



# Measuring What Matters: A Parent Voice Analysis for Belvedere-Tiburon

Community Intelligence Report

Machine Learning Findings  
On Language And Values

# EXECUTIVE SUMMARY

When a parent group in Belvedere-Tiburon wanted to understand the deepest values driving their community's child development priorities, they decided to explore what machine learning and advanced Natural Language Processing technology could offer. Through DistilBERT-based semantic analysis, Impacter Pathway processed authentic parent responses to an open-ended self-reflection prompt and mapped community values to uncover systematic patterns in how parents express their hopes for children.



## Key Metrics Overview

- **Deep Voice Analysis:** 10,127 words of authentic parent language analyzed
- **Community Alignment Score:** 0.86/1.0 - Strong consensus around shared values
- **Average Emotional Resonance:** 72/100 - High authenticity and personal investment
- **Language Distribution Finding:** Agency-building vocabulary emerges in fewer than 30% of responses

## Community Alignment Score Definition

Using cosine similarity in embedding space, this metric measures semantic convergence between individual responses and the collective corpus. Scores approaching 1.0 indicate strong lexical clustering around shared discourse patterns; lower scores identify outlier priorities or divergent value frameworks.

## Emotional Resonance Definition

A lexicological measure of affective markers, hedging patterns, and vulnerability indicators in natural language. The sentiment analysis engine evaluates discourse moves including hesitation markers ("I don't know if I'm saying this right"), emotional confession, and metacognitive reflection to predict sustained parental engagement patterns through authentic personal investment.

**The Critical Finding:** Belvedere-Tiburon parents demonstrate exceptional consensus around compassion (70% token frequency) and resilience (60% semantic clustering), but agency/autonomy language appears systematically under-represented. This pattern represents a precise intervention opportunity — one that [Harvard's Making Caring Common Project](#) specifically addresses through evidence-based practices for fostering child self-direction alongside empathy.



MAKING  
CARING  
COMMON  
PROJECT



## ABOUT IMPACTER PATHWAY

IMPACTER PATHWAY transforms traditional assessment through advanced Natural Language Processing, analyzing authentic human voice to measure character development and future-ready skills. Through machine learning processes, the platform identifies patterns invisible to conventional surveys, providing quantifiable insights into social-emotional growth and community values.



### Definitions of Key Character/Non-Cognitive Terms and Skills for Use in Admission

Written by Samantha Wertje, Trisha Ross Anderson, and Richard Weissbourd



### The Harvard Connection

IMPACTER's NLP engine foundation rests on Harvard University's Making Caring Common (MCC) Project. MCC's research identifies eight core competencies critical for ethical development and life success: Curiosity, Perspective-Taking, Purpose, Self-Control, Grit, Growth Mindset, Compassion, and Gratitude. These competencies serve as semantic anchors for analysis, allowing communities to map parent language onto research-validated constructs.

The DistilBERT-based language model, trained on billions of words of authentic voice data, can detect nuanced expressions of these competencies while identifying systematic absences—what we term the Lexical Absence Index (LAI). This capability enables communities to understand not only what they value explicitly, but what they may be systematically overlooking in child development.

