ozobot®

case study

Enhancing English Language Proficiency with Ozobot

Overview

Blanche Charles Elementary School, part of the Calexico Unified School District, successfully integrated Ozobot robots into their English Language Development (ELD) curriculum, leading to significant improvements in English Language Proficiency Assessment for California (ELPAC) scores.

By utilizing Ozobot Color Codes and custom lesson plans, educators Jesus Huerta (Tech Coach) and Robert Stone (Literacy Coach) provided English Learners (ELs) with an engaging and effective way to develop their language skills. The results were clear: a steady increase in English proficiency, with a marked rise in ELPAC scores from 2022 to 2024.

The Challenge

Addressing the Needs of English Learners

English Learners, particularly those at Level 1, require structured environments with visual aids, modeling, and scaffolding to develop foundational language skills. Traditional teaching methods often struggle to maintain engagement while ensuring language acquisition across reading, writing, listening, and speaking. The district sought an innovative approach to enhance comprehension, vocabulary, and language fluency while maintaining high engagement.

The Conclusion & Call to Action

Integrating Ozobot Robots into ELD Instruction

To address these challenges, Blanche Charles Elementary implemented Ozobot robots as a hands-on, interactive tool for language learning. Educators designed their own lesson content, aligning activities with California ELD and English Language Arts (ELA) standards. Ozobot Color Codes were used as the primary method of coding, allowing students to:

- Play, code, and resolve challenges while developing language skills.

- Read, write, listen, and speak about their activities using structured academic language.

- Engage in collaborative projects that reinforce comprehension and critical thinking.

