

PLP Grant Replication Program Application (Category B)

1. One paragraph project summary, including description of the unique aspects of the project.

The Library proposes creating a self-contained virtual reality program cart. The cart would contain all of the equipment necessary for users to experience virtual reality software. We think that the appeal of a virtual reality cart would enable us to interest teens in a pilot coding club program. The exposure to virtual reality technology could serve as a stepping stone to careers in technology, science, and coding.

2. Explain what grant was selected to replicate and why.

Our grant replicates a portion of South San Francisco's Digital Media Lab for teens. We currently do not have enough space at the Belle Haven branch library to dedicate to a full digital media lab, so we want to create a portable virtual reality cart that can be brought out for programs and then stored away. The cart model would also enable us to more easily take programs out into the community for school visits, since it would self-contained and could be loaded into a City van.

South San Francisco staff report that their set up is easily taken to outreach events. They confirmed that their virtual reality rig is the most popular component of their lab set-up, and passed along recommendations on popular programming (creating objects using the VR rig and a sculpting/building app like Medium, then allowing users to 3-D print the results) and policy and operational issues (restrictions based on user age are a pain point; adapting the equipment so that it is hygienic for multiple users is an operational issue identified), South San Francisco staff were open to sharing information moving forward.

3. Explain how this project fits with the library's strategic directions.

The library's strategic plan includes these applicable two goals:

Goal 3.3: Target library services, programs and resources efficiently and where they are most effective
3.3d Continue to develop services and programs for teens at both library locations.

(Source: <https://www.menlopark.org/DocumentCenter/View/22375/Library-Strategic-Plan-Update-2019-2020>)

In addition to meeting these goals, the proposed project addresses an aspiration expressed by Belle Haven community members during focus group discussions and community meetings for the new branch library.

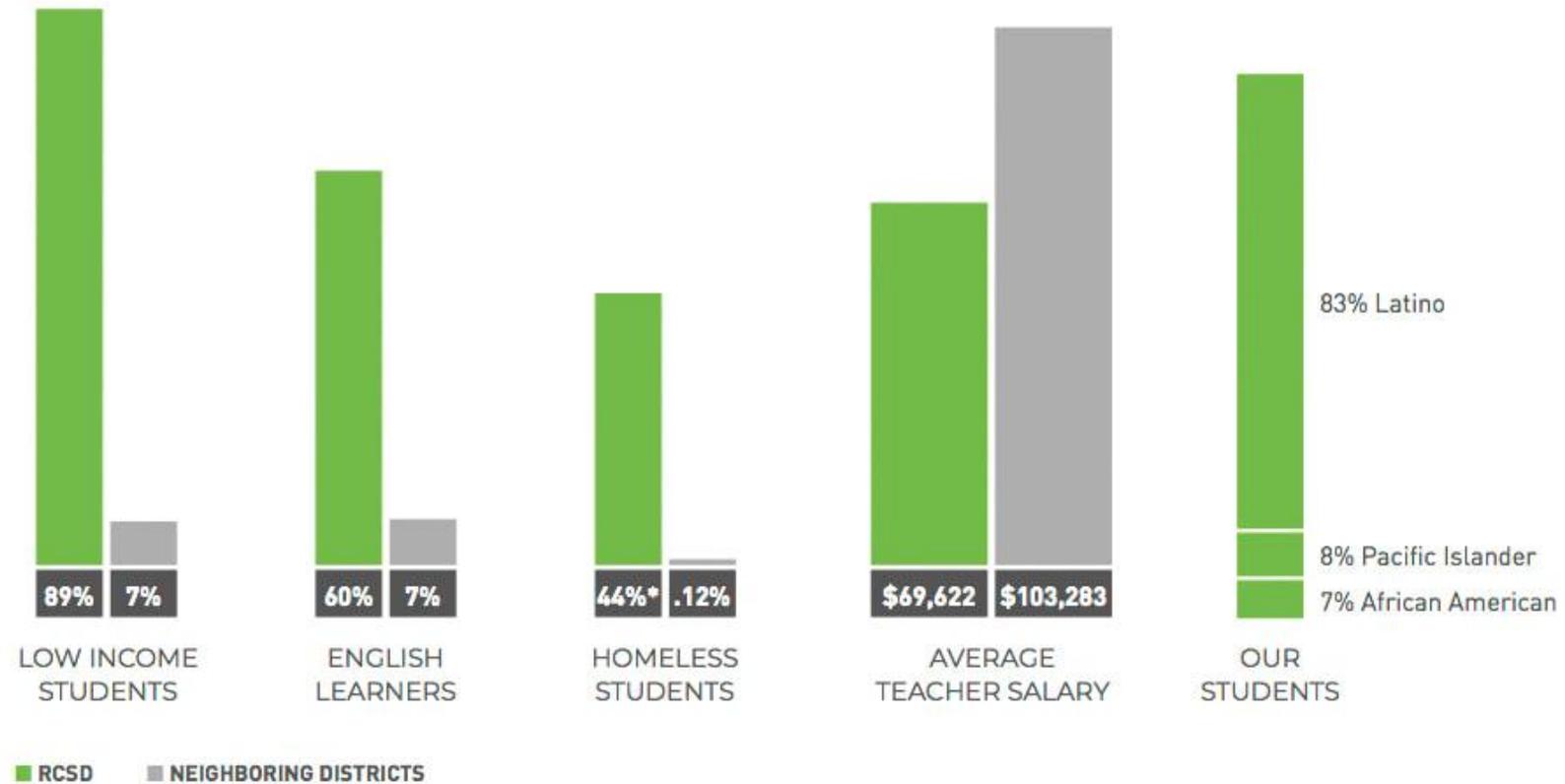
4. A detailed description of the proposed project including the population served and the demographics of that population.

