

Materials

[Steps to Implement the LAP document](#)

[Note catcher](#)

[Note Catcher](#)

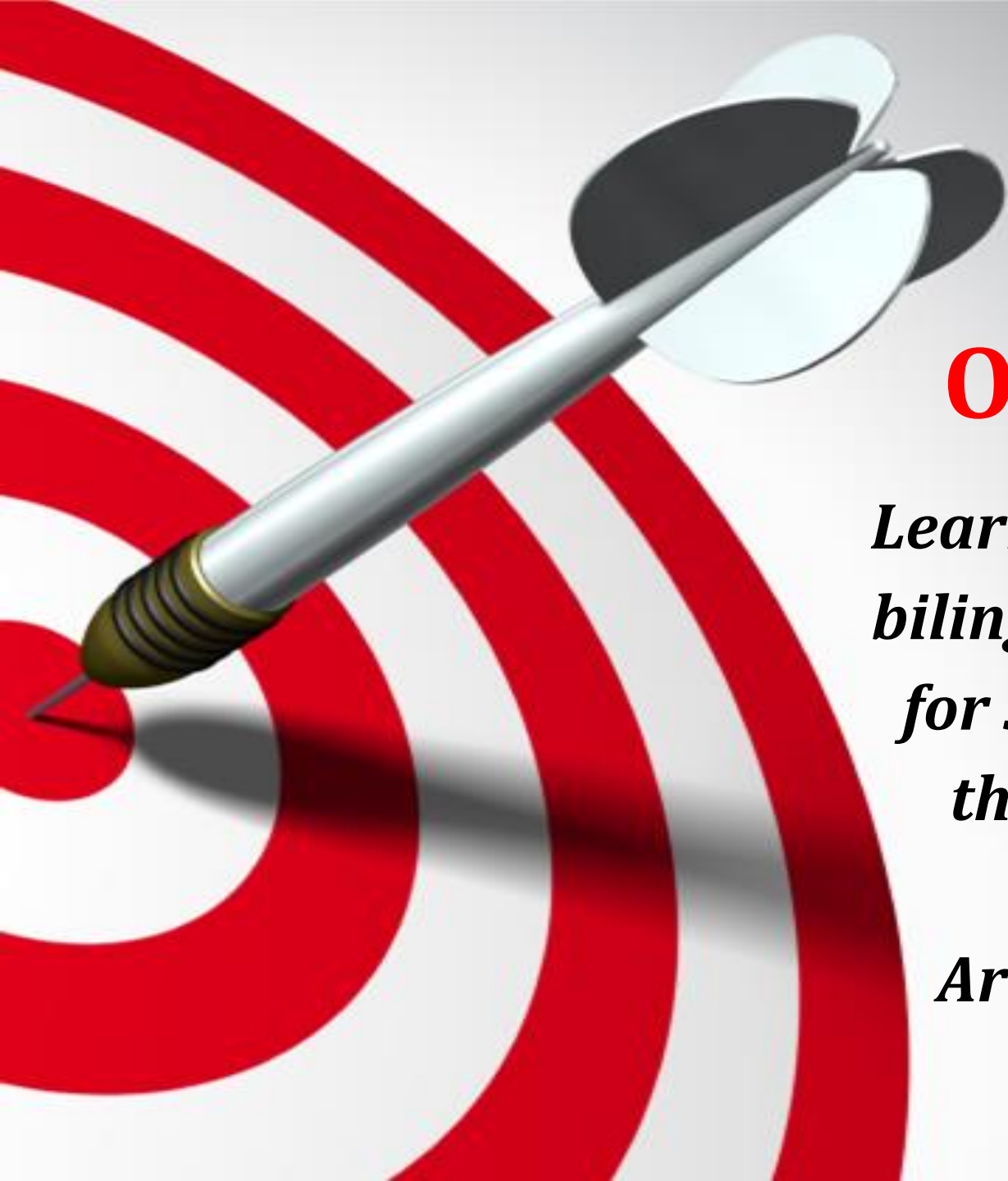
[LAP sample](#)

[DL LAP Samples](#)

Setting a Foundation for Biliteracy with a Language Articulation Plan



CABE
2.12.2020



OUTCOME

*Learn how to set your
bilingual program up
for success through
the creation of a
Language
Articulation Plan*

AGENDA



- What is a LAP?
- The research
- Your vision
- Choosing a program model
- Creating a LAP
- Lessons learned