Implementation Strategy

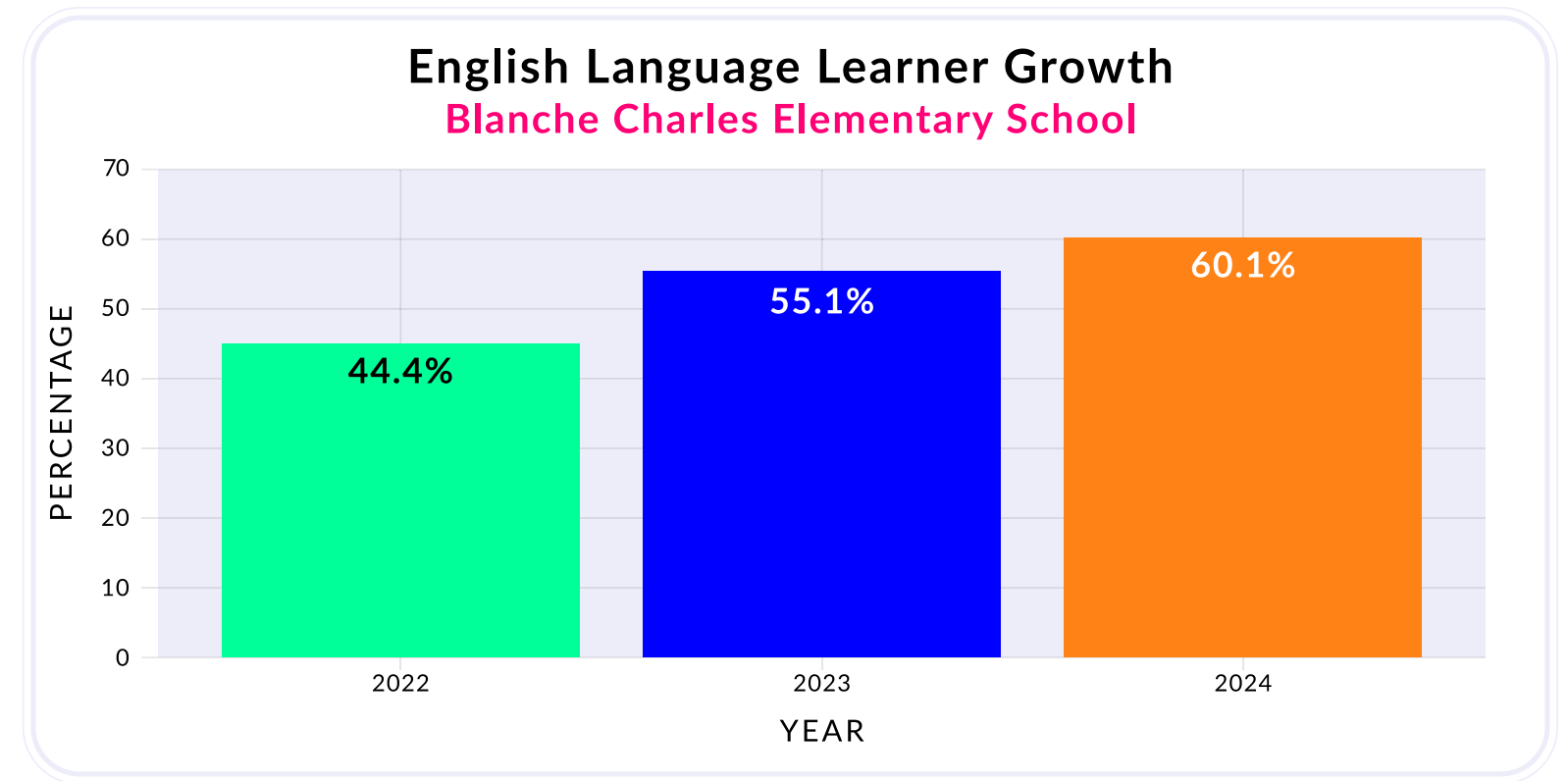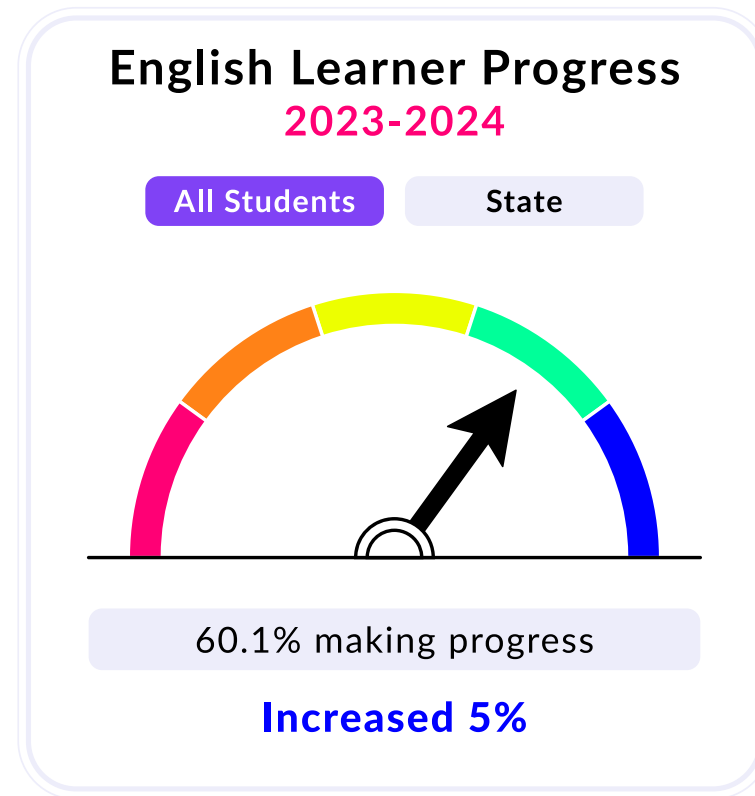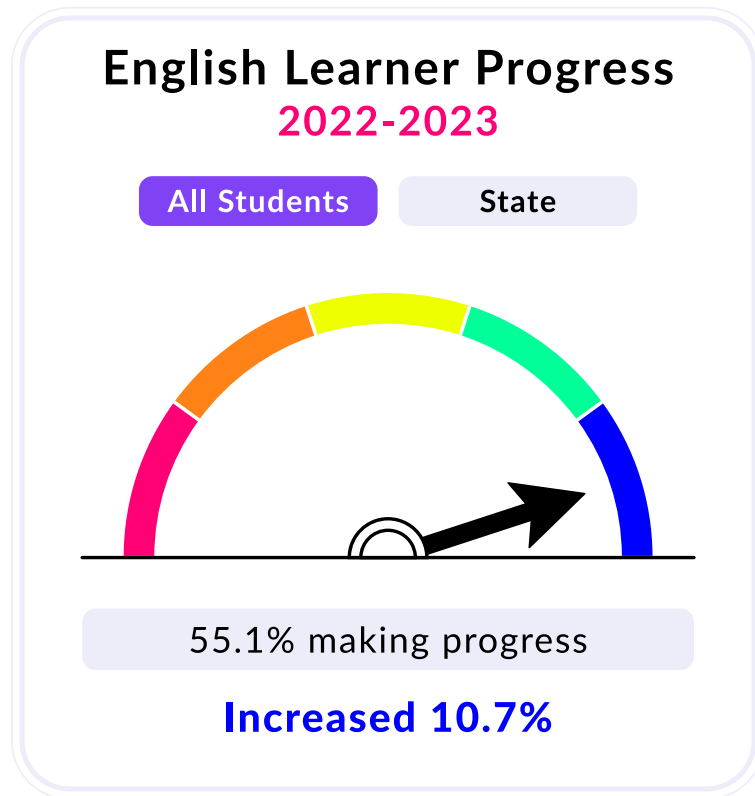The structured ELD lessons followed a rigorous yet engaging approach:

- **Warm-Up & Modeling**: Teachers introduced new vocabulary and language structures, using Ozobot activities as context.

