1) Purpose and Instructional Need (include goals and objectives)

**Title:** The Use of Virtual Reality (VR) in Teaching Children’s Literature

**Purpose:** During the last decade, advances in technology have improved the use of virtual reality systems in more and more teaching activities. However, reviewing the literature, it appears that virtual reality content creators and scholars rarely address or develop children’s stories to be represented through VR. The purpose of this research is to explore immersive virtual reality as a potential educational strategy for teaching children’s literature to all undergraduate students enrolled in LITED 1044 course (Children’s Literature) at UNI. To examine whether VR has the potential to improve teaching children’s literature, this project has five major phases:

1. developing virtual content for 3 picture books using 360-degree camera and VR content developer
2. exploring how VR picture books (created in phase one) might be different from traditional reading of those stories
3. assessing students’ emotional empathy:
   - after reading traditional picture books
   - after experiencing VR version of those picture books
4. assessing students’ agency:
   - after reading traditional picture books
   - after experiencing VR version of those picture books
5. summarizing whether and in what ways using VR stories might empower teaching LITED 1044 course (Children’s Literature)

2) Identify how project will impact and benefit student learning include % & number affected.

The unique features of storytelling in virtual reality environment are immersion and interactivity. In particular, in a VR experience, the viewer chooses how to participate in the story world. The interactive features of VR storytelling enable readers to select the pace and content of their reading according to their preferences. Also, in a VR environment, viewers have the potential to interact with the characters in the story. Characters may react to readers’ voice, touch, motion, and command. The viewers may take different roles and play various characters of their stories.

VR content can be used as a motivational tool for all different learners. The major highlight of this study will be the immersive ways that VR storytelling environment impact the interaction of readers with stories and their characters. The project will impact 100% students (32 students in each section) enrolled in LITED 1044 course (Children’s Literature). In each section of LITED 1044, half of the class (Group One including 16 students) will read three assigned picture story books in a traditional print format and the other half (Group Two including 16 students) will interact with the VR versions of those stories. After reading one picture book in print and VR, the groups will switch their roles.

3) Describe how project aligns with COE Strategic plan and if possible department goals.

The project will align with these COE strategic plans:

**GOAL 1:** Lead the state and nation by developing highly effective professionals prepared to educate, serve, and lead future generations.

**GOAL 2:** Faculty will distinguish themselves by engaging in creative and intellectually rigorous teaching, scholarship, and service.

2017 COE Student Technology Fund Application
GOAL 3: Create, maintain, and enhance a culture that is characterized by a proactive commitment to diversity, collegiality, and mutual respect.
GOAL 4: Increase resources, including human, capital, and informational.

4) Describe your plan to assess the impact of the technology project on student learning.

This research will be a semester long study in the classroom setting. The instructor will act as a facilitator for the VR simulation exposure. Participants of this study are students enrolled in LTED 1044 class (32 students in each section). To examine the efficacy of VR technology in teaching children’s literature, a quantitative assessment instrument will be used. During the VR experience, two questionnaires will be used to assess students’ responses in Group One and Group Two. One questionnaire will be used to assess students’ emotional empathy and the other one to assess their sense of agency. The quantitative study will be repeated to examine both traditional and VR readings.

Emotional Empathy Assessment

1. I find it easy to put myself in characters’ shoes.
   Does NOT describe me well 1 2 3 4 5 Describes me well
2. When I see characters being taken advantage of, I feel kind of protective toward them.
   Does NOT describe me well 1 2 3 4 5 Describes me well
3. When I see characters being treated unfairly, I don’t feel much pity for them.
   Does NOT describe me well 1 2 3 4 5 Describes me well
4. I have tender, concerned feelings for characters who seem less fortunate than me.
   Does NOT describe me well 1 2 3 4 5 Describes me well
5. I don’t feel very sorry for characters who are having problems.
   Does NOT describe me well 1 2 3 4 5 Describes me well
6. Characters’ misfortunes do not disturb me a great deal.
   Does NOT describe me well 1 2 3 4 5 Describes me well

Agency Assessment

1. Rate the extent to which the book motivates you to become intellectually involved in ways that result in helping characters.
   Lowest rate 1 2 3 4 5 Highest rate
2. Rate the extent to which the book motivates you to become emotionally involved in ways that result in helping characters.
   Lowest rate 1 2 3 4 5 Highest rate
3. Rate the extent to which the book motivates you to become physically involved in ways that result in helping characters.
   Lowest rate 1 2 3 4 5 Highest rate
4. Rate the extent to which you want to become like the protagonist in the story
   Lowest rate 1 2 3 4 5 Highest rate

5) Support Needed:
   a. Who will install technology and provide technical support for project?
      I will be able to install the technology. I will definitely consult with UNI technology team.
   b. Where will resources be installed? Buildings SEC Room #101E
   c. Does this room have the necessary data & electrical infrastructure required for your resources?
      Not required
   d. Does this proposal include funds to add the necessary infrastructure if not present?
      I have applied for an external grant to add more resources to this project.
Attach *hard copies of price quotes*. Indicate which attached page goes with each item below.

