Design, did you modify any aspects of the curriculum?
   ___ Yes
   ___ No

5. Please indicate how you implemented Unit 3 of the Exploring Computer Science (ECS) curriculum. Please
   use the table below as a reference for the curriculum schedule

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6. For Unit 3: Web Design, only if you responded yes to modifying the unit, please comment on what you did differently for each topic. Describe how it is different from the ECS curriculum and why you made the change. If you did not make a change to a particular topic, please leave it blank and move onto the next topic.

a) Instructional Days 1-2: Explore issues of social responsibility in web use as well as the relative merits of the influence of the web on society, personal lives, and education.

b) Instructional Days 3-4: Introduce the use of basic html.

c) Instructional Days 5: Introduce basic formatting in html.

d) Instructional Days 6-7: Explore image editing for the web using Photoshop or an image editor of choice.

e) Instructional Days 8-10: Introduce basic css.

f) Instructional Days 11-13: Explore the concept of separating style from structure by keeping separate html and css files.

g) Instructional Days 14: Add hyperlinks to other websites.

h) Instructional Days 15-16: Introduce a variety of page layout styles.

i) Instructional Days 17-19: Practice the use of various design elements.

j) Instructional Days 20-21: Introduce several different enhancements for website design, including web user interface elements combining java script, html, css, and Photoshop, accordion menus, lightbox and sliding images.

k) Instructional Days 22-25: Final projects and gallery walk.

7. Please add general comments you'd like to share about Unit 3.
Unit 4: Introduction to Programming

1. Did you implement Unit 4: Introduction to Programming?
   ___ Yes
   ___ No

2. Unit 4: Introduction to Programming (Check off all of the lessons you implemented)
   ___ Introduce the Scratch programming language, including the basic terms utilized in the language.
   ___ Practice using the basic features of Scratch in the context of creating a simple program.
   ___ Create a dialogue between two sprites.
   ___ Introduce the methods of moving sprites in Scratch.
   ___ Practice the concept of event driven programming through the creation of an alphabet game.
   ___ Introduce the concept of broadcasting via role play.
   ___ Write Scratch stories and present them to the class. Conduct peer reviews.
   ___ Introduce the concept of variable.
   ___ Introduce the concept of conditionals.
   ___ Introduce And, Or and randomness.
   ___ Apply knowledge of conditionals to develop a Rock Paper Scissors program in Scratch.
   ___ Build on previous programming concepts to create a timer.
   ___ Create a timing game in Scratch and present it to the class. Peer reviews are conducted.
   ___ Investigate two types of games that may provide ideas for the final project.
   ___ Explain final project and the rubric for the final project.
   ___ Write Scratch programs for either My Community or Game project. Conduct peer reviews.
   ___ Complete final projects.
   ___ Presentations of final projects

3. How successful do you feel you were in implementing this unit?
   ___ Not at all successful
   ___ A little successful
   ___ Successful
   ___ Very successful

4. For Unit 4: Introduction to Programming, did you modify any aspects of the curriculum?
   ___ Yes
   ___ No

5. Please indicate how you implemented Unit 4 of the Exploring Computer Science (ECS) curriculum. Please use the table below as a reference for the curriculum schedule

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6. For Unit 4: Introduction to Programming, only if you responded yes to modifying the unit, please comment on what you did differently for each topic. Describe how it is different from the ECS curriculum and why you made the change. If you did not make a change to a particular topic, please leave it blank and move onto the next topic.

a) Instructional Days 1: Introduce the Scratch programming language, including the basic terms utilized in the language.

b) Instructional Days 2-3: Practice using the basic features of Scratch in the context of creating a simple program.

c) Instructional Days 4: Create a dialogue between two sprites.

d) Instructional Days 5-6: Introduce the methods of moving sprites in Scratch.

e) Instructional Days 7-8: Practice the concept of event driven programming through the creation of an alphabet game.

f) Instructional Days 9: Introduce the concept of broadcasting via role play.