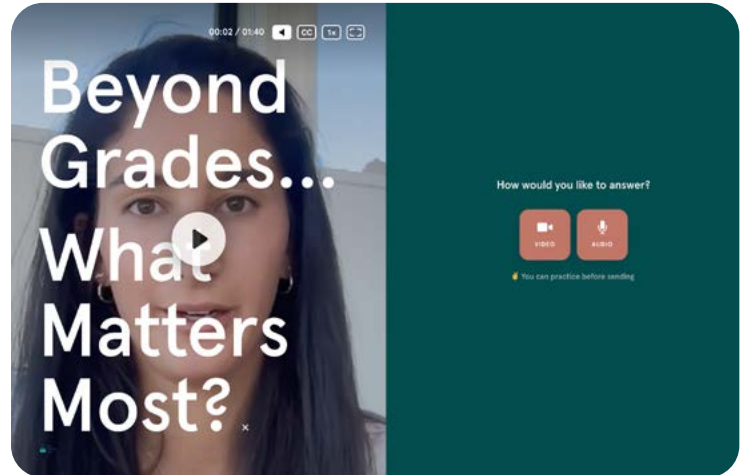
# WHAT THE DATA REVEALS: SEMANTIC CLUSTERING ANALYSIS

The data collection methodology was intentionally designed to bypass cognitive filtering and capture authentic parental values through spoken response rather than written reflection. Using NLP technology, parents responded to an oral prompt delivered by a community representative — ensuring the question felt personally relevant rather than institutionally distant. This approach eliminates the "backspace button" effect where written responses undergo multiple revisions, potentially obscuring genuine first instincts. Spoken responses flow directly from neural pathways to expression, capturing the immediate emotional and cognitive associations

parents hold about their children's development. The oral format also reduces social desirability bias, as parents speak more conversationally and less formally than when crafting written statements. This methodology produces language data that more accurately reflects unconscious priorities and authentic community values, providing the semantic foundation for meaningful machine learning analysis.

<https://theparentlab.impacterpathway.com/fo6zrnku1>

Using TF-IDF vectorization combined with neural embeddings, analysis identified three primary semantic clusters dominating Belvedere-Tiburon parent discourse.



## DOMINANT THEMATIC CLUSTERS

### Compassion/Empathy (70% Token Frequency)

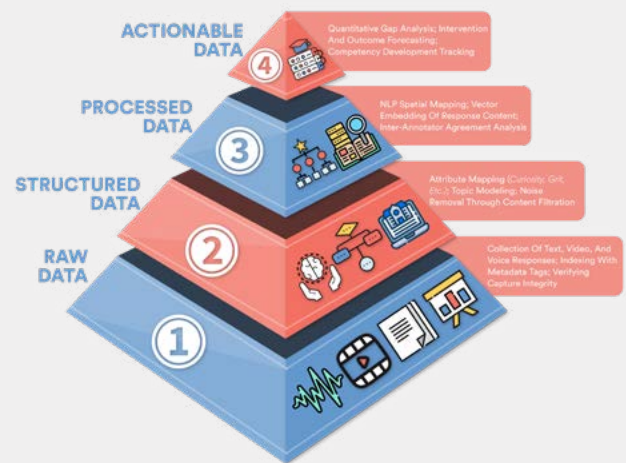
The overwhelming presence of empathy-related language creates the strongest semantic cluster in the corpus. High-frequency collocations include "kind," "empathetic," "put themselves in other people's shoes," and "understanding others' feelings."

*Representative Voice: "I want them to be compassionate in their dealings with people and environments... to put themselves in those people's shoes and be curious about other people's life situations and perspectives."*

### Resilience/Grit (60% Semantic Weight)

The second-strongest cluster centers on persistence and emotional strength, marked by verbs like "persevering," "keep going," and "bounce back." However, semantic analysis reveals these are predominantly framed as character adjectives rather than process narratives.

*Representative Voice: "I hope my child develops the strength and skills to face life's inevitable suffering with grace and courage... to find joy in the mundane and resist the pressure to always want more."and perspectives."*



### Curiosity/Learning (40% Presence)

Exploratory language appears as the tertiary cluster, anchored in verbs like "learn," "ask," and "explore." Notably, curiosity often surfaces in connection with empathy rather than as autonomous intellectual drive.

*Representative Voice: "It's less about what you learn and it's more about learning how to focus... to be confident in their gut feelings because if you trust yourself and follow your instinct, that will always take you the farthest."*

# THE AGENCY GAP: LEXICAL ABSENCE INDEX ANALYSIS

**The Critical Contrast:** Parents consistently use virtue language ("be kind") but systematically avoid action language ("make choices" or "decide for yourself"). While Belvedere-Tiburon parents demonstrate sophisticated thinking about character development, a striking pattern emerges in how they express these values. The language parents use reveals an unconscious emphasis on outcomes rather than processes, character traits rather than skill-building, and passive states rather than active agency. This isn't about what parents believe, it's about how linguistic patterns unconsciously shape child development.