- **Guided Practice**: Students worked collaboratively to code their Ozobots, describing their steps using sentence frames.

- **Independent Application**: Students created original challenges or narratives, applying learned vocabulary and grammar.

- **Reinforcement**: Activities were repeated through various modalities, including peer discussions, oral presentations, and written reflections.

The Results

## Measurable Improvements in English Proficiency

The impact of integrating Ozobot robots into ELD instruction was evident in student performance:

- **2022-2023**: 55.1% of students showed progress, marking a 10.7% increase from the previous year.

- **2023-2024**: 60.1% of students demonstrated progress, reflecting an additional 5% gain.

English Learner Progress
2022-2023

All Students   State

55.1% making progress

Increased 10.7%

English Learner Progress
2023-2024

All Students   State

60.1% making progress

Increased 5%

English Language Learner Growth
Blanche Charles Elementary School

44.4% — 2022
55.1% — 2023
60.1% — 2024

PERCENTAGE

YEAR

• **Overall Growth**: ELPAC score increased from 1372 points in 2021 to 1616 points in 2024, representing the highest improvement rate during the program.

Student A: Academic Points Over Time
Tracking Annual Academic Performance

POINTS

Year	Points
2021	1372
2022	1433
2023	1494
2024	1616

YEAR
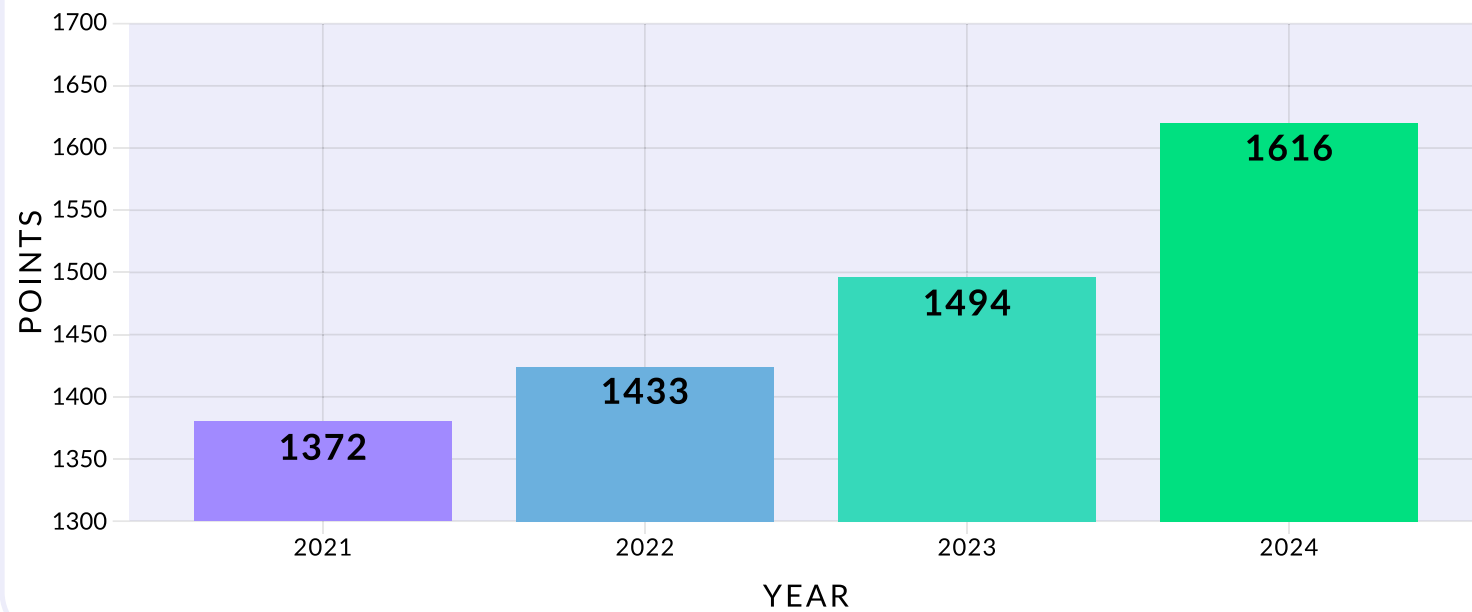
Summative ELPAC
Cummative ELPAC Overall Scale Score Ranges (2018–19 and Forward)

| Grade Level / Span	Level 1 Begining to Develop	Level 2 Somewhat Developed	Level 3 Moderately Developed	Level 4 Well Developed
Kindergarten	1150–1373	1374–1421	1422–1473	1474–1700
1	1150–1410	1411–1454	1455–1506	1507–1700
2	1150–1423	1424–1470	1471–1531	1532–1700
3	1150–1447	1448–1487	1488–1534	1535–1800
4	1150–1458	1459–1498	1499–1548	1549–1800
5	1150–1466	1467–1513	1514–1559	1560–1800
6	1150–1474	1475–1516	1517–1566	1567–1900

Impact & Future Implications

This case study highlights the effectiveness of integrating Ozobot robots into ELD instruction, demonstrating:

- Increased student engagement and motivation in language learning.

