AGENDA
Committee of the Whole
Center Cass School District No. 66
Prairieview Elementary School
699 Plainfield Road
Downers Grove, IL 60516
June 26, 2017
7:00 PM

I. **Call to Order, Roll Call, and Pledge of Allegiance**
II. **Reception of Visitors**
III. **Public Comments**
Members of the public may address the Board in response to items the Board has taken action on or plans to take action. Time allotted for comments is limited to five (5) minutes for each individual requesting to address the Board.
IV. **Discussion Items without Action**
    A. Design Advisory Committee - Update from Wold Architects   2
    B. Hattie Research: 195 Influences And Effect Sizes Related To Student Achievement   3
    C. 2017 IASB/IASA/IASBO Joint Annual Conference
V. **Executive Session**
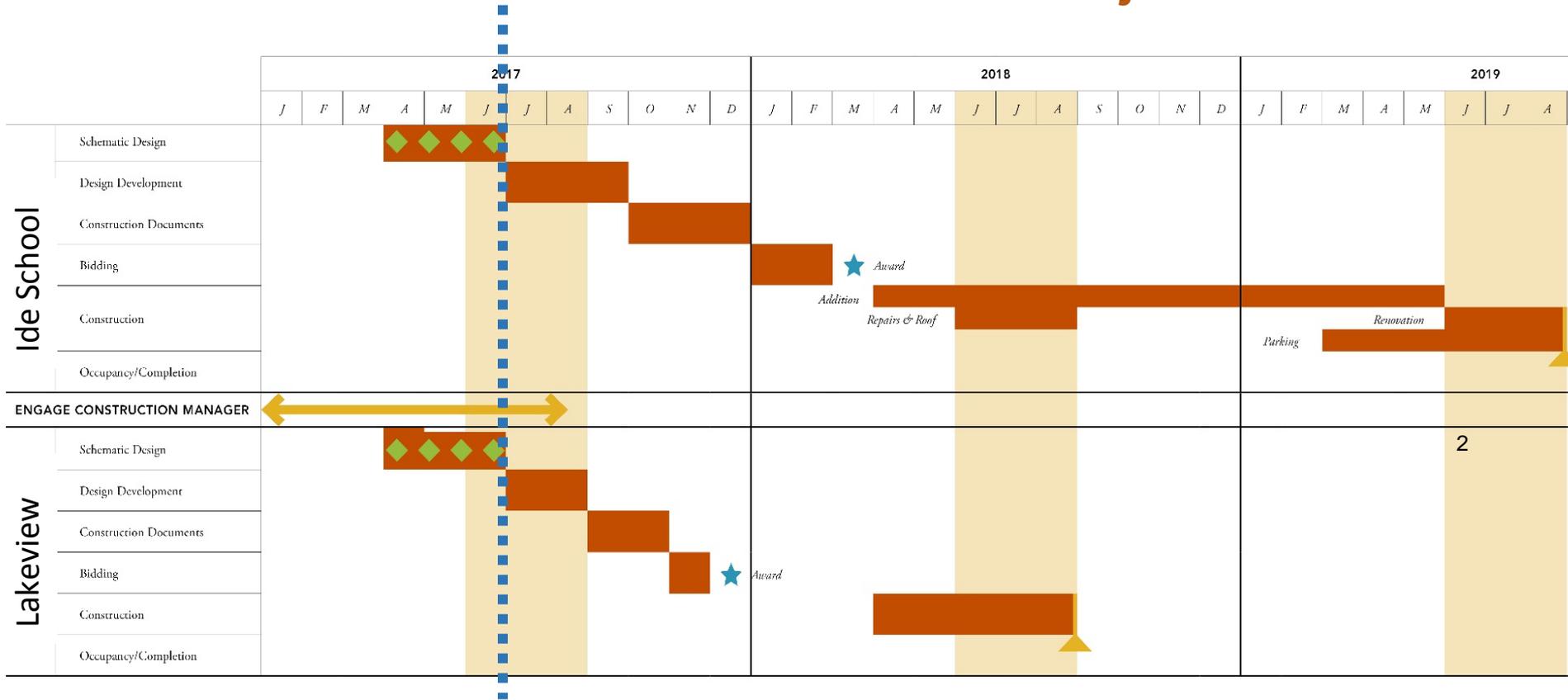   A. Superintendent Evaluation
VI. **Future Committee of the Whole Agenda Topics**
    A. Facilities: Goals, Objectives, Timeline for Facility Projects
    B. Facilities: Construction Manager Process
    C. Facilities: Purpose/Role of Facilities Committee
VII. **Adjournment**