The Lexical Absence Index (LAI) quantifies this phenomenon by measuring the systematic underrepresentation of agency-building vocabulary. When parents rarely use words like "choose," "decide," or "determine," children receive fewer opportunities to internalize decision-making as a core life skill. Research demonstrates that the language children hear directly influences their cognitive and behavioral development, making this pattern particularly significant for long-term outcomes. LAI analysis reveals systematic underrepresentation of agency-building vocabulary across 78% of responses.

## The Gap & Why It Matters

Agency Indicator	Presence Rate	The Gap & Research Impact
<b>Choice Verbs</b> ("choose," "decide," "determine")	<b>22%</b>	78% of parents don't emphasize decision-making language - yet research shows children who hear choice-oriented language develop stronger executive function and problem-solving skills (Deci & Ryan, 2000)
<b>Self-Direction Markers</b>	<b>30%</b>	70% focus on character traits, not autonomous skills - but studies demonstrate that autonomy-supportive language predicts higher academic motivation and psychological well-being (Grolnick & Ryan, 1989)
<b>Initiative Language</b> (child-driven action verbs)	<b>18%</b>	82% rarely mention child-led problem solving - though research indicates children who experience agency in decision-making show increased resilience and leadership capacity (Bandura, 2006)
<b>Active Construction</b> ("choose confidently")	<b>15%</b>	85% use passive rather than action-oriented language - but neuroscience research shows that action-oriented language activates motor cortex regions, strengthening behavioral pathways (Pulvermüller, 2005)

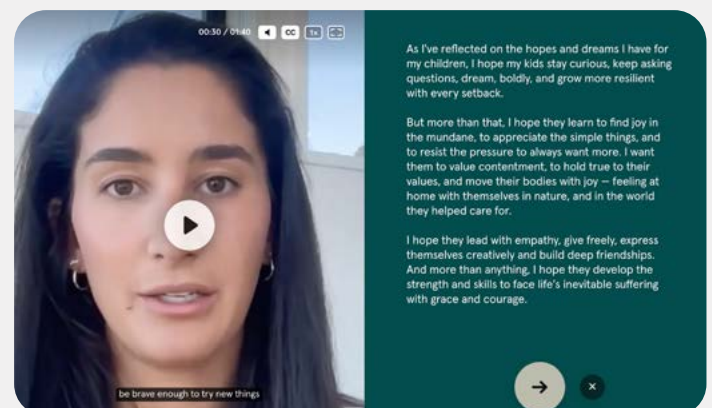
## Semantic Pattern Analysis:

Even parents emphasizing independence used passive construction ("I want them to be confident") rather than active construction ("I want them to choose confidently"). This linguistic pattern suggests unconscious prioritization of outcomes over processes.

## Exemplary Response:

One parent achieved remarkable balance, uniquely combining empathy with agency: "I hope they develop the strength and skills to face life's inevitable suffering with grace and courage... to resist the pressure to always want more." This response scored 0.12 on LAI for agency, indicating robust presence of self-direction language alongside compassion markers.

This outlier demonstrates the possibility of integrated values — children can be both deeply empathetic and confidently autonomous when parents use language that explicitly values both dimensions.



# PARENT VOICES IN CONTEXT: FOUR PERSPECTIVES

## The Balanced Perspective

(LAI: 0.12)

**"I hope they develop the strength and skills to face life's inevitable suffering with grace and courage... to find joy in the mundane, to appreciate the simple things, and to resist the pressure to always want more."**

### Analysis:

This response achieved exceptional semantic balance, combining empathy, resilience, and agency. The phrase "develop the strength and skills" implies active child participation in character building, while "resist the pressure" explicitly references autonomous decision-making.

