**CALIFORNIA STATE LIBRARY**  
**LIBRARY SERVICES AND TECHNOLOGY ACT (LSTA)**

**Final Program Narrative Report**  
*(LSTA Form 9)*

## Grant Information

<table>
<thead>
<tr>
<th>Library Jurisdiction</th>
<th>Sonoma County Library</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Title</td>
<td>Coding Camp for Kids: Minecraft Mods</td>
</tr>
<tr>
<td>Grant Award #</td>
<td>40-8331</td>
</tr>
<tr>
<td>Grant Period</td>
<td>FY 13/14</td>
</tr>
<tr>
<td>Amount of Grant Award</td>
<td>$6,000</td>
</tr>
<tr>
<td>Amount of Grant Expended</td>
<td>$5,996</td>
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<tr>
<td>Local Match</td>
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</tr>
<tr>
<td>In-Kind</td>
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</tr>
<tr>
<td>Total Amount of Project</td>
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</tr>
<tr>
<td>(amount expended + match + in-kind)</td>
<td></td>
</tr>
<tr>
<td>Number of Persons Served</td>
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</tr>
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</table>

## Project Director

<table>
<thead>
<tr>
<th>Name</th>
<th>Rebecca Forth</th>
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<tbody>
<tr>
<td>Title</td>
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</tr>
</tbody>
</table>

This report is due on the date listed in the LSTA Grant Guide for this project. Follow this link to view the Grant Guide.  
[http://www.library.ca.gov/grants/lsta/manage.html](http://www.library.ca.gov/grants/lsta/manage.html)

Email this report in “word format” to lsta@library.ca.gov then mail ORIGINAL and 2 copies to:

California State Library  
P.O. Box 942837  
Sacramento, CA 94237-0001  
Attention: Fiscal Office - LSTA

**SIGNATURE: ________________________________  DATE: ________________________________**  
(Please sign in blue ink)
Project Final Report
A final narrative report is required on the use of federal Library Services and Technology Act (LSTA) funds following the completion of a project during each project year. The information you report will be used to complete the California State Library report of how funds were expended. Excerpts from this report may be submitted to the Federal government in their evaluation, or may be published by the State Library or shared with other institutions. Please answer all of the questions thoroughly. Please attach any reproduction copies of photographs of project activities or media produced for the project.

Project Purpose
Include your program purpose statement here

The purpose of the Coding Camp for Kids is to teach 30-36 middle school age children, ages 11-14, to modify the game Minecraft through an introduction to the programming language Java. Minecraft is a popular virtual reality game that allows players to build, explore, and interact in a three-dimensional world; gathering resources, crafting virtual objects, and engaging with other players. Minecraft is an open world game that has no specific goals for the player to accomplish, allowing players a large amount of freedom in choosing how to play the game. If you are not familiar with the game, it is like a limitless set of legos. Players can build anything they can imagine—even designing their own bricks. Game play can range from a solo building activity in a private space to collaborative building with other players to designing strategic battle plans and tools for engagement with fellow gamers.

Minecraft is an ideal platform for this program’s purpose because it is analogous to a "hot rod" within 21st century technology instruction. It is a highly popular game, especially so among the middle-school age group. In the same way that generations of 20th century teens were highly motivated to learn automotive technology because they wanted to drive fast, 21st century pre-teens are highly motivated to internalize computational technology because they want their Minecraft avatars to have the coolest gear, the most effective mining tools, the most innovative creations. Like the mid-20th century automobiles beloved by hot-rodders, the Java code running Minecraft is easy to modify and is universally adopted to serve millions of uses around the world.

By teaching the skills of "souping up" Minecraft, this program-like-no-other will help Sonoma County youth practice real-world skills that are highly desired by fast-growing Sonoma County tech firms hungry for software-savvy talent.

The program will introduce beginning programming skills and concepts to the participants, demonstrate development tools and environments, and teach Java basics. Participants will leave the program with an increased knowledge of computer software, an understanding of how code is written and edited, and experience working in a collaborative environment to create content. This project will be translated into a turn-key plan that can be used to replicate the program at other public libraries.

The long-term goal of the project is to create a program to teach coding to middle-school students and to begin a strategic program of technology sector skills education to meet the workforce growth needs of Sonoma County—and ultimately the needs of California as a whole.

Project Activities and Methods
How did you accomplish the project? What were the steps involved? How did you engage the target audience?

In consultation with a professional programmer, I developed a course curriculum and hardware and software needs. Additional hardware and software was purchased to meet the needs of the workshops. I worked with library staff to determine the best time frames and locations for the workshops, and scheduled these. Based on the needs assessment conducted at the beginning of the grant project, I created success metrics and methods of assessment, including an online survey and pre and post workshop assessment tests. I created and executed a marketing plan, using printed materials, social media promotions, press releases, and outreach. Three 15-hour workshops were conducted over a period of four months. Outreach to a local college and university yielded a group of computer science interns who assisted during the workshops.