The Library proposes creating a Virtual Reality Cart for the use of teens at our branch location. The branch library serves a neighborhood that is geographically isolated from the rest of Menlo Park – the neighborhood is a residential triangle bordered by three major thoroughfares: Highway 101, the Bayshore Freeway, and Willow Road. Facebook has recently expanded its footprint in the M-2 District that adjoins Belle Haven, but that proximity has not yet translated into opportunities for neighborhood residents, who are suffering the negative impacts of increased traffic and displacement.

There are educational and economic disparities between the Belle Haven neighborhood and Menlo Park as a whole. Student achievement in the Ravenswood City School District (which serves K-8 students in Belle Haven) lags far behind that in the Menlo Park City School District. The following chart is from the Ravenswood Education Foundation, and compares student demographics in the Ravenswood District with those in surrounding K-8 districts.



DEMOGRAPHICS



Source: www.ed-data.org, 2016-2017 school year; Neighboring Districts is an average of Menlo Park, Palo Alto, Las Lomitas, Woodside, and Portola Valley
 * Source: Ravenswood Student Services Dept

According to the 2017 American Community Survey data from the Census Bureau, the population of Belle Haven is 57.6% Latinx (compared to 15.4% in Menlo Park as a whole), 20.9% African American (compared to 4.9% in all of Menlo Park), and 8.3% Pacific Islander (compared to 1.5% in the city as a whole). Residents of the Belle Haven neighborhood had a median annual income in 2018 of \$58,000 compared to \$239,877 in west Menlo Park. 42% of Belle Haven residents are homeowners, versus 83% of residents in the rest of Menlo Park.

During recent community discussions and focus group sessions that occurred during the library's space needs assessment for a new branch library building, community members expressed their hopes that the library could be focal point for learning in the community. The library has begun taking steps to address this aspiration, with the beginning of two pilot programs in the summer and fall of 2019 – a Families for Literacy program that focuses on early childhood literacy development, and a Homework Help Center based at the branch that would assist grade school students with homework completion. The Virtual Reality Cart and planned coding club would be an important piece of the library's response to Belle Haven resident and would target teen and pre-teen residents not served by our other efforts.

