



Everyone Has a Role in Effective Data Cultures

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Data Use is Everyone's Responsibility

Remember –

Without data, you are only an opinion.



Introductions

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Who is "in the room?"

- » U.S. Department of Education staff
- » State education agency staff
- » School district staff
- » Philanthropy staff
- » Principals
- » Teachers
- » Others



The Wisdom of Dilbert



What Research Tells Us about Building Data Cultures

A Rigorous Starting Point: IES Practice Guide

- Using Student Achievement Data to Support Instructional Decision Making* included a comprehensive review of the research base (1989-2009).
- Academically oriented data-based decision-making interventions
 - > Reviewed over 3,000 reports and articles
 - > 490 citations
 - > 64 used experimental, quasi-experimental, and single-subject designs to examine whether data use leads to increases in student achievement
- School and LEA levels

* Hamilton et al. (2009)



Five Recommendations from the IES Practice Guide

- Make data part of an ongoing cycle of instructional improvement.
- Teach students to examine their own data and set learning goals.
- Establish a clear vision for schoolwide data use.
- Provide supports that foster a data-driven culture within a school.
- Develop and maintain a districtwide data system.



The Specifics of Data Cultures (1)

>>Leadership!!!!

- > Explicit vision
- > Provide resources
- > Provide dedicated work time
- > Create a culture in which data use is expected
- > Create a culture with openness and trust
 - No shaming and blaming
 - Non-evaluative—not linked to teacher evaluation

>>Leadership from the principal is essential:

"Data use begins and ends in the principal's office!"

--from Earl and Katz, 2006



The Specifics of Data Cultures (2)

- » Appoint a data coach or facilitator
 - > Someone who knows data
 - > Someone with personal interaction skills who can lead a team
 - > If possible, use a distributed leadership model



The Specifics of Data Cultures (3)

>> Create a data team or teams

> Different models of teams

- Horizontal versus vertical
- Cross grade levels
- Grade level
- Content-based
- Course-based

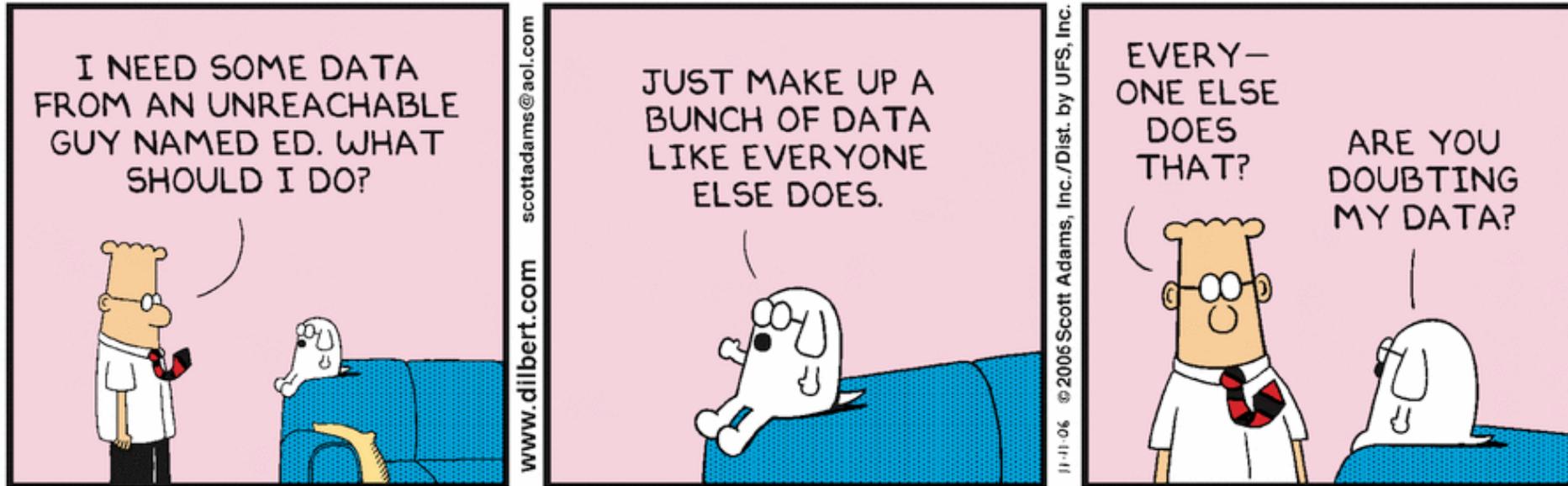


The Specifics of Data Cultures (4)

- Build human capacity through targeted professional development around data literacy
- Focus on data literacy
- Focus on data ethics
- Role-based nature of professional development
- Who?—Anyone who has hands on data—teachers, administrators, coaches, data clerk, food services administrator, transportation director, technology coordinator, testing director, and more



Why Are Data Ethics Important?