Emotional Resonance Score

85

## The Achievement Tension

(LAI: 0.89)

**"There's two choices, Harvard, and then everything else... but I feel this knot in my stomach when I say it out loud because I know she's more than just her GPA."**

### Analysis:

High LAI score reflects systematic absence of agency language despite sophisticated self-awareness. The parent recognizes the tension between prestige goals and authentic development but lacks vocabulary for child self-direction.

Emotional Resonance Score

78

## The Cognitive Frame

(LAI: 0.29)

**"It's less about what you learn and it's more about learning how to focus... to be confident in their gut feelings and trust yourself and follow your instinct."**

### Analysis:

Uniquely emphasizes metacognitive skills and self-trust, rare agency markers in the corpus. The "attention economy" framework demonstrates 21st-century thinking about child development challenges.

Emotional Resonance Score

68

## The Community Ethos

(LAI: 0.23)

**"I want them to be compassionate in their dealings with people and environments... not chasing Stanford, but chasing whatever it is they're looking for."**

### Analysis:

Strong prosocial values with environmental consciousness. The phrase "whatever it is they're looking for" contains subtle agency language, though empathy dominates the semantic space.

Emotional Resonance Score

85

### Critical Insight:

Even responses scoring 80+ in emotional resonance (indicating deep parental reflection and authenticity) systematically avoid agency-building language. This suggests the gap is unconscious rather than intentional, representing a community-wide opportunity for systematic intervention.

# FROM INSIGHT TO ACTION: BUILDING AGENCY WITHIN COMPASSION

## THE INTERVENTION FRAMEWORK

Belvedere-Tiburon's semantic analysis reveals a precise leverage point: the community has achieved exceptional consensus around empathy and resilience but shows different patterns around child agency and autonomous decision-making. We see this as a strategic opportunity to enhance existing strengths.

### The Research Foundation:

[Harvard's Making Caring Common Project](#) provides evidence-based interventions specifically designed to develop child agency alongside empathy. MCC's research demonstrates that children who learn perspective-taking AND self-advocacy become more effective leaders and experience greater life satisfaction than those developing either skill in isolation.



## SPECIFIC IMPLEMENTATION PATHWAYS

### Family Discussion Frameworks

[Harvard's Making Caring Common Project](#) offers structured conversation protocols that embed choice-making within compassion. These frameworks teach parents to ask both "How do others feel?" and "What do you think is right?" Research shows that children who regularly engage in moral reasoning conversations develop stronger autonomous decision-making skills while maintaining empathy.

#### Example Framework:

When discussing peer conflicts, parents can guide children through perspective-taking ("How might your friend be feeling?") followed by agency-building ("What choice do you think would be most helpful here, and why?").



## California State Board Engagement

California is developing a statewide Portrait of Graduate framework emphasizing both social-emotional learning and student agency. Community voice shapes this process, and Belvedere-Tiburon parents can contribute their sophisticated understanding of character development.

**To Subscribe to State Board Updates send a blank message to [join-sbe-full-agenda-subscribers@mlist.cde.ca.gov](mailto:join-sbe-full-agenda-subscribers@mlist.cde.ca.gov)**