g) Instructional Days 10-13: Write Scratch stories and present them to the class. Conduct peer reviews.

h) Instructional Days 14: Introduce the concept of variable.

i) Instructional Days 15: Introduce the concept of conditionals.

j) Instructional Days 16-17: Introduce And, Or and randomness.

k) Instructional Days 18: Apply knowledge of conditionals to develop a Rock Paper Scissors program in Scratch.

l) Instructional Days 19: Build on previous programming concepts to create a timer.

m) Instructional Days 20-23: Create a timing game in Scratch and present it to the class. Peer reviews are conducted.

n) Instructional Days 24: Investigate two types of games that may provide ideas for the final project.

o) Instructional Days 25: Explain final project and the rubric for the final project.

p) Instructional Days 26-28: Write Scratch programs for either My Community or Game project. Conduct peer reviews.

7. Please add general comments you'd like to share about Unit 4.
Unit 5: Computing and Data Analysis

1. Did you implement Unit 5: Computing and Data Analysis?
   ___ Yes
   ___ No

2. Unit 5: Computing and Data Analysis (Check off all the lessons you implemented)
   ___ Review how data can be used for making a case/discovery and provide an overview of the final project.
   ___ Discuss photo ethics and student safety related to android phone use.
   ___ Distribute phones. Create groups. Discuss group roles and responsibilities. Navigate the android application. Navigate the online system.
   ___ Data check-in—Discuss issues that arise (aggregating data, etc.).
   ___ Introduce R/Deducer. Create maps using the latitude and longitude of a location and then create maps from a file of data.
   ___ Create maps with student data and related data set.
   ___ Discuss bar plots, categorical and continuous data, and mosaic plots as a vehicle for comparing categorical data, and looking at trends in data.
   ___ Create bar plots and mosaic plots with student data and related data set.
   ___ Review mean, median, minimum, maximum. Discuss various ways to subset data. Represent data with box plots and histograms.
   ___ Identify mean, median, minimum, maximum, create subsets, and create box plots and histograms with student data and related data set.
   ___ Use a variety of filters and queries to create subsets of text data. Create bar plots to graphically display the information.
   ___ Analyze text in student data and related data set.
   ___ Finalize data analysis for final project.
   ___ Develop website or Scratch program to present data analysis campaign.
   ___ Final project presentations

3. How successful do you feel you were in implementing this unit?
   ___ Not at all successful
   ___ A little successful
   ___ Successful
   ___ Very successful
Unit 6: Robotics

1. Did you implement Unit 6: Robotics?
   ___ Yes
   ___ No

2. Unit 6: Robotics (Check off all of the lessons you implemented)
   ___ What is a robot? Identify the criteria that make an item a robot.
   ___ Evaluate robot body designs and create algorithms to control robot behavior.
   ___ Set up LEGO® Mindstorms® NXT® kit.
   ___ Build robot base.
   ___ Introduce the features of NXT Brick—the “brain” of the robot.
   ___ Introduce the features of the Mindstorms NXT software.
   ___ Program the robot using the Mindstorm Robot Educator Software tutorials.
   ___ Introduce RoboCup real life robotic competition and write instructions for tic-tac-toe.
   ___ RoboTic-Tac-Toe Tournament and introduction to RoboCupJunior Dance Challenge.
   ___ Build, program, and present a dancing robot.
   ___ Build program and present a rescue robot.
   ___ Final projects and presentations

3. How successful do you feel you were in implementing this unit?
   ___ Not at all successful
   ___ A little successful
   ___ Successful
   ___ Very successful
1. The professional development workshop training you received adequately prepared you to implement the curriculum.
   ___ Strongly disagree
   ___ Disagree
   ___ Agree
   ___ Strongly agree

2. Based on your experience with this curriculum, what changes would you recommend for future professional development training workshops?

3. How likely are you to recommend the Taste of Computing to one or your colleagues?
   1 2 3 4 5 6 7 8 9 10
   Not at all likely

   Definitely