To: Dr. Usamah Rodgers, Superintendent, DeSoto ISD
From: Jasmine Handsome
Date: September 2025
Subject: Proposal for a Three-Year Implementation Plan for Virtual Reality in DeSoto ISD

Introduction

Dear Dr. Rodgers,

This proposal outlines a three-year plan to pilot and scale Virtual Reality (VR) integration in DeSoto ISD. VR offers students equitable access to experiences often out of reach due to cost, distance, or safety concerns. Research shows immersive VR enhances engagement and conceptual understanding, with small-to-moderate learning gains in K-12 science and strong positive effects on motivation (Coban et al., 2022; Villena-Taranilla et al., 2022). By anchoring this plan in DeSoto's equity mission and recent technology investments, we can create a sustainable model that transforms science and career exploration opportunities.

Similar mid-sized suburban districts have already demonstrated the feasibility of VR integration at scale. For example, Cypress-Fairbanks ISD piloted immersive technology in STEM classrooms, reporting increased engagement and improved access for economically disadvantaged students (EdTech Magazine, 2022). This precedent shows that DeSoto ISD, with comparable demographics and a strong equity mission, is well-positioned to lead in this space.

Purpose and Theory of Action

Purpose: Provide equitable, high-impact science and career exploration experiences for students across DeSoto ISD through a phased VR rollout.

Theory of Action: If teachers receive embedded professional development and access to curated VR content aligned to TEKS, then students will show measurable growth in engagement, science achievement, and career readiness (Lin et al., 2024; PRISMS/WestEd, 2024).

Year 1: Pilot and Foundation

Scope:

- Implement VR in 10-12 classrooms (grades 6-9 science and CTE), including SPED and ELL classes to ensure accessibility (Yang, X., et al., 2025).

Professional Development:

- Summer VR Institute (6 hours).
- Monthly coaching cycles.
- Micro-credential: “VR Lesson Designer I.”

Curriculum Integration:

- Science: VR explorations of ecosystems, molecules, and anatomy (Hu-Au & Lee, 2021).
- CTE: Career simulations in healthcare and skilled trades (PRISMS/WestEd, 2024).

Metrics:

- 5% gain on science benchmarks compared to matched non-VR classrooms (Lin et al., 2024).
- 70% of pilot teachers report increased engagement and integration feasibility (Garcia et al., 2023).
- Accessibility documentation for SPED/ELL students (Yang, X., et al., 2025).

Resources and Funding:

- Estimated cost: $35,000-$45,000.
- Potential funding sources:
    - Title I innovation funds (Texas Education Agency, 2022).
    - Title IV, Part A (STEM/technology integration).

    - Perkins V CTE allocations (U.S. Department of Education, 2023).
    - Texas Instruments Foundation STEM grant ($1.7M awarded to DeSoto ISD in 2023; DeSoto ISD, 2023).
    - National Science Foundation ITEST program for K-12 technology innovation (NSF, 2023).
    - Corporate sponsors such as Samsung Solve for Tomorrow and Verizon Innovative Learning.
- Cost comparison: $14-$20 per student per session vs. $50-$100 for traditional field trips (Farra et al., 2019; Kiegaldie et al., 2023).

Year 2: Expansion and Refinement

Scope:

- Expand to 25-30 classrooms across middle and high schools.

Implementation Models:

- Whole-class VR science lessons.
- Small-group VR sessions for ELL vocabulary and SPED scaffolding (Yang, H., et al., 2023).

Professional Development:

- “VR Designer II” badge.
- Design studios for cross-campus collaboration (Matovu et al., 2023).

Metrics:

- 10% growth in benchmark scores.

- 60% of middle/high teachers adopt VR lessons.
- Publish a “What Works With VR” guide.

Funding:

- Estimated $100,000 for additional kits, licenses, and PD.
- Grant applications to NSF ITEST, NSTA Ignite, and state-level STEM innovation funds.

Year 3: Institutionalization and Sustainability

Scope:

- District-wide implementation in science and CTE, with two VR leaders per campus.

Professional Development:

- Site-based PD led by teacher leaders.
- Ongoing micro-credentials.

Curriculum Integration:

- Embed VR into district unit plans as core instruction (Hughes & Roblyer, 2023).

Metrics:

- 10–12% benchmark gains.
- 85% of teachers implement at least two VR lessons per semester.
- 75% of students report increased interest in science and careers (PRISMS/WestEd, 2024).

Sustainability:

- Establish 3-5 year device refresh cycle.
- Allocate recurring budget line for VR maintenance, recycling and licensing.
- Maintain a TEKS-aligned VR repository.

Evaluation and Continuous Improvement

Evaluation will include:

- **Quantitative:** Benchmark scores, VR usage logs, adoption rates.
- **Qualitative:** Teacher reflections, student focus groups, parent feedback.

This aligns with Radianti et al. (2020), who emphasize iterative evaluation (repeated assessment) and adaptation for sustainable VR integration.

Conclusion

This plan builds on DeSoto ISD's current momentum in STEM innovation and positions VR as a transformative, equity-driven tool. By combining careful piloting, embedded PD, targeted funding strategies, and clear metrics, DeSoto ISD can become a leader in immersive learning across Texas. After all, we are Eagles, and Eagles don't settle for the ordinary. We soar. With this plan, our students will rise to new heights, proving that in DeSoto ISD, only excellence will do.

Respectfully submitted,

Jasmine Handsome

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