CENTER-CASS 66
BOARD OF EDUCATION HANDOUTS
June 26, 2017

JOHN HATTIE RESEARCH ON
LEARNING INFLUENCES

HATTIE RESEARCH RANKING ACTIVITY – version 2

JOHN HATTIE RESEARCH

John Hattie (Aukland, New Zealand, 2009; Melbourne, Australia, 2015) and his team conducted a super-meta-analysis in 2009 of 800 meta-analyses of the educational research, representing over 50,000 studies, to measure the impact of 138 educational influences on learning (updated in 2015 to include 195 influences over 1200 meta-analyses). The 50,000 studies covered over 80 million students.

Hattie used effect-size ratings to rank these influences:

Ratings **below 0** have a reverse effect on learning – they make learning worse.
Ratings are not helpful (**0.0 - 0.15**) in improving learning – represents what a student would learn without schooling
Ratings from **0.16 – 0.39** are weakly associated with improving learning – typical teacher effects within a school year
Ratings from **0.4-0.59** have proven impact for improving learning
Ratings from **0.6 to 0.99** are strong impacts for improving learning. Ratings above **1.0** are considered "Super Factors" because a 1.0 effect-size represents a **four grade level gain**.

How would you rank the following influences from most effective to least effective? (1 = Most Effective, 16 = least effective)

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JOHN HATTIE LEARNING RESEARCH ACTIVITY ver. 2

Your Ranking	Learning Influences
	A. Class Size
	B. Cognitive Task Analysis
	C. Collective Teacher Efficacy (PLC Teams)
	D. Conceptual Change Programs
	E. Enrichment
	F. Homework
	G. Individualized Instruction
	H. Mainstreaming
	I. Mobility
	J. Not Labeling Students
	K. Professional Development
	L. Providing Formative Evaluation
	M. Spelling Programs
	N. Student Control Over Learning
	O. Summer Vacation
	P. Team Teaching
	Q. Time on Task
	R. Whole Language

AN EXPERIMENT:

ALIGNMENT OF CENTER-CASS 66 STRATEGIC PLAN STRATEGIES
TO PURPOSE, HATTIE RESEARCH

GOAL 1: *Every student will demonstrate continual learning growth to reach his or her maximum potential*			
Utilize technology, student interests, and student goal-setting progress to differentiate and motivate learning for each student across a rigorous and challenging curriculum.	Develop 21st Century Learning framework	Increase student motivation for learning Prepare students for 21st Century learning needs	**PROVEN IMPACT:** 0.55 CAI with Other Students **PROVEN IMPACT:** 0.44 Motivation **PROVEN IMPACT:** 0.40 Goals
Establish and implement common, social-emotional learning norms for students and staff at every school.	Bring common SEL vocabulary to staff	Create a safe and supportive learning environment for students	**STRONG INFLUENCE:** 0.63 Classroom Behavior **PROVEN IMPACT:** 0.52 Classroom Management **PROVEN IMPACT:** 0.44 Motivation **PROVEN IMPACT:** 0.40 Goals **NOT YET:** 0.34 Decreasing Disruptive Behavior
Prioritize existing and future facility needs through the development and implementation of a facility needs study.	Develop a master facilities plan that supports 21st Century Learning	Create a physical learning environment that supports 21st Century Learning needs	DNA