Why Is Data Literacy Important?



The Specifics of Data Cultures (5)

- Develop and maintain a districtwide data system
- Select a data system that meets the needs of your district
- Set parameters and regulations about the applications educators can use
- Beware of the potential for data breaches and create a plan for minimizing their adverse consequences



ACTIVITY: Turn and Talk

Turn to a neighbor and discuss

1. How do these ideas about a data culture reflect your own context? How does your context differ?
2. What components of a data culture do you have in place, and what are you missing? What would be the most challenging to start or develop?

An Issue for New and Existing Staff

- Consider a district onboarding process that addresses issues around building the capacity of staff to use data effectively and responsibly
- That means data literacy and data ethics
- Use onboarding and reinforce with ongoing professional development
- Staff need to have a continued, ongoing connection to data

Educators who think data use is an isolated event are mistaken. Data use is an ongoing and interactive inquiry process.



CHOPS: The Challenges and Opportunities in Data Cultures

Many Challenges (1)

- Lack of data literacy
- No understanding of FERPA and data ethics more generally
- Lack of understanding about vetting technologies and apps for possible inappropriate appropriation of and access to data
- No leadership around data; no vision
- A culture of shaming and blaming
- No time, no resources
- Training on the data system rather than data use
- Data use not seen as a priority



Many Challenges (2)

- Not understanding what data are (especially belief that data are only test scores and student indices)
- Sole focus on data for accountability rather than data for continuous improvement
- Staff turnover rather than distributed leadership
- Staff inundated with too much data
- The belief that data use is a finite process rather than an iterative cycle of inquiry
- New challenges presented by virtual and hybrid environments



So, With All the Challenges, Why Use Data? (1)

- » The opportunities are vast if done effectively and responsibly
 - > Better understand each student
 - > Understand the context from which each student comes
 - > Address the whole child
 - > Adopt an asset model versus a deficit model
 - > Help educators to address individual learning needs and help all students to succeed



So, With All the Challenges, Why Use Data? (2)

- » Enhance the productivity of an organization
 - > Improved data accuracy
 - > Improved data usability, resulting from monitoring data content for consistency with the organizational vision and stakeholders' needs
 - > Improved data timelines, accomplished by avoiding unnecessary duplication of data collection efforts and reducing the work necessary to reconcile errors or discrepancies when merging or sharing data
 - > Increased data security, gained by designing a comprehensive security plan and applying appropriate levels of protection to the data based on their level of sensitivity