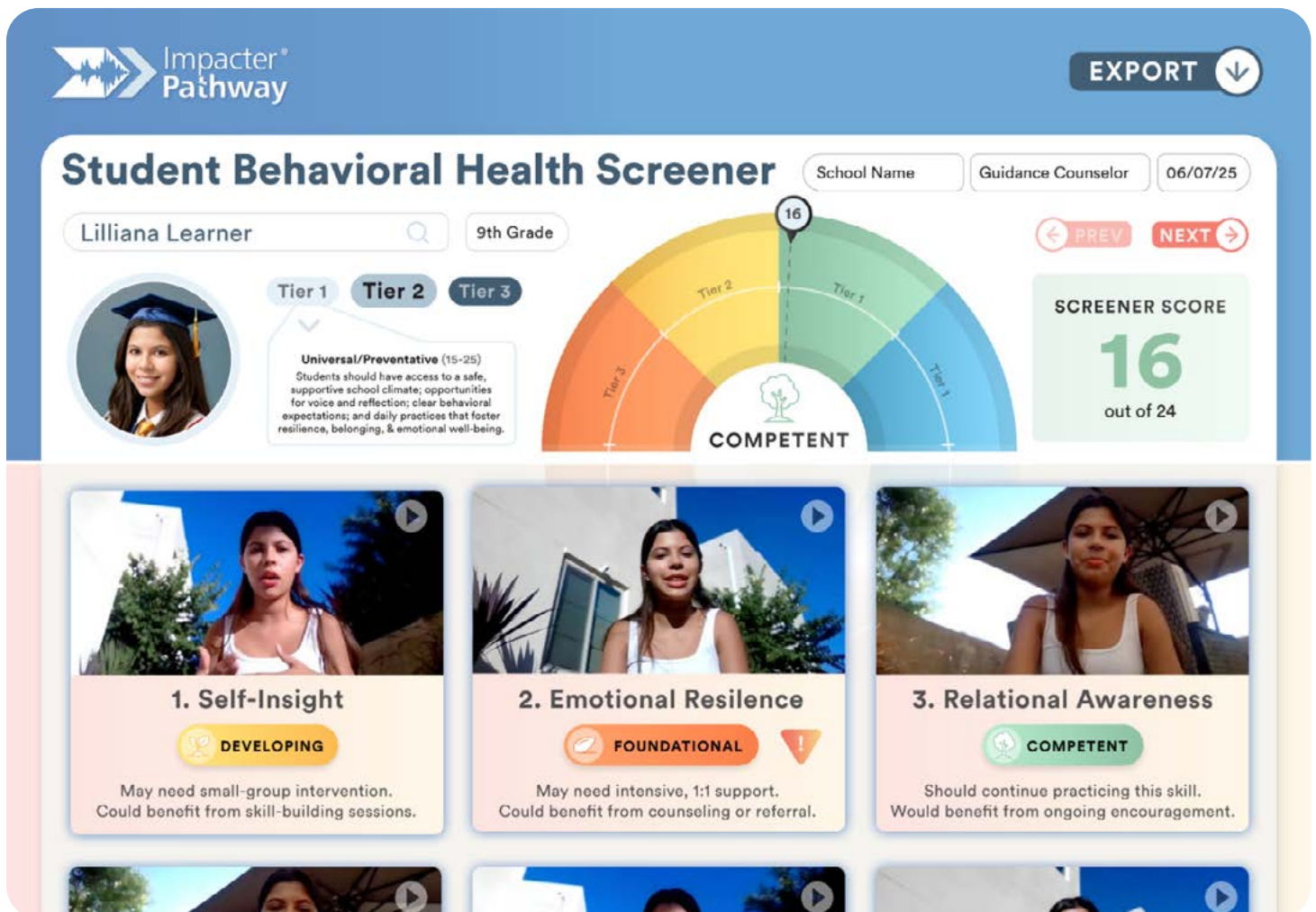
The Portrait of Graduate movement represents California's commitment to measuring what matters beyond test scores — exactly the values this community already embraces. Parent voice in this process ensures agency and autonomy receive equal emphasis with compassion and belonging.

## IMPACTER Pilot Opportunities

Current partnerships between Impacter Pathway and County Offices of Education and school districts are creating implementation opportunities across schools and countywide services. These partnerships focus on systematic measurement and development of both empathy and agency in student populations.

Depending on your district's existing service agreements with your County Office of Education, these evidence-based interventions may already be accessible through established educational offerings. The goal is not to replace existing programs but to enhance them with systematic agency-building components.