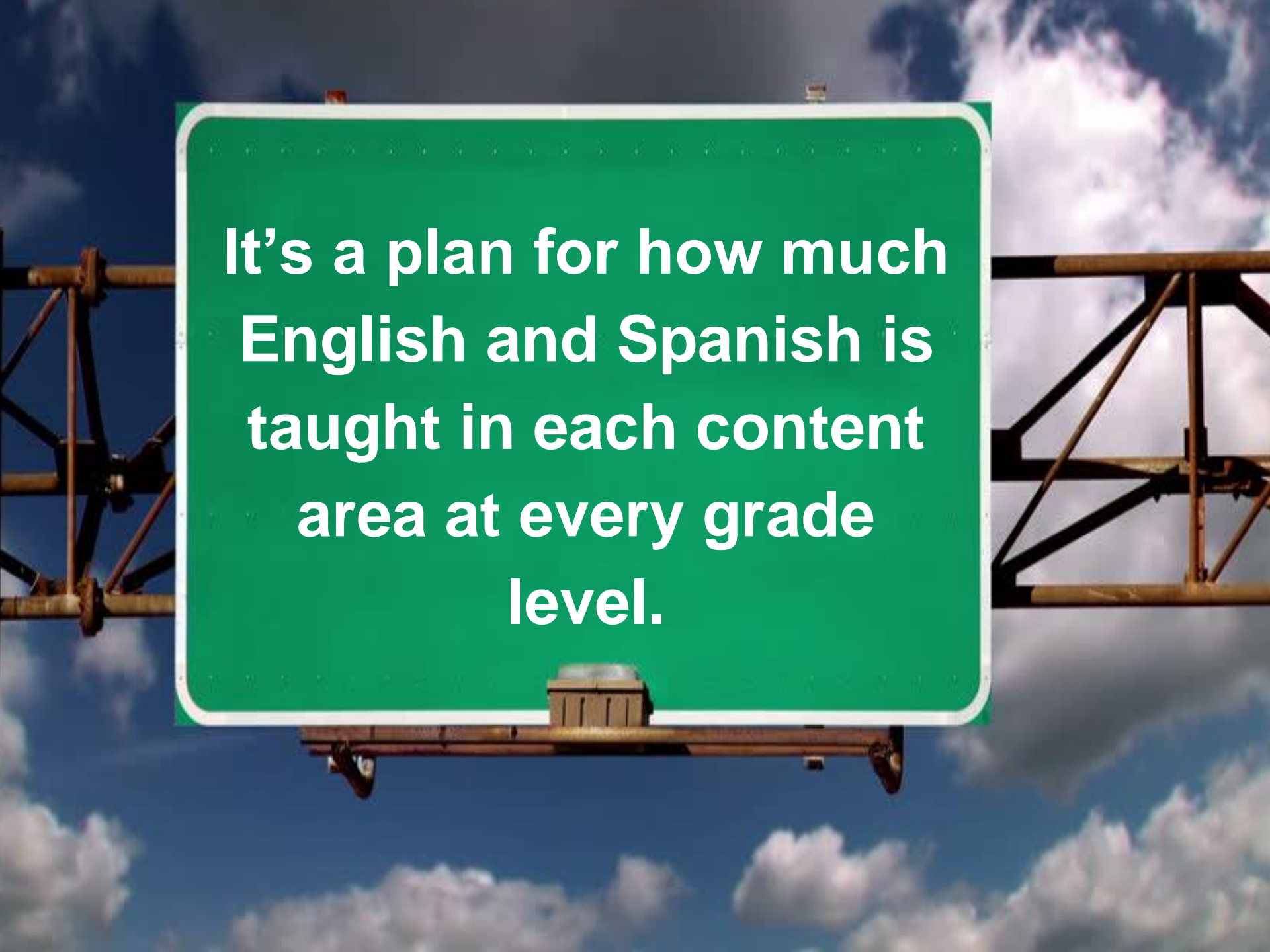
AGENDA



- **What is a LAP**
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- Lessons learned

A Language
Articulation
Plan is a
roadmap for
bilingual
programming
at the school
level



A green rectangular sign with rounded corners and a white border is mounted on a metal structure. The sign contains white text. The background is a blue sky with scattered white clouds. The metal structure consists of various beams and supports, including a horizontal beam at the bottom where the sign is attached.

**It's a plan for how much
English and Spanish is
taught in each content
area at every grade
level.**

LAP



Also known as
a CAP:
Curriculum
Articulation
Plan



LAP



A close-up photograph of a dark asphalt surface. Two parallel yellow lines are painted on the left side of the frame, running diagonally from the top-left towards the bottom-left. The text 'FIRST THINGS FIRST' is stenciled in yellow on the asphalt to the right of the lines. The word 'FIRST' is on the top line, 'THINGS' is on the bottom line, and 'FIRST' is on the bottom line, all in a bold, sans-serif font.