GOAL 2: LEARNING ENVIRONMENT – *The learning community will challenge, inspire, and empower all members within a safe and supportive environment.*			
Utilize technology, student interests, and student goal-setting progress to differentiate and motivate learning for each student across a rigorous and challenging curriculum.	Develop 21st Century Learning framework	Increase student motivation for learning Prepare students for 21st Century learning needs	**PROVEN IMPACT:** 0.55 CAI with Other Students **PROVEN IMPACT:** 0.44 Motivation **PROVEN IMPACT:** 0.40 Goals
Establish and implement common, social-emotional learning norms for students	Bring common SEL vocabulary to staff	Create a safe and supportive learning environment for	**STRONG INFLUENCE:** 0.63 Classroom Behavior **PROVEN IMPACT:**

and staff at every school.		students	0.52 Classroom Management **PROVEN IMPACT:** 0.44 Motivation **PROVEN IMPACT:** 0.40 Goals **NOT YET:** 0.34 Decreasing Disruptive Behavior
	Prioritize existing and future facility needs through the development and implementation of a facility needs study.	Develop a master facilities plan that supports 21st Century Learning	Create a physical learning environment that supports 21st Century Learning needs	DNA

GOAL 3: PROFESSIONAL ENVIRONMENT – *A high-performing, professional environment will emphasize staff collaboration to achieve continued professional growth that aligns with District priorities.*			
Require and support continuous growth for each staff member through connected professional learning opportunities that are aligned to the District's goals.	Begin implementation of PGPs (Professional Growth Plans)	Align individual teacher professional growth desires and needs to District learning priorities	Many strategies for individual teachers in the **STRONG IMPACT** section **PROVEN IMPACT:** 0.45 Professional Development
Implement regularly scheduled, protected team planning time during the school day to establish grade level/department PLC teams that will assess student work through data and adjust instruction to meet student learning needs.	None in 2016-17	Strengthen PLC teams as the center for aligning professional growth to District student learning priorities	**SUPER FACTOR:** 1.57 Collective Teacher Efficacy (ex. - PLC Teams for teachers) **PROVEN IMPACT:** 0.43 Philosophy in Schools

Takeaways & Cautions:

1. Hattie rates Systems Accountability as 0.31 NOT YET, meaning systems accountability *in and of itself* isn't supported by strong research evidence as an influencer that improves student learning. Yet 1.57 Collective Teacher Efficacy (ex. PLC Teams) is a SUPER FACTOR – a learning game changer

that is school-wide. One can make a cogent argument that without a systems orientation, it is not nearly as likely that *effective* PLC teams will become established and endure long-term, particularly across an entire learning organization.

2. This suggests that the systems part of learning improvement is about creating environmental conditions that are hospitable to receiving the teacher-based influencers that can make a difference across a school or district, not just a classroom.

3. This means your Strategic Plan becomes the backbone for creating a learning improvement culture of high expectations. Into that culture of high expectations go the Hattie influencers –improved learning's flesh and blood - that can guide the District toward its greatest ROI around learning.

4. Most of Hattie's impactful influencers are specific teaching strategies that are only implemented by teachers, though they can be expressed District-wide as cultural norms expected of all teachers. As one gets to the less impactful/not impactful influencers, the options expand to situational variables such as home conditions, demographic issues or other situations beyond the direct locus of control of the school or classroom (ex. – sleep, mobility, depression).

5. This allows Hattie's research to be used as a learning ROI yardstick in two ways: first, what to chase in terms of things that can be done to make the biggest difference and second, what to avoid or stop doing that doesn't promise nearly the ROI of the influencers ranked above it.

6. The Strategic Plan, though heavily focused on learning and the improvement of learning, goes beyond learning alone. It is a blueprint for becoming a successful organization overall, including more than just a focus on learning. This is why Partnership and Resources goals don't align to Hattie's research and why the facilities initiative doesn't link to a Hattie influencer. Think of Hattie and the Strategic Plan as two circles, with Hattie being the circle within the larger Strategic Plan circle.