5. Goals and objectives of the project. (Include here any rationale for changes to the original grant application).

Project Goals:

- Help bridge the digital divide in the Belle Haven neighborhood by exposing teens to new technologies.
- Provide stepping stones to tech careers by introducing teens to coding in a fun, upbeat environment.
- Test a component of a digital media lab to gauge teen interest in related technologies and programming. Physical space limitations at the branch location do not allow for the replication of all aspects of South San Francisco's Digital Media Lab.
- Pilot a coding club that would begin by focusing on projects that are related to or could be demonstrated with VR technology.
- Build relationships with local schools to assess student needs and how the library could help meet them, and to raise awareness of program offerings at the library:
TIDE Academy (Sequoia Union High School District magnet school in Belle Haven)
MidPen High School (Charter High School)
Ravenswood City School District



Menlo Park City School District
 Beechwood School (Charter School)

- Build relationships with nonprofit partner organizations in order to enhance library program offerings:
 - StreetCode Academy
 - MidPen Media Center
 - Girls Who Code
- Build relationships with for-profit groups to enhance library program offerings:
 - MV Code Club
 - Code for Fun
 - iD Tech

Draft Project Outcomes (to be modified after community conversations with targeted user groups – initial outcomes adapted from Project Outcome survey related to digital literacy programs)

- 40% of program participants intend to apply something they learned during the program
- 40% of program attendees feel more knowledgeable about using virtual reality technology
- 40% of program attendees feel more confident when using virtual reality technology
- 40% of program attendees are more aware of resources and services provided by the library

6. Project timeline (activities).

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|---|--|
| Grant award date + 1 week - estimated September – October 2019 | <ul style="list-style-type: none"> • Teen Advisory Group (TAG) planning meetings, marketing team meetings, tech team pre-meetings, library programming team meetings. • Community conversations with students at TIDE Academy, MidPen High School, and middle school students of the Ravenswood City School District to assess student needs • Modify program outcomes based on community conversations • Meet with partner organizations to plan instructional programs. • Purchase materials • Set-up cart |
| November 2019 | <ul style="list-style-type: none"> • Finalize partner agreements and scheduling for first round of instructional programs |



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|---------------|---|
| | <ul style="list-style-type: none"> • Begin promoting intro programs |
| December 2019 | <ul style="list-style-type: none"> • Begin programming with simple demo/intro/how-to sessions to expose teens to VR technology and build interest in upcoming instructional sessions • Continue TAG meetings, library programming team meetings • Use demo programs to build interest in Coding Club • Start attendee assessments with quick 4 question surveys • Use feedback from initial assessment and target group conversations to finalize instructional programs |
| January 2020 | <ul style="list-style-type: none"> • First round of instructional programs with partner organizations • Continue demo/intro programs to sustain interest. • Continue marketing efforts • Coding Club pilot |
| January 2020 | <ul style="list-style-type: none"> • More intensive program assessment – individual interviews |

7. Evaluation of the project.

Community conversations with local teens and students will begin the planning process – the results of those conversations will inform project outcomes and the programming that is created to help achieve those outcomes.

Quick surveys that focus on program outcomes will be used with users of the first demo sessions of the cart.

Sample questions:

Have you been to a library program before?

Did you learn something new at today’s program?

Would you be interested in more focused programs on a related topic: coding/game design/animation/other?

Would you be interested in a coding club where you could learn how to make projects that you could experience in VR?

The Library’s existing Teen Advisory Group can be used as a focus group for getting qualitative feedback about the kind of programs that are developed, but members of the initial community conversation groups can also be reconvened or surveyed.

Programming can be adjusted based on feedback at 6 and 12 months after implementation.