FIRST
THINGS FIRST

AGENDA

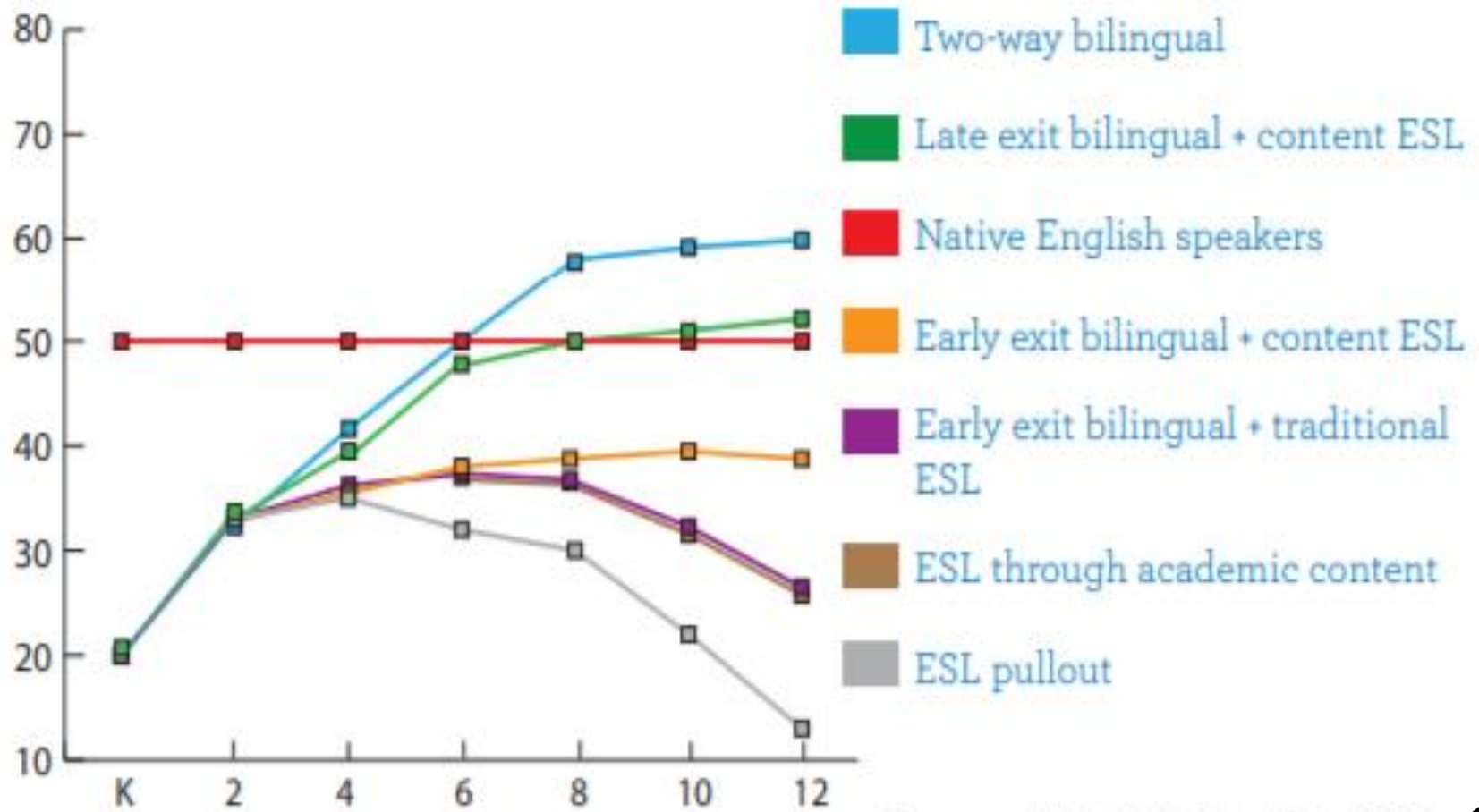


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A black and white conceptual image featuring a magnifying glass. The lens of the magnifying glass is centered on the word "RESEARCH", which is written in a large, bold, black, serif font. The background is a blurred, high-contrast image of text, with a bright light source at the top center creating a lens flare effect. The magnifying glass has a thick black frame and a handle extending downwards and to the right.