7. Your Strategic Plan is based on sound *effective organizations* research (Baldrige, etc.). Hattie focuses on the *learning* research base. Both are compatible one to the other but neither are the same. Nor should they be.

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John Hattie Effect Size Influences Rankings for Impacts on Learning

John Hattie developed a way of ranking various influences in different meta-analyses related to learning and achievement according to their effect sizes. In his ground-breaking study "Visible Learning" he ranked 138 influences that are related to learning outcomes from very positive effects to very negative effects. Hattie found that the average effect size of all the interventions he studied was 0.40. Therefore he decided to judge the success of influences relative to this 'hinge point', in order to find an answer to the question "What works best in education?"

Hattie studied six areas that contribute to learning: the student, the home, the school, the curricula, the teacher, and teaching and learning approaches. But Hattie did not only provide a list of the relative effects of different influences on student achievement. He also tells the story underlying the data. He found that the key to making a difference was making teaching and learning visible. He further explained this story in his book "Visible learning for teachers".

John Hattie updated his list of 138 effects to 150 effects in Visible Learning for Teachers (2011), and more recently to a list of 195 effects in The Applicability of Visible Learning to Higher Education (2015). His research is now based on nearly 1200 meta-analyses – up from the 800 when Visible Learning came out in 2009. According to Hattie the story underlying the data has hardly changed over time even though some effect sizes were updated and we have some new entries at the top, at the middle, and at the end of the list.

<div align="right">Visible-learning.org</div>

0.4 and above = research-based evidence of positive
  impact
1.0 effect size = 4 grade level gain

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1.00 and above = Most Impactful (Super Factors)
0.60 – 0.99 = Strong Impact (0.99)
0.40 – 0.59 = Proven Impact
0.39 – 0.16 = Not Yet
0.15 to negative number = Not Helpful to Harmful (below)

2009 N = 138   2011 N = 150   2015 N = 195

= Outlier Ranking # = Changes Levels

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Most Impactful Effect Size Influences (Super Factors)	2009	2011	2015	2016
Teacher Estimates of Achievement			1.62	1.62
Collective Teacher Efficacy (ex. PLCs for Teachers)			1.57	1.57
Self-reported Grades	1.44	1.44	<mark>1.33</mark>	<mark>1.33</mark>
Piagetian Programs	1.28	1.28	1.28	1.28
Conceptual Change Programs			1.16	1.16
Response to Intervention		1.07	1.07	1.07

1. **Teacher estimates of achievement** (*d* = 1.62). Sadly, this reflects the accuracy of teachers' knowledge of students in their classes, not "teacher expectations", so this is not a factor teachers can use to boost student achievement.
2. **Collective teacher efficacy** *(d* = 1.57). This is a factor that can be manipulated at a whole school level. It involves helping all teachers on the staff to understand that the way they go about their work has a significant impact on student results – for better or worse. Simultaneously, it involves stopping them from using other factors (e.g. home life, socio-economic status, motivation) as an excuse for poor progress. Yes, these factors hinder learning, but a great teacher will always *try* to make a difference despite this, and they often succeed.
3. **Self-reported grades** (*d* = 1.33). Again, this is a factor that teachers can't use to boost student achievement. It simply reflects the fact that students are pretty good at knowing what grade they will get on their report card before they read it.

4. **Piagetian levels** (d = 1.28). This is the third super factor that teachers can do nothing about. It simply means that students who were assessed as being at a higher Piagetian level than other students do better at school. The research does not suggest that trying to boost students' Piagetian levels has any effect.

5. **Conceptual change programs** (d = 1.16). This is a promising one. The research refers to the type of textbook used by secondary science students. Some textbooks simply introduce new concepts. Yet, students have already formed their own understanding of the world around them, often including many misconceptions. These misconceptions can hinder deeper levels of learning. Conceptual change textbooks introduce concepts and at the same time discuss relevant and common misconceptions. While the current research is limited to science textbooks in secondary school, it is reasonable to predict that when teachers apply this same idea to introduce any new concept in their classroom, it could have a similar impact.