8. Project budget. (Indirect costs are not allowed).

| Unit Cost | Item Count | Vendor | Description | Product Link |
|-----------|------------|--------|---|---|
| 317.27 | 1 | CDW-G | Bretford AV Cart | https://www.cdwg.com/product/Bretford-Presentation-Cabinet-Cart/1397423? |
| 499.00 | 1 | Amazon | HTC Vive | https://www.amazon.com/HTC-VIVE-Virtual-Reality-System-pc/dp/B00VF5NT4I/ |
| 99.99 | 1 | Amazon | Deluxe Audio Strap | https://www.amazon.com/dp/B06Y2GDXXMC |
| 578.99 | 1 | CDW-G | Samsung LCD Screen | https://www.cdwg.com/product/samsung-u32h850umn-uh85-series-led-monitor-32/4587144?enkwr=Samsung+U32H850UMN+-+UH85+Series |
| 1769.60 | 1 | Dell | Dell Precision 3630 Tower (i7-8700K, GTX 1080 or Quadro P4000, 16gb RAM, External WiFi, 256gb SSD, wireless keyboard and mouse) | https://www.dell.com/en-us/work/shop/desktops-all-in-one-pcs/precision-3630-tower-workstation/spd/precision-3630-workstation/xctopt3630us3?configurationid=675be679-09fb-471c-a1b0-63d07ab2175b |
| 49.00 | 1 | Amazon | Rode Micro Boom Pole | https://www.amazon.com/Rode-Micro-Telescopic-Microphone-Extension/dp/B004X4UZB8/ |
| 22.99 | 1 | Amazon | Grommet Mount LCD Stand | https://www.amazon.com/Suptek-Adjustable-Monitor-Rotation-Max-MD6401/dp/B01LPVLYA2/ |
| 28.99 | 1 | Amazon | Surge Protector with integrated USB | https://www.amazon.com/gp/product/B078GFMD52/ref=ppx_yo_dt_b_asin_title_o00_s01?ie=UTF8&psc=1 |
| 69.99 | 1 | Amazon | Sound Bar | https://www.amazon.com/gp/product/B078P4291Z/ref=ppx_yo_dt_b_asin_title_o01_s00?ie=UTF8&psc=1 |
| 12.59 | 1 | Amazon | Sound Bar Mount Brackets | https://www.amazon.com/gp/product/B01GUIEFJC/ref=ppx_yo_dt_b_asin_title_o00_s01?ie=UTF8&psc=1 |
| 8.99 | .5 | Amazon | Ball head adapter | https://www.amazon.com/gp/product/B06XJRRKJT/ref=ppx_yo_dt_b_asin_title_o03_s00?ie=UTF8&psc=1 |



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|-------|----|-------------|---|--|
| 10.79 | 1 | Amazon | 6' DisplayPort Cable | https://www.amazon.com/gp/product/B078HVDMW2/ref=ppx_yo_dt_b_asin_title_o00_s01?ie=UTF8&psc=1 |
| 8.99 | .5 | Amazon | 6' USB cable Type A to Type A | https://www.amazon.com/gp/product/B00HSS9JMW/ref=ppx_yo_dt_b_asin_title_o03_s00?ie=UTF8&psc=1 |
| 25.99 | 1 | Amazon | Case Fans | https://www.amazon.com/AC-Infinity-AC-Powered-Playstation-Component/dp/B01MZ6VNII/ |
| 4.99 | 1 | Amazon | 3.5mm Audio Cable 2' | https://www.amazon.com/gp/product/B01K3WX4FW/ref=ppx_yo_dt_b_asin_title_o03_s00?ie=UTF8&th=1 |
| - | 1 | Thingiverse | 3D printed grommet | https://www.tinkercad.com/things/euQ7GBP02FS <i>From <https://www.tinkercad.com/things/euQ7GBP02FS-vr-cart-grommet></i> |
| - | 2 | Tinkercad | 3D Printed wand holder "WallMountSingleNoHoles" | https://www.thingiverse.com/thing:1491610/files |

Subtotal - \$3508.16

10% allowance for price variations - \$350.82

Total request - \$3858.98

9. Sustainability analysis.

Sustainability is primarily dependent on staff effort to assess target population needs and aspirations, and then develop programs and services that aim to meet those needs. Programming that is developed in partnership with schools and nonprofit organizations has the potential to build long lasting relationships that benefit both the library and the community.