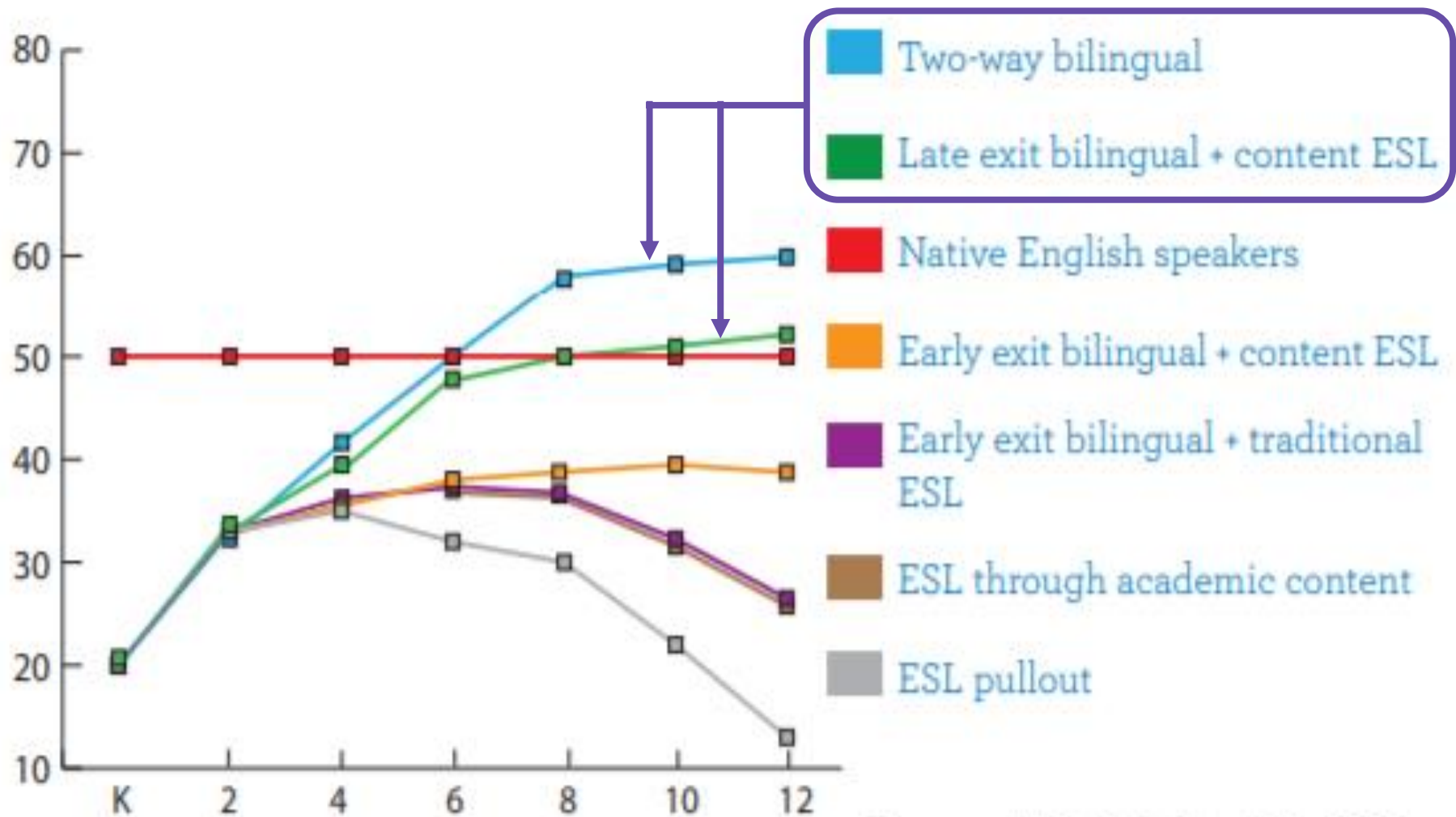
RESEARCH

What are your initial thoughts when you look at this graph?



Thomas, W.P., & Collier, V.P., 2002





Thomas, W.P., & Collier, V.P., 2002



Spanish-speaking students need **six** years of bilingual instruction, with eight years preferable for full gap closure.

Collier, Virginia and Thomas, Wayne. "The Astounding Effectiveness of Dual Language Education for All." NABE Journal of Research and Practice, 2.1, 2004.

GUIDING PRINCIPLES FOR DUAL LANGUAGE EDUCATION

THIRD EDITION



Elizabeth R. Howard • Kathryn J. Lindholm-Leary • David Rogers • Natalie Olague
José Medina • Barbara Kennedy • Julie Sugarman • Donna Christian

CAL CENTER
FOR APPLIED
LINGUISTICS

 Dual Language
Education
of New Mexico

 **SANTILLANA USA**
Language Education Experts

AGENDA



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vision



Defines the optimal desired future state,
the mental picture, of what a program
wants to achieve over time



Provides guidance and
inspiration as to what an
organization is focused
on achieving



A yellow diamond-shaped sign with a black border and two mounting bolts. The sign is mounted on a silver metal post. The background is a clear blue sky with scattered white clouds.

**KEEP
IT
SIMPLE**



Engage your community

What is your

V₄

I₁

S₁

I₁

O₁

N₁

Note
Catcher

bilingual & *biliterate*

Español

English



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Who is your program serving?

One-way Dual Language	Only one language group learns through two languages
Two-way Dual Language	Two (or more) language groups learn through two languages



What is
your
program
model?



Bilingual Education Models



Dual Language Models



Dual Language 90/10 Model	K	1	2	3	4	5	6
	10%	10%	20%	20%	30%	40%	50%
	90%	90%	80%	80%	70%	60%	50%

Dual Language 80/20 Model	K	1	2	3	4	5	6
	20%	20%	30%	40%	40%	50%	50%
	80%	80%	70%	60%	60%	50%	50%

Dual Language 50/50 Model	K	1	2	3	4	5	6
	50%	50%	50%	50%	50%	50%	50%
	50%	50%	50%	50%	50%	50%	50%