6. **Response to Intervention** (d = 1.07). This is a structured program designed to help at-risk students make enough progress and ideally achieve comparable results to their peers. There is plenty of commercial literature and material to help schools use RTI, but basically, it involves screening students to see who is at risk, deciding whether supporting intervention will be given in class or out of class, using research-based teaching strategies within the chosen intervention setting, closely monitoring the progress, and adjusting the strategies being used when enough progress is not being made. While the program is designed for at-risk students, the principles behind it are the same advocated by John Hattie as being applicable for all students. Note – Response to Intervention (RTI) is increasingly being referred to as Multi-Tier System of Supports (MTSS). The two terms mean the same thing.

– Shaun Killian, The Australian Society for Evidence Based Teaching

Strong Impact	2009	2011	2015	2016
Teacher Credibility		0.90	0.90	0.90
Micro Teaching	0.88	0.88	0.88	0.88
Cognitive Task Analysis			0.87	0.87

Classroom Discussion		0.82	0.82	0.82
Interventions for Learning Disabled	0.77	0.77	0.77	0.77
Teacher Clarity	0.75	0.75	0.75	0.75
Feedback	0.73	0.75	0.73	0.74
Providing Formative Evaluation	0.90	0.90	0.68	0.68
Acceleration	0.88	0.68	0.68	0.68
Creativity Programs	0.65	0.65	0.65	0.65
Self-Questioning	0.64	0.64	0.64	0.64
Concept Mapping	0.57	0.60	0.64	0.64
Problem Solving Teaching	0.61	0.61	0.63	0.63
Classroom Behavioral	0.80	0.68	0.63	0.63
Prior Achievement	0.67	0.65	0.63	0.63
Time On-Task				0.62
Vocabulary Programs	0.67	0.67	0.62	0.62
Not Labeling Students	0.61	0.61	0.61	0.61
Spaced Practice	0.71	0.71	0.60	0.60
Teaching Strategies	0.60	0.62	0.60	0.60
Direct Instruction	0.59	0.59	0.60	0.60
Repeated Reading Programs	0.67	0.67	0.60	0.60
Study Skills	0.59	0.63	0.60	0.60

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Proven Impact	2009	2011	2015	2016
Pre-term Birth Rate	0.54	0.53	0.59	0.59
Spelling Programs			0.58	0.58
Tactile Stimulation Programs	0.58	0.58	0.58	0.58
Service Learning			0.58	0.58
CAI with Learning Needs Students			0.57	0.57
Mastery Learning	0.58	0.58	0.57	0.57
Pre School with At Risk Students			0.56	0.56
Visual-Perception Programs	0.55	0.55	0.55	0.55
Peer Tutoring	0.55	0.55	0.55	0.55
CAI with Other Students			0.55	0.55
Cooperative Learning vs. Individual Learning	0.59	0.59	0.55	0.55
Interactive Video Methods	0.52	0.52	0.54	0.54
Socio-Economic Status	0.57	0.52	0.54	0.54
Classroom Cohesion	0.53	0.53	0.53	0.53
Meta-Cognitive Strategies	0.69	0.69	0.53	0.53
Comprehension Programs	0.58	0.60	0.53	0.53
Scaffolding	0.53	0.53	0.53	0.53
Cooperative Learning vs. Competitive Learning	0.54	0.54	0.53	0.53
Peer Influences	0.53	0.53	0.53	0.53
Frequent Effects of Testing	0.34	0.34	0.52	0.52
Phonics Instruction	0.60	0.54	0.52	0.52
Classroom Management	0.52	0.52	0.52	0.52
Home Environment	0.57	0.52	0.52	0.52
Teacher-Student Relationships	0.72	0.72	0.52	0.52