- Improved proficiency in reading, writing, listening, and speaking.

- Equitable access to 21st-century skills, including problem-solving and collaboration.

- A scalable model for other districts seeking to enhance ELD outcomes through technology.
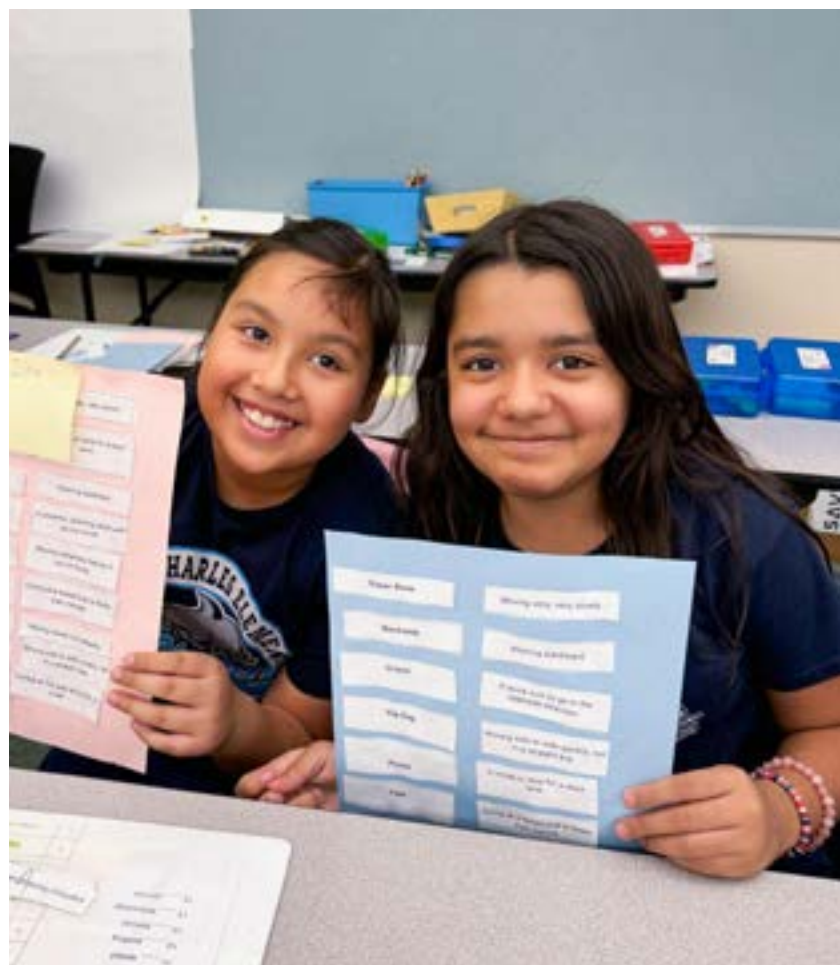
Educator Testimonials

Integrating the use of Ozobot robots when implementing the grade-level ELA standards and ELD standards has been a game changer for our English Language Learners...

Students are always willing to learn but for some of the items they need to learn we need to add that special ingredient or secret sauce, and Ozobots is one that we go to time and time again.

Jesus Huerta
Tech Coach
Blanche Charles Elementary School

For multilingual learners, Ozobot becomes more than a tool—it's a bridge to mastering English while strengthening their primary language, creativity, and coding fluency, empowering them to navigate an increasingly digital world.

Robert Stone
Instructional Coach
Blanche Charles Elementary School

Ozobots are perfect as an educational technology tool because they are easy to pick up and understand but go beyond being more than a "toy". The way that Computer Science foundational skills are learned using Ozobots prepares students for continuing their journey towards understanding and being comfortable with technology.

Jesus Huerta
Tech Coach
Blanche Charles Elementary School

The Conclusion & Call to Action

As technology continues to shape education, leveraging tools like Ozobot robots can transform language learning for English Learners. By aligning engaging, hands-on coding activities with ELD/ELA standards, educators can sustain and accelerate student success. Let's continue innovating and empowering our students to reach new heights in English proficiency.

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