All Dual Language Models end with 50/50

Maintenance or Transitional Model



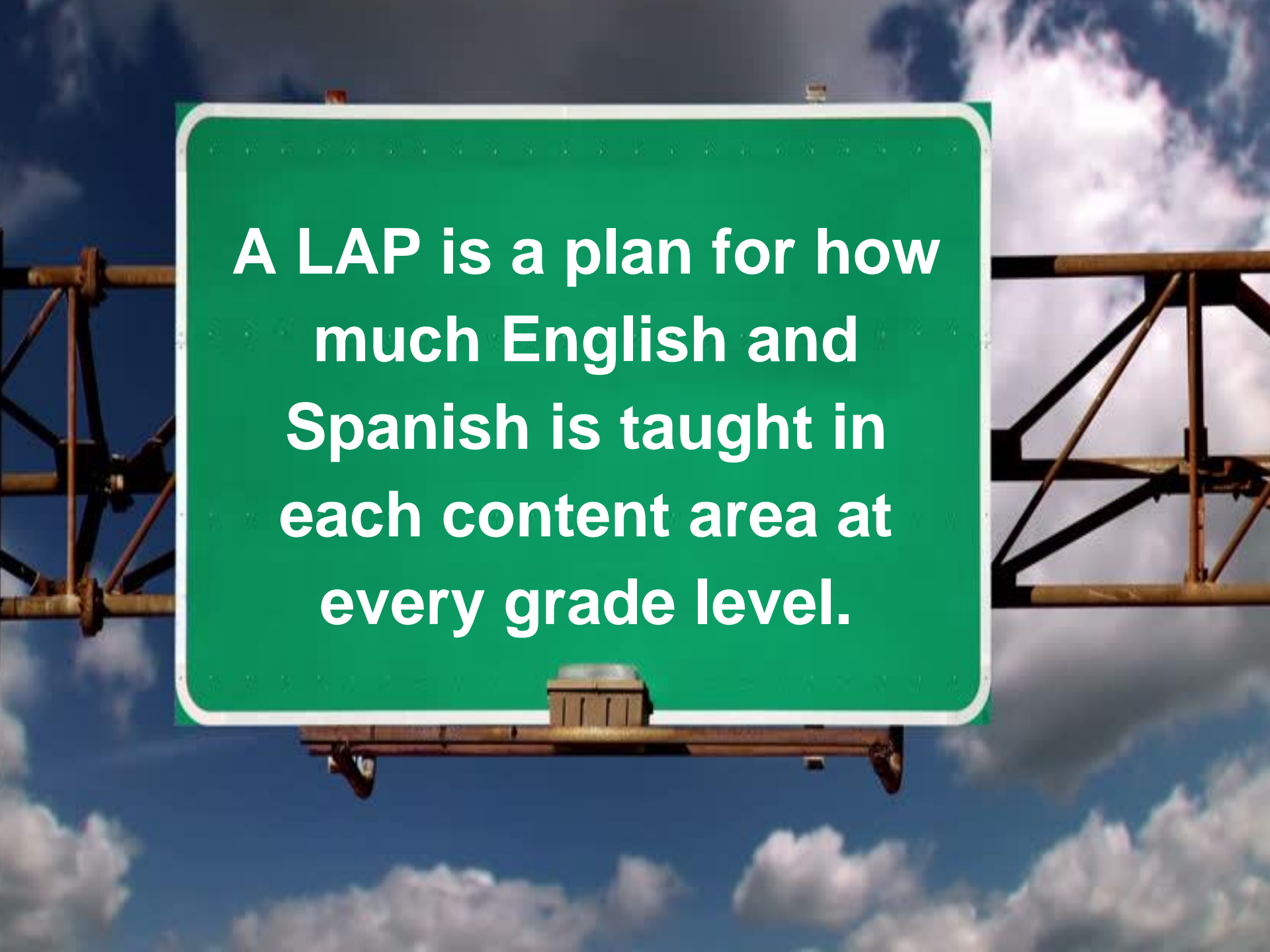
Transitional Bilingual Model	ECE	K	1	2	3	4	5
	10%	20%	30%	40%	50%	60%	80%
	90%	80%	70%	60%	50%	40%	20%

Maintenance Model	K	1	2	3	4	5	6
	10%	10%	30%	50%	70%	90%	90%
	90%	90%	70%	50%	30%	10%	10%

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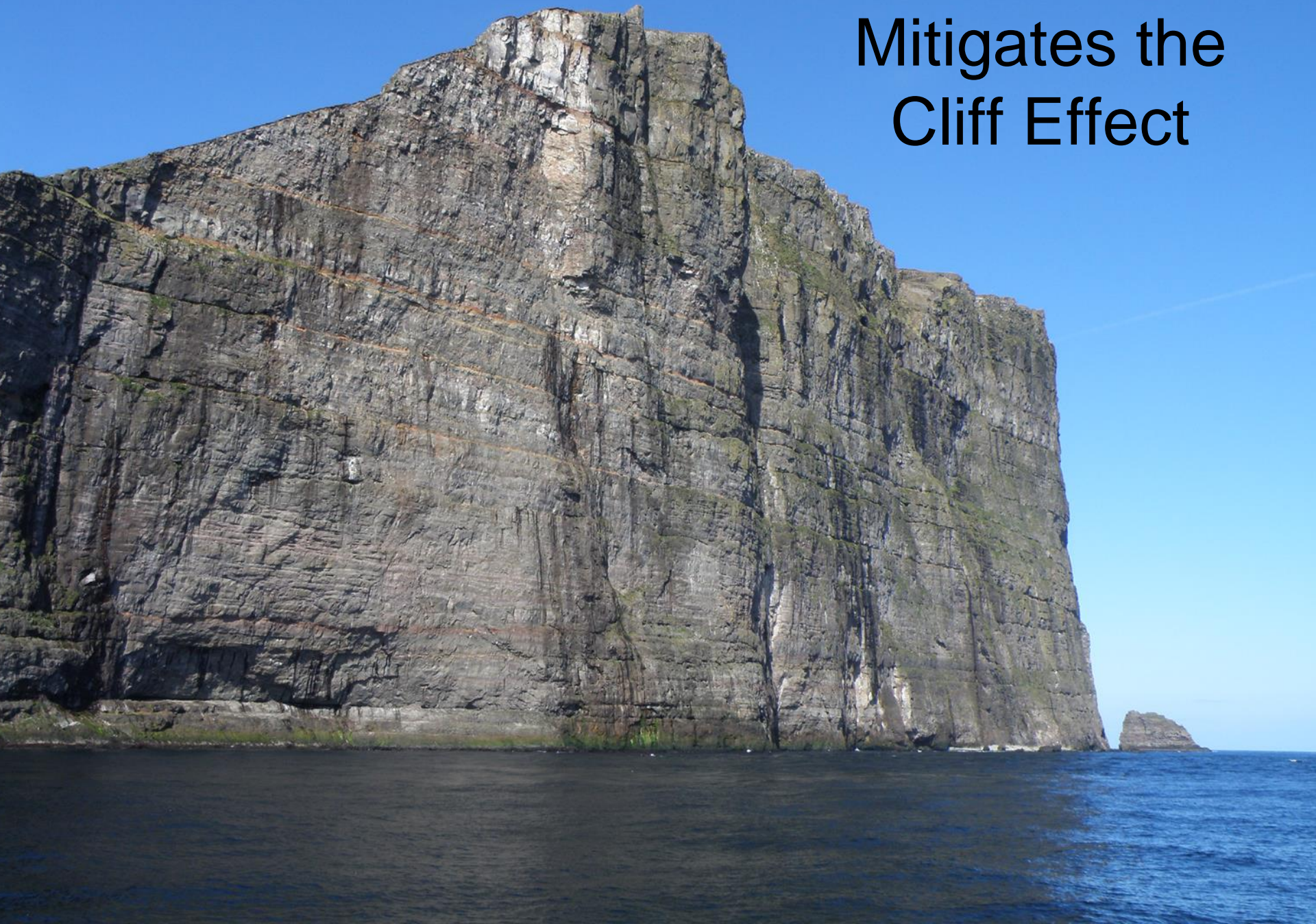
A green highway sign with white text is mounted on a metal structure. The sign is rectangular with rounded corners and a white border. The text is in a bold, white, sans-serif font. The background of the sign is a solid green color. The sign is set against a blue sky with white clouds. The metal structure is made of dark brown or black metal beams and bolts.