Play Programs	0.50	0.50	0.50	0.50
Second Chance Programs (e.g. Reading Recovery)	0.50	0.50	0.50	0.50
Parental Involvement	0.51	0.49	0.49	0.49
Mathematics	0.45	0.40	0.49	0.49
Writing Programs	0.44	0.44	0.49	0.49
Questioning	0.46	0.48	0.48	0.48
School Effects	0.48	0.48	0.48	0.48
Self-Concept	0.43	0.47	0.47	0.47
Integrated Curricula Programs	0.39	0.39	0.47	0.47
Student Rating of Teaching	0.44	0.48	0.47	0.47
Small Group Learning	0.49	0.49	0.47	0.47
Concentration & Engagement	0.48	0.48	0.45	0.45
Relative Age Within a Class			0.45	0.45
Professional Development	0.62	0.51	0.45	0.45
Computer Assisted Instruction	0.37	0.37	0.45	0.45
Science Programs	0.40	0.42	0.44	0.44
Early Intervention	0.47	0.47	0.44	0.44
CAI with College Students			0.44	0.44
Motivation	0.48	0.48	0.44	0.44
CAI with Elementary Students			0.44	0.44
Outdoor/Adventure Programs	0.52	0.52	0.43	0.43
Teacher Expectations	0.43	0.43	0.43	0.43
School Size	0.43	0.43	0.43	0.43
Philosophy in Schools			0.43	0.43
Intelligent Tutoring Programs			0.43	0.43
Communication Strategies			0.43	0.43

	2009	2011	2015	2016
Exposure to Reading	0.36	0.42	0.42	0.42
Comprehensive Instruction			0.42	0.42
CAI in Writing			0.42	0.42
Behavior Organizers	0.41	0.41	0.41	0.41
Goals	0.56	0.50	0.40	0.40
After-School Programs				0.40
Social Skills Programs				0.40

Not Yet

	2009	2011	2015	2016
Cooperative Learning				0.39
Enrichment	0.39	0.39	0.39	0.38
Career Interventions	0.38	0.38	0.38	0.38
Psychotherapy Programs		0.38	0.38	0.37
Gaming Simulations	0.33	0.33	0.37	0.37
Music-Based Programs			0.37	0.37
Drama/Arts Programs	0.35	0.35	0.37	0.37
Worked Examples	0.57	0.57	0.37	0.37
Reducing Anxiety	0.40	0.40	0.37	0.36
Student Centered Teaching		0.54	0.36	0.36
Creativity	0.35	0.35	0.35	0.35
Attitude to Content Domains	0.36	0.35	0.35	0.35
Inquiry-Based Teaching	0.31	0.31	0.35	0.35
Bilingual Programs	0.37	0.37	0.35	0.35
Decreasing Disruptive Behavior	0.34	0.34	0.34	0.34

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Various Teaching on Creativity		0.34	0.34	0.34
Adjunct Aids	0.37	0.37	0.34	0.34
Pre-School Programs	0.45	0.45	0.33	0.33
Head Start Programs			0.33	0.33
Principals/School Leaders	0.36	0.39	0.33	0.33
Inductive Teaching	0.33	0.33	0.33	0.33
Ethnicity	0.32	0.32	0.32	0.32
Online, Digital Tools			0.32	0.32
Teacher Effects	0.32	0.32	0.32	0.32
Drugs	0.33	0.32	0.32	0.32
Systems Accountability		0.31	0.31	0.31
Ability Grouping for Gifted Students	0.30	0.30	0.30	0.30
CAI in Mathematics			0.30	0.30
CAI with High School students			0.30	0.30
Collaborative Learning			0.29	0.29
Mobile Phones			0.29	0.29
Homework	0.29	0.29	0.29	0.29
Home Visiting	0.29	0.29	0.29	0.28
Desegregation	0.28	0.28	0.28	0.28
Early Intervention in the Home			0.27	0.27
Teaching Test Taking	0.22	0.27	0.27	0.27
Use of Calculators	0.27	0.27	0.27	0.27
CAI in Reading/Literacy			0.26	0.26
Volunteer Tutors		0.26	0.26	0.26
Use of Power Point			0.26	0.26
Teaching reforms	0.22	0.22	0.25	0.25