Check out free tools like Behavioral Health Screening and more at [impacterpathway.com](http://impacterpathway.com)



The screenshot displays the Impacter Pathway Student Behavioral Health Screener interface. At the top left is the Impacter Pathway logo. On the right, there is an 'EXPORT' button with a dropdown arrow. The main header reads 'Student Behavioral Health Screener' with input fields for 'School Name', 'Guidance Counselor', and a date '06/07/25'. Below this, the student's name 'Lilliana Learner' and grade '9th Grade' are shown. A circular profile picture of the student is on the left. A tiered gauge chart in the center shows the overall score of 16 out of 24, with the word 'COMPETENT' at the bottom. To the right of the gauge is a 'PREV' button and a 'NEXT' button. A box on the right displays the 'SCREENER SCORE 16 out of 24'. Below the gauge, there are three skill area cards, each with a video thumbnail and a status indicator: 1. Self-Insight (DEVELOPING) with a note 'May need small-group intervention. Could benefit from skill-building sessions.'; 2. Emotional Resilience (FOUNDATIONAL) with a note 'May need intensive, 1:1 support. Could benefit from counseling or referral.'; and 3. Relational Awareness (COMPETENT) with a note 'Should continue practicing this skill. Would benefit from ongoing encouragement.'

# THE COMMUNITY OPPORTUNITY & VISION FORWARD

Thorough analysis reveals three strategic advantages that position Belvedere-Tiburon for measurable impact on child development outcomes. This community has already demonstrated exceptional consensus-building capability and authentic engagement with character education, creating the ideal foundation for systematic enhancement rather than wholesale change.

## Aggregated Intelligence:

When individual parent insights combine into community-level data, patterns invisible at the family level become actionable at the systems level. Children who develop both empathy and agency become more effective at helping others, more resilient in facing challenges, and more satisfied in their relationships. They learn to ask both "What do others need?" and "What do I think is right?" — creating leaders who can navigate complexity with both compassion and confidence. Belvedere-Tiburon's semantic analysis provides the baseline for measuring this integration progress.

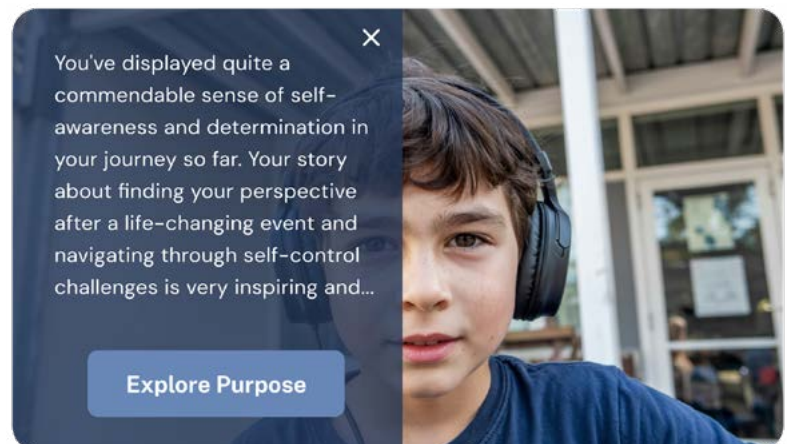
## Evidence-Based Implementation:

[Harvard's Making Caring Common Project](#) provides specific practices, conversation frameworks, and measurement tools for communities ready to enhance their existing strengths. IMPACTER's continued analysis can document progress, ensuring interventions create measurable change in both parent language and child development outcomes.

## Measurement Commitment:

Future Parent Lab sessions can track linguistic evolution, documenting whether systematic agency-building practices influence community discourse. Success would appear as increased frequency of choice-making vocabulary alongside maintained emphasis on empathy and connection.

With baseline measurements established and intervention pathways identified, Belvedere-Tiburon can provide quantifiable evidence for how communities successfully integrate empathy and autonomy in child development.



# Impacter<sup>®</sup> Pathway

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