**A LAP is a plan for how
much English and
Spanish is taught in
each content area at
every grade level.**



It creates
alignment and
accountability

Mitigates the
Cliff Effect





While individual teachers' schedules are periodically modified, the model language allocation should not be changed. If teachers do not follow the language allocation of the program model, there are serious consequences for students and their teachers as they move up the grade levels...As these students move up the grades, the Language Other Than English (LOTE) proficiency becomes weakened, creating difficulties for them to cope with an increasingly demanding curriculum.



Soltero, 2016

Creating a LAP

A scenic landscape featuring a paved road that curves through a valley. The road is flanked by green, grassy hills. In the background, there are rugged, rocky mountains under a blue sky with scattered clouds. The overall scene is bright and clear.

**Note
Catcher**

A high-angle, rear-view photograph of a rowing team in a long, narrow boat on a body of water. The rowers are seated in a line, each with their own oar. The water is dark and shows ripples from the boat's movement. The rowers are wearing various athletic gear, including blue, striped, and black shirts. The text 'Involve the Team for Vertical Alignment' is overlaid on the right side of the image in a white, sans-serif font.

Involve the
Team for
Vertical
Alignment

$a^2 = 2ab + b^2 = (a+b)^2$
 $\cos \frac{A}{2} = \sqrt{\frac{1+\cos A}{2}}$
 $\cosh^2(x) - \sinh^2(x) = 1$
 $\csc(-x) = -\csc(x)$
 $\lim_{h \rightarrow 0} \frac{f(x_0+h) - f(x_0)}{h} = f'(x_0)$
 $\sinh(x) = \frac{e^x - e^{-x}}{2}$
 $X_{k+1} = (x_k + y/x_k)^{n-1} / y$
 $\sinh(x) = (e^x - e^{-x})/2$
 $\csc(-x) = -\csc(x)$
 $\log_n m = \frac{\log m}{\log n}$
 $\operatorname{sech}(x) = 1/\cosh(x) = 2/(e^x + e^{-x})$
 $\cos(-x) = \cos(x)$
 $\operatorname{csch}(x) = (e^x - e^{-x})/2$
 $\sim \forall x [\sim p(x)] \equiv \exists x [p(x)]$

Step 1: Determine the Minutes

Count the instructional minutes in a day

- Are specials included?