Translating the Components of Data Cultures in LEAs to SEAs



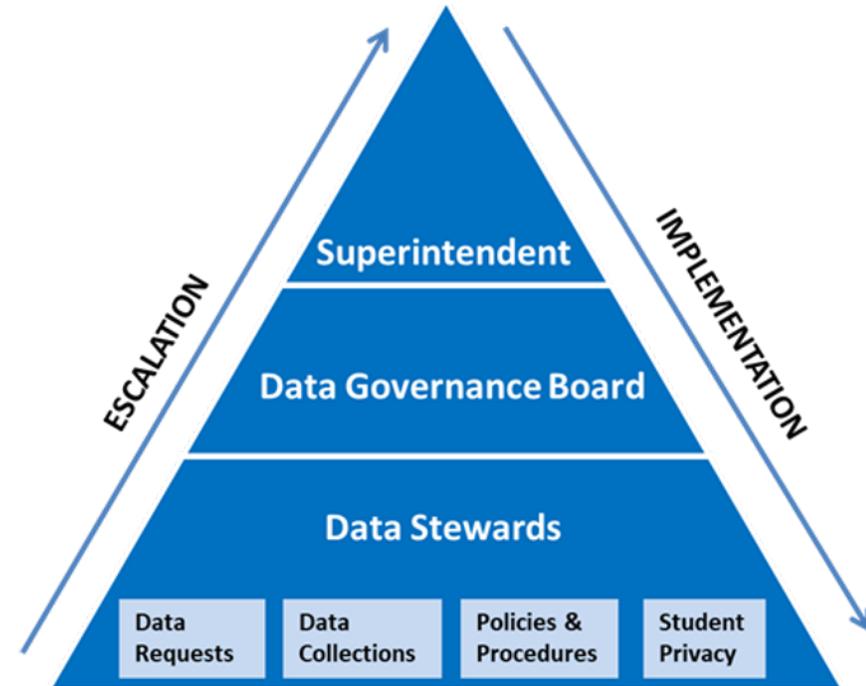
Data Culture LEA vs. SEA

Role	LEA	SEA
Leadership	Principal/ superintendent	Chief/other administrators
Data Literacy	Instructional/ administrative	Administrative
Data Ethics	All staff with hands on data	All staff with hands on data
Data Teaming	Various PLCs	Departmental teams
Data Systems	Data warehouse, apps	SLDS/Other technologies
Vision	From leadership	From leadership
Biggest Challenges	Data literacy, time, accountability pressure	Data quality coming from LEAs

Reality Check: Nevada's Data Culture Journey

Data Culture in Context: Nevada Department of Education

- » 170 full-time employees across three divisions and the superintendent's office
- » Offices in Carson City and Las Vegas
- » Office of Assessment, Data, Accountability Management (ADAM)
 - > Data governance board
 - > Data stewards



Shoring Up Data Infrastructure

- » Data literacy
- » Data governance
- » Explicit vision for data use linked to key work products
- » Accountability issues
- » Staff commitment to data use
- » Leadership around data
- » Data quality coming up for the LEAs
- » Interoperability across various technologies
- » Meeting the needs of various stakeholder groups



Data Governance Mission

The mission of the Nevada Department of Education (NDE) Data Governance Board (Board) is to strengthen and support data-driven decision-making by educational stakeholders via the efficient and secure collection, analysis, distribution, and storage, of the highest quality data.



Data Governance Expectations

1. **Work collaboratively** to adopt rules, policies, and procedures, and processes that support NDE's vision, mission, goals, and strategic priorities from a department-wide perspective—the Board's work must satisfy the varied and diverse needs of NDE's respective offices.
2. **Abide by the Board structure**, roles, and responsibilities.
3. **Abide by Board decisions**, policies, and procedures.
4. **Share collective responsibility** for the success of the Board.
5. **Facilitate transparency** regarding NDE's data-related initiatives and priorities.
6. **Maintain consistency** in decision-making processes and application of NDE's internal policies and procedures.



Data Governance Board Areas of Practice

1. **Setting data standards and compliance**
2. Evaluating data requests
3. **Collaborating on data**
4. Evaluating efficacy of proposed data collections/uses
5. Prioritizing data-related work
6. Evaluating data opportunities
7. Addressing data challenges
8. Data communication/advocacy
9. **Building data capacity**
10. **Strategic data planning—Statewide Plan for the Improvement of Pupils (STIP)**



Nevada's Challenges and Opportunities

Perceived Challenges

- » Data are inaccessible
- » Data are not timely
- » Variable/uneven capacity to analyze data
- » Lack of awareness around NDE-produced data for internal and external stakeholders

Plan of Action/Opportunities

- » Build data literacy
- » Build data use awareness
- » Create/support a data culture
- » Use evidence to inform decision making
- » Strengthen responsiveness to different stakeholders



Example: Data Governance Toolkit

NDE Data Request/Protocol Toolkit

1. Source of request
2. Questions
3. Data
4. Analytics
5. Reporting
6. Statewide Plan for the Improvement of Pupils (STIP) Plan-Do-Study-Act (PDSA)



The Data Highway is a Two-way Street—How SEAs and LEAs Interact

Recognizing the Utility of Data Collection and Use (1)

- Nancy Smith, the former SLDS Grants Program Director, once said: “the data highway must be a two-way street.”
- LEAs collect a plethora of data and send those data to their SEAs, who then send it on to the federal level through EdFacts.
- The feeling is that these data are not useful. Nothing comes back down to the LEAs to help them make the kinds of local decisions with which they are tasked.
- Data must be useful, timely, and relevant along with complete, reliable, and valid.



Recognizing the Utility of Data Collection and Use (2)

- It is likely that there will be continued tension between data for accountability and data for continuous improvement.
- It is likely that educators and stakeholders will continue to have a narrow view of what data are—student indices.
- It is essential to broaden that conception to the most diverse sources of data possible to provide an understanding of the student.
- Firewalls will continue to exist to prevent educators from accessing certain relevant data (e.g., justice, health).