<table>
<thead>
<tr>
<th>Product #</th>
<th>Vendor</th>
<th>Product Description</th>
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<th>Item Price</th>
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<td>1</td>
<td>360fly 4K</td>
<td>360-degree camera and head mounted display to create virtual content</td>
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<td>499.99</td>
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<td>2</td>
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<td>VR creation software (probably we can find a free software; I need consultation to find the best content developer)</td>
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<td>3</td>
<td>Google store</td>
<td>Google cardboard (we need 15 cardboards for each section of LITED 1044; in total we have 6 sections of this course, so the total number will be 90 )</td>
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360fly 4K VIDEO CAMERA

The World's Smartest 360° 4K Camera.

$499.99

ADD TO CART

Offer valid only on orders at 360fly.com for shipment to addresses within the 50 United States and District of Columbia.

View compatible accessories

PRODUCT INFO:

Captures in both 360° and First-person PDV modes.
Shoot, Edit and Share videos in 90 seconds or less.
Dustproof, shockproof and water resistant.
THE LAST ACTION CAMERA YOU’LL EVER NEED.

Built to stand up to your active lifestyle, the 360fly 4K gives you the power to record, share and experience life like never before—in fully immersive 360° video, standard First-person POV video, VR-compatible footage and 360° stills.

FEATURED IN

WIRED

"Beautiful and innovative design compliments a simple and easy to use interface."

JOSH VALCARCEL
WIRED REVIEW
10.09.2015

CNET

"The excellent mobile app is a definite plus compared to competing cameras."

JOSHUA GOLDMAN
CNET REVIEW
07.30.2015

USA TODAY

"The clips of skydivers, race car enthusiasts and the like on the 360fly website look awesome."

JEFFERSON GRAHAM
USA TODAY REVIEW
08.12.2015

TOM’S GUIDE

"The 360fly 4K delivers the best-looking images and video and lets you share them with ease."

MIKE PROSPERO
TOM’S GUIDE REVIEW
07.31.2015

TESTIMONIALS TECH SPECS APPS

WHAT’S IN THE BOX?

• 360fly 4K Camera
• ACA (Action Camera Adapter)
• USB 2.0 Cable
• Power Cradle

https://www.360fly.com/360fly-4k
- Carrying Pouch
- QuickStart Guide and
Warranty Card

360fly 4K
VIDEO CAMERA
The World's Smartest
360° 4k Camera.

$499.99
ADD TO CART

FEATURED ACCESSORIES

VR HEADSET
[https://www.360fly.com/vr-headset]
$49.99
ADD TO CART
Google Cardboard (Single)
$15

Save $5 when you buy a 2-pack — just $25 for two

At a glance
Immersive experience
Step into stunning environments that stretch all around you. No matter where you look, it's as if you're really there.

Lots of content to explore
Discover thousands of VR apps and games, and a variety of captivating YouTube videos made to view with Cardboard. Travel the world, go onstage with your favorite artists, experience thrilling simulations, and more.

Works with your smartphone
Cardboard supports most Android or iOS phones with screen sizes from 4 to 6 inches. It also has an interactive click button that works with all compatible phones.

Clever, user-friendly design
Cardboard assembles in three simple steps. It features custom-designed, high-quality lenses for immersive visuals, and a partially laminated body for durability.
So much content to dive into

Explore outer space and dance onstage with your favorite artists. Thousands of VR apps, games, and videos¹ are available to surround you in the experience, making you feel like you’re really there.

Get ready to explore

Here are a few Google apps³ you can enjoy with your VR viewer.
Specifications

Dimensions
5.9 x 3.5 x 2.2 in (150 x 90 x 55 mm)

Weight
96 g

Material
Body: Cardboard
Lens: Plastic acrylic

What's in the box

Google Cardboard

Requirements

Compatible smartphone² that works with Google Cardboard supporting apps.
Pixel

From $649

See more like this

Daydream View

$79

1 Each VR viewer has a "Works with Google Cardboard" badge, indicating compatibility with available Cardboard apps. Explore here.

2 Android 4.1 or higher, or iOS 8.0 or higher. Supports larger phones with screens sizes 4 to 6 inches.
Stay in the know

Never miss out on Google Store updates, offers, and useful tips for getting the most out of our products.

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