Background collage of mathematical formulas and diagrams including:
- Trigonometric identities: $\cos^2(x) + \sin^2(x) = 1$, $\csc(-x) = -\csc(x)$, $\tan(-x) = -\tan(x)$, $\cot(-x) = -\cot(x)$, $\cos(-x) = \cos(x)$, $\sin(-x) = -\sin(x)$, $\tan(aiz) = \frac{a \sin(z)}{\cosh(z)}$, $\operatorname{csch}(z) = \cos(iz)$, $\operatorname{sech}(z) = \sec(iz)$, $\operatorname{arccsch}(z) = \ln(1 + \sqrt{1+z^2})/z$, $\operatorname{arccoth}(z) = 1/2 \ln((z+1)/(z-1))$, $\operatorname{arctanh}(z) = 1/2 \ln((1+z)/(1-z))$, $\cosh(x) = (e^x + e^{-x})/2$, $\sinh(x) = (e^x - e^{-x})/2$, $\operatorname{sech}(x) = 1/\cosh(x) = 2/(e^x + e^{-x})$, $\operatorname{csch}(x) = (e^x - e^{-x})/2$
- Algebraic formulas: $a^2 = 2ab + b^2 = (a+b)^2$, $X^2 + 2Ax + a^2 = (X+A)^2$, $X^2 - 2ax + a^2 = (X-a)^2$, $a^m \times a^n = a^{m+n}$, $(ab)^m = a^m b^m$, $\log_n m = \frac{\log m}{\log n}$, $\ln(1 \pm \sqrt{1 \pm z^2})/z$
- Calculus: $\lim_{h \rightarrow 0} \frac{f(x_0+h) - f(x_0)}{h} = f'(x_0)$
- Geometry: $\text{Area of Triangle} = \frac{1}{2} \times \text{base} \times \text{height}$, $\text{Area of Parallelogram} = bh$, $\text{Area of Rectangle} = ab$, $\text{Area of Trapezoid} = h/2 (b_1 + b_2)$
- Trigonometry: Unit circle, right triangles, θ , $(1,0)$, $(0,-1)$, $(-1,0)$
- Probability/Logic: $\sim \forall x [p(x)] \equiv \exists x [\sim p(x)]$, Venn diagram with sets A and B in universal set U
- Other: $\sqrt[n]{x} = x^{1/n}$, $d = |x_1 - x_2|$, $\sqrt{A} = y_1 \times 2 \exp \frac{f(x_0+h) - f(x_0)}{h}$, $\operatorname{arccoth}(z) = 1/2 \ln((z+1)/(z-1))$, $\operatorname{arcsch}(z) = \ln(1 + \sqrt{1+z^2})/z$, $\operatorname{sech}(z) = \sec(iz)$, $\operatorname{arctanh}(z) = 1/2 \ln((1+z)/(1-z))$, $\operatorname{csch}(z) = \cos(iz)$, $b^2 = (a+b)^2$, $\frac{P(x)}{Q(x)} = \frac{G(x)}{Q(x)} + \frac{R(x)}{Q(x)}$, $\text{Square} = a^2$, $P_{n,r} = \frac{n!}{(n-r)!}$, $\text{Trapezoid} = h/2 (b_1 + b_2)$, $\text{Rectangle} = ab$, $\text{Area of Circle} = \pi r^2$, $\text{Area of Sector} = \frac{1}{2} r^2 \theta$, $\text{Area of Segment} = \frac{1}{2} r^2 (\theta - \sin \theta)$

$a^2 = 2ab + b^2 = (a+b)^2$
 $\cos \frac{A}{2} = \sqrt{\frac{1+\cos A}{2}}$
 $X^2 - a^2 = (x+a)(x-a)$
 $\cosh^2(x) - \sinh^2(x) = 1$
 $\tan^2(x) + \operatorname{sech}^2(x) = 1$
 $\csc(-x) = -\csc(x)$
 $\lim_{h \rightarrow 0} \frac{f(x_0+h) - f(x_0)}{h} = f'(x_0)$
 $\operatorname{Tr}_{n+1} = C_{n+1} a^{n+1} b^n$
 $\sin \frac{A}{2} = \sqrt{\frac{1-\cos A}{2}}$
 $S = \sqrt{\sum_{i=1}^N (x_i - \bar{x})^2}$
 $\log_n m = \frac{\log m}{\log n}$
 $\operatorname{sech}(x) = 1/\cosh(x) = 2/(e^x + e^{-x})$
 $\text{Parallelogram} = bh$
 $\begin{matrix} 1. P \rightarrow q \\ 2. q \rightarrow r \end{matrix} \} P \rightarrow r$
 $\begin{matrix} 1. P \rightarrow r \\ 2. q \rightarrow s \end{matrix} \} r \text{ vs } s$
 $\begin{matrix} 1. P \rightarrow q \\ 2. q \rightarrow r \\ 3. p \rightarrow q \end{matrix} \} 1. p \rightarrow r \text{ or } q$
 $\cosh(x) = (e^x + e^{-x})/2$
 $\operatorname{csch}(x) = (e^x - e^{-x})/2$
 $\sim \forall x [\sim p(x)] \equiv \exists x [p(x)]$
 $\vec{U} + \vec{V} = \vec{V} + \vec{U}$
 $X^2 - 2ax + a^2 = (x-a)^2$
 $a_n = a_1 r^{n-1}$
 $S_n = \frac{n}{2} [2a_1 + (n+1)d]$
 $S_n = \frac{a_1 - a_1 r^n}{1-r}$
 $Y_{i+1} = Y_i + (X_n/2)(a - Y_i^2)$
 $X_{n+1} = (X_n/2)(3 - aX_n^2)$
 $\operatorname{coth}(z) = i \cot(iz)$
 $\operatorname{arccoth}(z) = 1/2 \ln(z+1)/(z-1)$
 $\operatorname{csch}(z) = \operatorname{cosech}(iz)$
 $\operatorname{arcsch}(z) = \ln(1 + \sqrt{1+z^2})/z$
 $\operatorname{csch}(z) = \cos(iz)$
 $b^2 = (a+b)^2$
 $\operatorname{arctanh}(z) = 1/2 \ln((1+z)/(1-z))$
 $\frac{P(x)}{Q(x)} = G(x) + \frac{R(x)}{Q(x)}$

Based on your program model, how many minutes are in each language at each grade level?