Project Outputs
What was created for the project and how much? (For instance three promotional brochures were created and 75 copies distributed; or three training classes were designed; two sessions of each were held, and 80 people were trained)
The project outputs include output #1: the implementation and assessment of three scheduled sessions, during which a total of 34 participants learned basic programming concepts, methods, and terminology. Output #2, the structure of a turn key project plan to be shared at other libraries has been developed. The plan will be most useful if additional development time can be allocated. The train-the-trainer concept has been integrated, and has been successful in training interns at Sonoma County Library. A previously undefined output related to this is the development of a core group of eight interns. These interns have learned the curriculum and are able to continue this program here at a lower cost than was possible with a professional programmer.

### Project Outcomes (if applicable)
Please state the outcomes and the results of your evaluation.

**Outcome 1 (100% of participants will learn how to write Java code):** the actual outcome was closer to 92%. The programs are open to all kids, ages 11-14, and sign ups were on a first come, first served basis. In both workshops, participants fell along the entire spectrum of learning ability, in some cases requiring a dedicated teaching aide.

**Outcome 2 (90% of participants will learn to create modifications in the game Minecraft):** the outcome exceeded the goal; 100% of participants were able to demonstrate this new skill.

**Outcome 3 (90% of participants will report an increase in ability and confidence with technology):** the results again exceeded the goal; 97% of participants reported and demonstrated an increase in ability and confidence with technology.

### Additional Project Outcomes
Please state any additional intended or unintended outcomes and what data sources you used.

Unintended outcome 1: development of a core group of workshop interns who have enabled the continuation of the project after the end of the grant period. The outcome may be stated as 88% of interns demonstrated the ability to assimilate and teach the project curriculum. Assessment was measured by observation and by participative curriculum development.

Unintended outcome 2: development of an additional curriculum module that teaches a graphic image manipulation program, allowing participants to create and call files in the game code. Assessment was by observation: 100% of participants were able to create new graphic files and integrate them into the game. Of note was the breadth that this added to the curriculum, facilitating a successful experience for multiple learning types.

Unintended outcome 3: development of drop-in sessions, providing broader access to the community. Due to the overwhelming demand for these workshops, I created all-ages drop-in sessions on the last day of each workshop. Participants enrolled in the 15 hour workshops were given the opportunity to present their work and teach their peers. 80% of enrolled participants demonstrated their work to their peers. 200% more kids were able to participate in the workshops based on these drop-in sessions. Assessment measures included observation and attendance statistics.

### Anecdotal Information
Tell us a story. Give two or more examples of how the project has helped an individual or group in your community.

What I saw were faces lighting up, what I heard were gasps of amazement, what I observed was collaboration between kids who had not previously met, what I experienced were kids running up to me after the first days saying things like, "this is the awesomest [sic] thing I've done all year."

Success story one: Delaney and Yasmin loved Minecraft, but had never done any modding. The only girls in the first workshop, they were engaged and participative, but were initially clearly somewhat intimidated by the roomful of boys. By the end of the workshop, these two girls were completely at home, creating mods like professional developers and helping other workshop participants. Their pre-workshop assessments indicated that they felt more comfortable with technology as a result of the class. Delaney updated her desired career from soccer coach to "something with technology" and Yasmin, from "engineer or comedian" to "engineer." These two girls are now involved in an online invite-only modding group of their peers in Sonoma County.
Success story two: Blake, Brandon, and Sean were enrolled in a Santa Rosa Junior College Java course when they learned about the internship opportunity. All three had some Minecraft experience and varying levels of Java and other coding experience. Of the three, Sean was the only one with experience around kids, and none of them had much familiarity with teaching or making public presentations. By the end of the workshops, all three reported that their participation greatly enhanced their understanding of the curriculum in their college classes. Additionally, the engaged in both playful exchanges with youth participants in the modding workshops and provided advanced level one on one tutoring with individual participants. By observation and by interview, the presence of these interns enhanced the experience of the workshops for participants.

Exemplary Project
If you feel your project was exemplary and others could learn from it and replicate it, please tell us why.

Yes, I do feel that my project was exemplary, as it provides a format and curriculum that can be shared easily with other libraries. I am working now on refining the documents and materials that I have developed to enable other libraries to start their own coding programs. This has the potential of maker spaces or programs like Discover & Go in its portability and relevance to other communities.

FEEDBACK FOR THE CALIFORNIA STATE LIBRARY ON THE GRANT PROCESS
We want to learn and improve our grant processes. Please let us know what worked and what we could do differently to make it a better experience. Thank you!

The grant process was a positive experience, and I appreciated the opportunity to work with a member of the California State Library staff. A few things might make the grant year more successful, including regular webinars, a group interaction platform on which grant recipients can interact online, and a platform for tracking progress.

file:mcp/lsta/managegrant/1314