Early Intervention			0.25	0.25
Married Parents vs. Divorced Parents			0.25	0.25
Mainstreaming	0.28	0.24	0.24	0.24
Bullying			0.24	0.24
Values/Moral Programs	0.24	0.24	0.24	0.24
Illness	0.23	0.25	0.24	0.24
Religious Schools	0.23	0.23	0.24	0.24
Competitive vs. Individual Instruction	0.24	0.24	0.24	0.23
Individualized Instruction	0.23	0.22	0.23	0.23
CAI in Science			0.23	0.23
Programmed Instruction	0.24	0.23	0.23	0.23
Summer School	0.23	0.23	0.23	0.23
Finances	0.23	0.23	0.23	0.23
Matching Style of Learning	0.41	0.17	0.23	0.23
Exercise/Relaxation	0.28	0.28	0.22	0.22
Visual/Audio-Visual Methods	0.22	0.22	0.22	0.22
Teacher Verbal Ability		0.22	0.22	0.22
Extracurricular Programs	0.17	0.19	0.21	0.21
Class size	0.21	0.21	0.21	0.21
CAI in Small Groups			0.21	0.21
School Cultural Effects			0.20	0.20
Aptitude/Treatment Interactions	0.19	0.19	0.19	0.19
Learning Hierarchies	0.19	0.19	0.19	0.19
School Counseling Effects		0.18	0.19	0.19
Team Teaching	0.19	0.19	0.19	0.19
Special Collage Programs	0.24	0.18	0.18	0.18

	2009	2011	2015	2016
Within Class Grouping	0.16	0.18	0.18	0.18
Family Structure	0.17	0.18	0.18	0.18
Web-based Learning	0.18	0.18	0.18	0.18
Personality	0.19	0.18	0.17	0.17
Teacher Immediacy	0.16	0.16	0.16	0.16
Adopted Children			0.16	0.16
Home-School Programs	0.16	0.16	0.16	0.16

Not Helpful to Harmful	2009	2011	2015	2016
Out of School Curricula	0.09	0.09	0.15	0.15
Sentence Combining Programs	0.15	0.15	0.15	0.15
Distance Education	0.09	0.11	0.13	0.13
Problem-Based Learning	0.15	0.15	0.12	0.12
Ability grouping	0.12	0.12	0.12	0.12
Diet	0.12	0.12	0.12	0.12
Juvenile Delinquent Programs			0.12	0.12
Teacher Education	0.11	0.12	0.12	0.12
Diversity of students		0.05	0.11	0.11
Mentoring	0.15	0.15	0.09	0.09
Subject Matter Knowledge	0.09	0.09	0.09	0.09
School Calendars/Timelines		0.09	0.09	0.09
Detracking			0.09	0.09
Perceptual-Motor Programs	0.08	0.09	0.08	0.08
Single Sex Schools			0.08	0.08

Gender on Achievement	0.12	0.12	0.08	0.08
Charter schools	0.20	0.20	0.07	0.07
Sleep			0.07	0.07
Whole language	0.06	0.06	0.06	0.06
Types of Testing			0.06	0.06
College Halls of Residence	0.05	0.05	0.05	0.05
Multi-Age/Grade Classes	0.04	0.04	0.04	0.04
Parental Employment			0.03	0.01
CAI in Distance Education			0.01	0.01
Student Control Over Learning	0.04	0.04	0.01	0.01
Open vs. Traditional Classrooms	0.01	0.01	0.01	0.01
Summer Vacation	-0.09	-0.02	-0.02	-0.02
Welfare Policies	-0.12	-0.12	-0.12	-0.12
Retention	-0.16	-0.13	-0.17	-0.17
Television	-0.18	-0.18	-0.18	-0.18
Home Corporal Punishment			-0.33	-0.33
Mobility	-0.34	-0.34	-0.34	-0.34
Depression			-0.42	-0.42