90/10

335 instructional min./day

Program Model	Grade Level	# Min. Spanish	# Min. English
90/10	K	300	35
80/20	1st	270	65
70/30	2nd	235	100
60/40	3rd	200	135
50/50	4th/5th	168	167

Step 3: Decision Time

Which subjects
will be taught in
each language?



Sample 90/10 LAP

Sample Daily 90/10 LAP
335 instructional minutes/day (not including Specials)

Grade Level	Literacy (175 min)	Math (70 min)	Science/Social Studies (45 min)	ELD (45 min)
Kinder 90/10 300 Min Sp 35 Min Eng	Spanish	Spanish	Spanish	English
1st 80/20 270 Min Sp 65 Min Eng	Spanish (155 min) English (20 min)	Spanish	Spanish	English
2nd 70/30 235 Min Sp 100 Min Eng	Spanish (120 min) English (55 min)	Spanish	Spanish	English
3rd 60/40 200 Min Sp 135 Min Eng	Spanish (135 min) English (45 min)	English	Spanish	English
4th 50/50 170 Min Sp 165 Min Eng	Spanish (125 min) English (50 min)	English	Spanish	English
5th 50/50 170 Min Sp 165 Min Eng	Spanish (125 min) English (50 min)	English	Spanish	English

LANGUAGE ALLOCATION

GUIDELINES

Denver Public Schools

Overall Spanish to English Ratio

Overall Language Allocation Guidelines by Content for Grades ECE-5

ECE 90:10	Creative Curriculum Integrated literacy, science, social studies and mathematics				ELD
Kindergarten 80:20	Literacy	Mathematics	Science	Social Studies	ELD
	90	10			
1st Grade 70:30	Literacy	Mathematics	Science	Social Studies	ELD
	85	15			
2nd Grade 65:35	Literacy	Mathematics	Science	Social Studies	ELD
	80	20			
3rd Grade 50:50	Literacy	Mathematics	Science	Social Studies	ELD
	65	35			
4th Grade 40:60	Literacy	Mathematics	Science	Social Studies	ELD
	35	65			
5th Grade 40:60	Literacy	Mathematics	Science	Social Studies	ELD
	35	65			



Mathematics
Spanish instruction with Spanish language development, The Bridge, and English extensions

Spanish
English

Step 4: The Details



Sample LAP for K-1

Key: Blue = Spanish, Green = English							
Grade Level	Breakfast / Morning Routines	Literacy	Leader in Me	Math	Social Studies/ Science	ELD	Comments
K 90:10 280 min 45 min	20 mins.	2 hrs 10 mins (45 phonics & Writing) 150 mins. of Benchmark December: Bilingual book bags 1-2 Interactive Read Alouds 3rd week of each benchmark Unit	20 mins.	60 mins of Bridges	30 mins.	45 mins.	Add one English title to current Sp books bags (Old E Mondo Titles w/ Santos')
1st 80:20 250 min 75 min	20 mins.	2 hrs 10 mins (45 phonics & Writing) 50 mins. of Benchmark Units 1-8 &10 Unit 9 November: Add English books to book bags Throughout the year: Lotta Lara (we need to decide when) At Second semester, " Teach approx, 4 small group texts in Spanish and then 1 in English on a rotating basis for all students. During Spanish units of instruction, consider teaching 2-4 shared reading lessons from weeks 3 in English instead of Spanish Reinforce skills that students have mastered in Spanish and emphasize vocabulary and oral language development .	20 mins.	60 mins of Bridges 3 Number Corner in English https://docs.google.com/document/d/1qWaeU2pKOEEx1Zpx06menZ7BWjsGBpSKzJ2hQDRtDvg/edit https://docs.google.com/document/d/1KEvorgIA7o-holQorknsQzZLRP2bSv75u4AAo5d8Ro/edit https://docs.google.com/document/d/1QYAi3PRQvrtryiy_DwougzIV_Zw_g3jrhuONWEzPKyM/edit 1 workplace in English https://docs.google.com/document/d/1-JeaVtlZaXg7PdGcnQKFebNu3uLu0H9_XxkEh1dh9E0/edit	30 mins. During Unit 9 Science & Social Studies In L1	45 mins.	Agregaremos libros en inglés a 'student book bags' al igual que a la biblioteca.

The more
detailed, the
better!



LAP Sample:

tinyurl.com/y4p3sy44



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- **Lessons learned**



LESSONS
LEARNED



Leader and Community Buy-In



- IMPROVEMENT
- DEVELOPMENT
- SOLUTION



Implementation



Biliteracy from the Start

Kathy Escamilla
Susan Hopewell
Sandra Butvilofsky
Wendy Sparrow
Lucinda Soltero-González
Olivia Ruiz-Figueroa
Manuel Escamilla

**LITERACY SQUARED
IN ACTION**

Teaching for Biliteracy

**Strengthening Bridges
between Languages**

KAREN BEEMAN

CHERYL UROW



**BILITERACY
SPECIALIST**



support

**Let's circle
back on
that.**





NEXT STEPS

**Note
Catcher**

Q

&

A

Thank
you

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