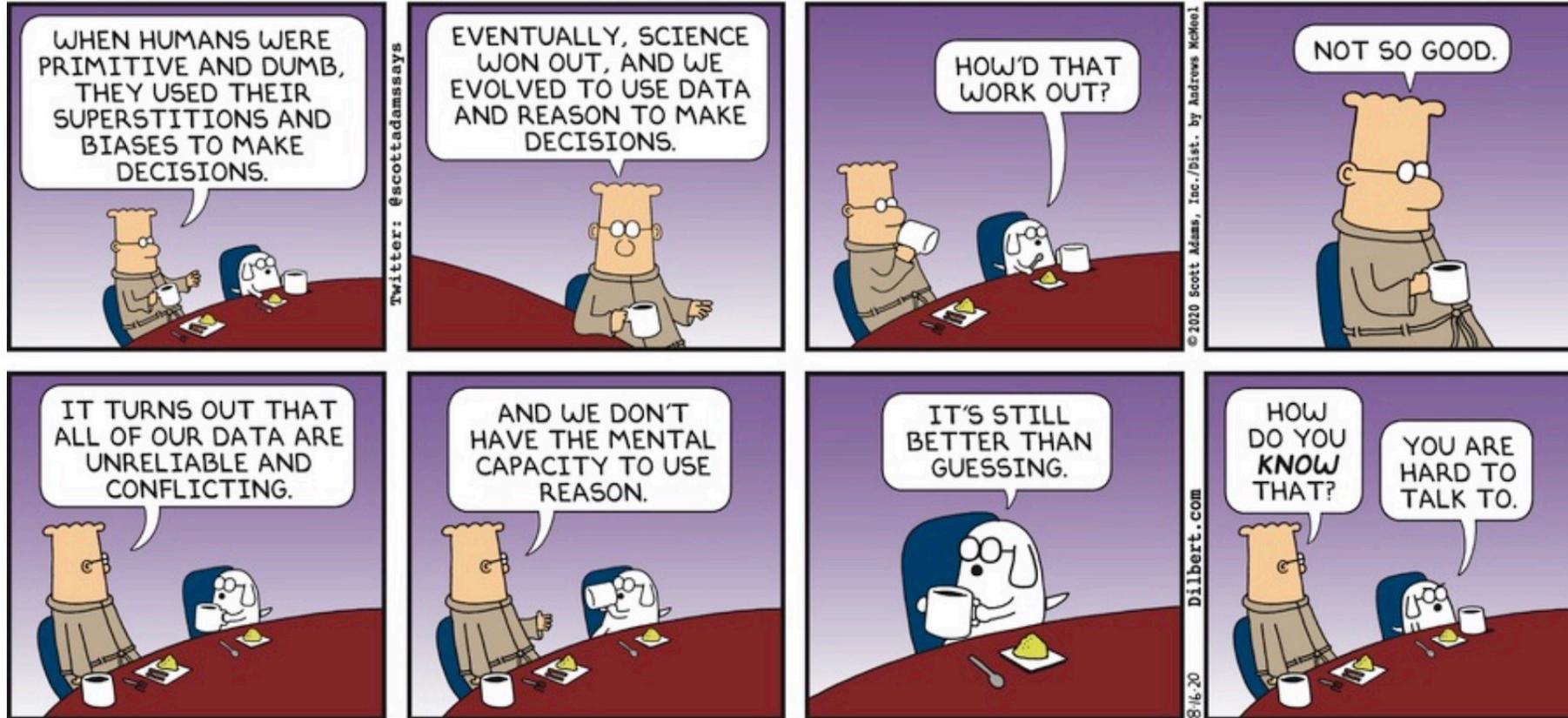


Where Do We Go From Here to Truly Enculturate Data Use?

- Keep in mind that NDE is not unique in its challenges and vulnerabilities. These challenges are common in LEAs and SEAs across the county. Successful enculturation will not happen overnight. This is a long-term process of using data effectively and responsibly.
- It is the responsibility of all individuals in education to ensure that educators have the right data to address the right questions and issues, from which appropriate interpretations and conclusions can be made.
- Fulfilling this responsibility will require a comprehensive look at possible data sources, the collection of new kinds of information, and continued vigilance to ensure student and family privacy are protected.



A Final Word from Dilbert



Let's Hear from You: Your Questions and Thoughts



Selected Links and References

- IES Practice Guide (Hamilton et al., 2009):
<http://files.eric.ed.gov/fulltext/ED506645.pdf>
- Earl, L., & Katz, S. (2006). Leading schools in a data-rich world. Thousand Oaks, CA. Corwin Press.
- Nevada Department of Education data requests:
https://doe.nv.gov/DataCenter/Data_Requests/



Staying in Touch: How to Reach Us

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