Wylie PTT Teacher Grant Application

2020-2021

Project Title: Virtual Reality Headsets for Immersive Technology Education

Applicant's name/ Title: Meredith Nickerson, Media Specialist

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Amount Requested: $3,040

Grades of students' affected: 3rd & 4th grade

Number of students affected: All Wylie students

Date Requested: Feb 26, 2021

Date Needed: As soon as possible

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1. **What is your proposal and objective?**
   Delivering digital instruction to almost 500 students has been a challenge throughout this unprecedented school year. However, our students have show incredible patience, resilience, and flexibility this entire time. While I have done my best to "digitize" most of my curriculum this year, I have gotten hung up while planning one of our student's favorite units in Media: Virtual Reality Design.

   Ordinarily, students would share 30 accounts in an online tool, CoSpaces, to design their "dream world" in a virtual, three dimensional space. Through my lessons in 3-D design, I am able to guide students with skills such as:

   ● Scaling, translating, and manipulating objects (promoting spacial and fine motor skills)
   ● Coding objects within the scene (building on our prior coding experience)
   ● Citing sources and crediting artists (digital literacy skills)
   ● Considering an audience and telling a story (language arts connection)

   Unfortunately, I am facing several barriers that are keeping me from teaching this unit during this school year. They are:

   ● Safety considerations: In order to "view" our virtual creations, my classes have shared a class set of VR headsets and smartphones that I acquired through a previous EFD grant several years ago. While I can safely disinfect smartphones between classes for my homeroom students, I do not have the time or means to disinfect reusable headsets. Even if I could, I would not feel comfortable with students sharing any item that touches their face.
   ● Home-based students would be left out of this unit, as I do not have enough headsets to loan to these 125 students. They could design a space from home, but would not be able to test out their creations
   ● I currently do not have enough "seats" (student accounts) in my CoSpaces (3-D Design tool) account for all of our students to work independently on their projects. In the past, we have shared these seats during Media class, so I've only had to purchase 30 seats. This year I would need to purchase 500 seats.

   Given the obstacles that I am currently facing, I have come up with solutions for the problems listed above. Unfortunately, these solutions require funding. I would like to:

   ● Purchase 500 cardboard VR headsets that could be sent home to home-based students and kept with homeroom students' individual school supplies. Homeroom students would share sanitized smartphones in the classroom while testing their creations, while homebased students would be encouraged to download the free app and use family devices at home to test their creations.
   ● Purchase 500 seats on the CoSpaces EDU platform

2. **Type of proposal**
    a. **Is this a new or returning grant?**
       This is a new, one-time grant

    b. **Did you receive funds from any other source for this request?**
       No

3. **How does this proposal benefit the students?**

   Over the past few years, our VR unit has become one of students' favorite set of lessons in Media. After student's hard work and flexibility this year, I would like to reward them by still teaching this unit.

   As noted in the proposal, this unit also teaches valuable skills such as:
   ● Scaling, translating, and manipulating objects (promoting spacial and fine motor skills)
   ● Coding objects within the scene (building on our prior coding experience)
   ● Citing sources and crediting artists (digital literacy skills)
   ● Considering an audience and telling a story (language arts connection)

4. **Briefly explain how your proposal fits into curriculum guidelines.**

   My VR Unit covers the following ISTE (technology/literacy skills) standards:

   ● **ISTE Standard 1D:** Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies. (VR is an emerging technology)

   ● **ISTE Standard 2C:** Students demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.
   (3D Model artists' rights and attribution)

   ● **ISTE Standard 4C:** Students develop, test and refine prototypes as part of a cyclical design process.
   (Designing and redesigning their 3D spaces)

   ● **ISTE Standard 4D:** Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.
   (Individual projects provide open-ended challenges for students)

   ● **ISTE Standard 5D:** Students understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.
   (Coding object to complete actions)

   ● **ISTE Standard 6C:** Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.

(Students will be communicating and sharing their "Dream World" through a digital model)

- ISTE Standard 6D: Students publish or present content that customizes the message and medium for their intended audiences.
(Students will visit classmates' "Dream Worlds" at the end of the project)

5. **Detail your budget request.**

- 500 VR Headsets at $4.32 per unit = **$2,160**
- 500 Seats in CoSpaces EDU at a reduced rate (50% off) at $1.76 per student pulse a $5 handling fee = **$880**
- **Grand total = $3,040**

Link to quote from Maxbox VR for 500 headsets
Link to quote for CoSpaces EDU

The headset quote is the lowest out of 3 bids that I received. Headsets would be custom printed with a design, and we could have "funded by Wylie PTT" printed on the headsets

The CoSpaces EDU quote is with a 50% discount as we are a Title 1 School

6. **Are there other details that would help the committee in the decision making process?**

I really think students would be thrilled by this end-of-the-year "perk", and if they take a keen interest in VR design, student's CoSPaces accounts will be available to them for a year after purchase, so students can bring home their headsets and continue designing independently if they wish.